

Paper Code: 3105

Programme	Exam Code	Course Code
Bachelor of Science (Medical)	121303	✓ ACE-3221
Bachelor of Science (Non-Medical)		
Bachelor of Science (Computer Science)		
Bachelor of Science (Economics)		
Bachelor of Commerce	121103	
Bachelor of Business Administration	121703	
Bachelor of Business Administration (Airlines and Airport Management)	509503	
Bachelor of Science (Home Science)	119703	
Bachelor of Science (Medical Laboratory Technology)	509703	
Bachelor of Science (Bio-Technology)	120603	
Master of Commerce (FYIP)	508303	
Master of Science (Mathematics) (FYIP)	508403	
Master of Science (Physics) (FYIP)	508603	

Semester-III

Course Title: Environmental Studies (Compulsory)
(260)

Time Allowed: 3 Hours**Max Marks: 35**

Note: Attempt five questions in all, selecting atleast one question from each section. The fifth question may be attempted from any section. Each question carries 7 marks.

Section A

1. What is the need for creating awareness about environment? Describe in detail. 7
2. What is Drought? Write its causes and effects. 7

Section B

3. What do you mean by desertification? What are its causes? 7
4. Write the methods of Conservation of Biodiversity? Explain with examples. 7

Section C

5. What do you mean by disaster? Describe the natural disasters. 7
6. What do you understand by Acid Rain? What are its effects? 7

Section D

7. What do you understand by population explosion? Give major causes of population Explosion. 7
8. Describe various Acts of Environment Protection. 7

Punjabi Version

Section A

1. ਵਾਤਾਵਰਣ (Environment) ਬਾਰੇ ਜਾਗਰੂਕਤਾ ਪੈਦਾ ਕਰਨ ਦੀ ਲੋੜ ਕਿਉਂ ਹੈ? ਇਸ ਦੀ ਵਿਸਥਾਰ ਨਾਲ ਵਿਆਖਿਆ ਕਰੋ। (7)
2. ਸੁਕਾੜ (Drought) ਕੀ ਹੁੰਦਾ ਹੈ? ਇਸ ਦੇ ਕਾਰਣ ਅਤੇ ਪ੍ਰਭਾਵ ਲਿਖੋ। (7)

Section B

3. ਰੇਗਿਸਥਾਨੀਕਰਨ (Desertification) ਨਾਲ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? ਇਸ ਦੇ ਕਾਰਣ ਲਿਖੋ। (7)
4. ਜੈਵਿਕ ਵਿਭਿੰਨਤਾ ਦੇ ਸੰਰਕਸ਼ਣ (Conservation of Biodiversity) ਦੇ ਤਰੀਕੇ ਲਿਖੋ ਅਤੇ ਉਦਾਹਰਣਾਂ ਸਮੇਤ ਸਮਝਾਓ। (7)

Section C

5. ਆਫ਼ਤ (Disaster) ਨਾਲ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? ਕੁਦਰਤੀ ਆਫ਼ਤਾਂ ਦੀ ਵਿਸਥਾਰ ਨਾਲ ਵਿਆਖਿਆ ਕਰੋ। (7)
6. ਐਸਿਡ ਰੇਨ (Acid Rain) ਨਾਲ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? ਇਸ ਦੇ ਪ੍ਰਭਾਵ ਲਿਖੋ। (7)

Section D

7. ਆਬਾਦੀ ਵਿਸਫੋਟ (Population Explosion) ਨਾਲ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? ਆਬਾਦੀ ਵਿਸਫੋਟ ਦੇ ਮੁੱਖ ਕਾਰਣ ਲਿਖੋ। (7)
8. ਵਾਤਾਵਰਣ ਸੁਰੱਖਿਆ ਨਾਲ ਸੰਬੰਧਿਤ ਵੱਖ-ਵੱਖ ਕਾਨੂੰਨ (Acts) ਦਾ ਵਰਣਨ ਕਰੋ। (7)

Hindi Version

Section A

1. वातावरण के प्रति जागरूकता पैदा करने की क्या जरूरत है?
इसे विस्तार से लिखें। 7
2. सूखा क्या होता है? इसके कारण और प्रभाव लिखें। 7

Section B

3. रेगिस्तानीकरण से आप क्या समझते हैं? इसके कारण लिखें। 7
4. जैविक विभिन्नता के संरक्षण के तरीके लिखें और उदहारण सहित समझाएं। 7

Section C

5. आफ़त से आप क्या समझते हैं? कुदरती आफ़तों की विस्तार से व्याख्या करें। 7
6. ऐसिड रेन से आप क्या समझते हैं? इसके प्रभाव लिखें। 7

Section D

7. आबादी विस्फोट से आप क्या समझते हैं? आबादी विस्फोट के मुख्य कारण लिखें। 7
8. वातावरण सुरक्षा से संबंधित भिन्न-भिन्न कानून का वर्णन करें। 7

For Reappear Candidates (Old Syllabus 2023-24))

Paper Code : 9330

of Science (Honours) Mathematics (Semester –III)

Course Title: Environment Studies (Compulsory)

Course Code: AECE-3221

Max Marks: 60

ns – 20 marks. Attempt any 5 questions out of 7. Each question carries 4
eed 2 pages.

- 40 marks, Attempt any 5 questions out of 8. Each question carries 8
ed 5 pages.

Part A

Impact of extracting mineral resources? (4)

ession. (4)

unction of grassland ecosystem. (4)

spots of India. (4)

ect of nuclear pollution. (4)

protection act. (4)

on explosion? (4)

Part B

rmation of dams on forests and tribal people. (8)

and degradation is responsible for desertification. (8)

gy in an ecosystem with reference to producers, consumers and decomposers.

(8)

Hindi Version

प्रश्न – 20 अंक। 7 प्रश्नों में से किसी भी 5 प्रश्नों के उत्तर दें। प्रत्येक प्रश्न 4 अंकों का नहीं होना चाहिए।

0 अंक। 8 प्रश्नों में से किसी भी 5 प्रश्नों के उत्तर दें। प्रत्येक प्रश्न 8 अंकों का होगा। ना चाहिए।

भाग – A

- कर्षण) से होने वाले पर्यावरणीय प्रभाव क्या हैं? (4)
- gical Succession) पर चर्चा कीजिए। (4)
- ी संरचना और कार्य पर चर्चा कीजिए। (4)
- ॉट्स पर चर्चा कीजिए। (4)
- र प्रभावों पर चर्चा कीजिए। (4)
- र संक्षेप में चर्चा कीजिए। (4)
- या समझते हैं? (4)

भाग – B

- जनजातीय लोगों पर क्या प्रभाव पड़ता है — चर्चा कीजिए। (8)
- और भूमि क्षरण (Land Degradation) किस प्रकार मरुस्थलीकरण (Desertification) के (8)
- ों, उपभोक्ताओं और अपघटकों के संदर्भ में ऊर्जा के प्रवाह की व्याख्या कीजिए। (8)
- gered) और स्थानिक (Endemic) प्रजातियों पर चर्चा कीजिए। (8)
- प्रदूषण के कारण, प्रभाव तथा नियंत्रण पर चर्चा कीजिए। (8)
- विस्तृत टिप्पणी लिखिए तथा विश्व के खाद्य संबंधी समस्याओं का वर्णन कीजिए। (8)
- ज संसाधनों के विभिन्न प्रकारों का विस्तारपूर्वक वर्णन कीजिए। (8)
- वके विभिन्न प्रकार बताइए और किसी एक प्राकृतिक संसाधन की व्याख्या कीजिए। (8)

Punjabi Version

ਉਮੀਦਵਾਰਾਂ ਲਈ ਨਿਰਦੇਸ਼

ਭਾਗ – A: ਛੋਟੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ – 20 ਅੰਕ। 7 ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਵੀ 5 ਦੇ ਉੱਤਰ ਦਿਓ। ਹਰ ਪ੍ਰਸ਼ਨ 4 ਅੰਕਾਂ ਦਾ ਹੈ। ਉੱਤਰ 2 ਸਫ਼ਿਆਂ ਤੋਂ ਵੱਧ ਨਹੀਂ ਹੋਣਾ ਚਾਹੀਦਾ।

ਭਾਗ – B: ਨਿਬੰਧ ਪ੍ਰਕਾਰ ਪ੍ਰਸ਼ਨ – 40 ਅੰਕ। 8 ਪ੍ਰਸ਼ਨਾਂ ਵਿੱਚੋਂ ਕਿਸੇ ਵੀ 5 ਦੇ ਉੱਤਰ ਦਿਓ। ਹਰ ਪ੍ਰਸ਼ਨ 8 ਅੰਕਾਂ ਦਾ ਹੈ। ਉੱਤਰ 5 ਸਫ਼ਿਆਂ ਤੋਂ ਵੱਧ ਨਹੀਂ ਹੋਣਾ ਚਾਹੀਦਾ।

ਭਾਗ – A

ਛੋਟੇ ਉੱਤਰ ਵਾਲੇ ਪ੍ਰਸ਼ਨ

1. ਖਨਿਜ ਸੰਸਾਧਨਾਂ ਦੇ ਖੋਦਣ (ਨਿਕਾਸ) ਨਾਲ ਪਰਿਆਵਰਣ ਉੱਤੇ ਕੀ ਪ੍ਰਭਾਵ ਪੈਂਦੇ ਹਨ? (4)
2. ਪਰਿਆਵਰਣਕ ਉੱਤਰਾਧਿਕਾਰੀ ਪ੍ਰਕਿਰਿਆ (Ecological Succession) ਬਾਰੇ ਚਰਚਾ ਕਰੋ। (4)
3. ਘਾਹਦਾਰ ਇਕੋਸਿਸਟਮ ਦੀ ਬਣਤਰ ਅਤੇ ਕਾਰਜ ਬਾਰੇ ਚਰਚਾ ਕਰੋ। (4)
4. ਭਾਰਤ ਦੇ ਜੈਵਿਕ ਵਿਭਿੰਨਤਾ ਹਾਟਸਪਾਟਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ। (4)
5. ਪਰਮਾਣੂ ਪ੍ਰਦੂਸ਼ਣ ਦੇ ਕਾਰਣ ਅਤੇ ਪ੍ਰਭਾਵ ਬਾਰੇ ਚਰਚਾ ਕਰੋ। (4)
6. ਜੰਗਲੀ ਜੀਵ ਸੰਰਕਸ਼ਣ ਐਕਟ ਬਾਰੇ ਸੰਖੇਪ ਵਿੱਚ ਚਰਚਾ ਕਰੋ। (4)
7. ਆਬਾਦੀ ਵਿਸਫੋਟ ਦਾ ਕੀ ਅਰਥ ਹੈ? (4)

ਭਾਗ – B

ਨਿਬੰਧ ਪ੍ਰਕਾਰ ਪ੍ਰਸ਼ਨ

1. ਬੰਨ੍ਹਾਂ ਦੇ ਨਿਰਮਾਣ ਦਾ ਜੰਗਲਾਂ ਅਤੇ ਆਦਿਵਾਸੀ ਲੋਕਾਂ ਉੱਤੇ ਕੀ ਪ੍ਰਭਾਵ ਪੈਂਦਾ ਹੈ — ਚਰਚਾ ਕਰੋ। (8)
2. ਮਿੱਟੀ ਦੇ ਕਟਾਅ (Soil Erosion) ਅਤੇ ਜ਼ਮੀਨ ਦੇ ਖਰਾਬ ਹੋਣ (Land Degradation) ਨਾਲ ਰੇਗਿਸਥਾਨੀਕਰਨ (Desertification) ਕਿਵੇਂ ਹੁੰਦਾ ਹੈ, ਸਮਝਾਓ। (8)
3. ਇਕੋਸਿਸਟਮ ਵਿੱਚ ਊਰਜਾ ਦੇ ਪ੍ਰਵਾਹ ਨੂੰ ਉਤਪਾਦਕਾਂ, ਉਪਭੋਗਤਾਵਾਂ ਅਤੇ ਵਿਘਟਕਾਂ ਦੇ ਸੰਦਰਭ ਵਿੱਚ ਸਮਝਾਓ। (8)
4. ਭਾਰਤ ਦੀਆਂ ਖਤਰਨਾਕ (Endangered) ਅਤੇ ਸਥਾਨਕ (Endemic) ਪ੍ਰਜਾਤੀਆਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ। (8)
5. ਪ੍ਰਦੂਸ਼ਣ ਕੀ ਹੈ? ਪਾਣੀ ਅਤੇ ਮਿੱਟੀ ਦੇ ਪ੍ਰਦੂਸ਼ਣ ਦੇ ਕਾਰਣ, ਪ੍ਰਭਾਵ ਅਤੇ ਨਿਯੰਤਰਣ ਬਾਰੇ ਚਰਚਾ ਕਰੋ। (8)
6. ਖਾਦ ਪਦਾਰਥਾਂ ਦੀ ਸਥਿਤੀ ਬਾਰੇ ਵਿਸਤ੍ਰਿਤ ਟਿੱਪਣੀ ਲਿਖੋ ਅਤੇ ਸੰਸਾਰ ਭਰ ਦੀਆਂ ਖਾਦ ਸਮੱਸਿਆਵਾਂ ਦਾ ਵਰਣਨ ਕਰੋ। (8)
7. ਖਨਿਜ ਸੰਸਾਧਨ ਕੀ ਹਨ? ਵੱਖ-ਵੱਖ ਪ੍ਰਕਾਰ ਦੇ ਖਨਿਜ ਸੰਸਾਧਨਾਂ ਦਾ ਵਿਸਤ੍ਰਿਤ ਵਰਣਨ ਕਰੋ। (8)
8. ਕੁਦਰਤੀ ਸੰਸਾਧਨ ਕੀ ਹਨ? ਉਨ੍ਹਾਂ ਦੇ ਵੱਖ-ਵੱਖ ਪ੍ਰਕਾਰ ਦੱਸੋ ਅਤੇ ਕਿਸੇ ਇੱਕ ਕੁਦਰਤੀ ਸੰਸਾਧਨ ਦੀ ਵਿਆਖਿਆ ਕਰੋ। (8)

(For Reappear Candidates Only (Session 2024-25))

Exam Code: 107203

Paper Code: 9344

Bachelor of Computer Applications (Semester-III)

Course Title: Environment Studies (Compulsory)

Course Code: AECE-3221

Time Allowed: 3 Hrs.

Max Marks: 30

PART – A

Note: Attempt any 5 questions. Each question carries 2 marks. Length of the answer should not exceed 1 page.

1. What do you mean by environmental education? (2)
2. Describe the importance of forest? (2)
3. What do you mean by food chain explain with example. (2)
4. What do you mean by Desertification. (2)
5. What is AIDS? Write the full form of AIDS. (2)
6. What is the concept of Biodiversity? (2)
7. What do you understand by Green house effect? (2)

PART – B

Note: Attempt any 5 questions. Each question carries 4 marks. Length of the answer should not exceed 3 pages.

1. What do you mean by water pollution? Explain the sources? (4)
2. What are aquatic ecosystems? Describe them. (4)
3. What are the effects of air pollution on human health? (4)
4. Explain food chain and food web. Write the importance of food chain and food web. (4)
5. What is global warming? What are its effects? (4)
6. What are the effects of overpopulation on environment? (4)
7. What do you understand by sustainable and non sustainable development? (4)
8. Explain Environment Protection Act (4)

भाग – A

नोट: किसी भी 5 प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न 2 अंक का है। उत्तर की लंबाई 1 पृष्ठ से अधिक नहीं होनी चाहिए।

1. पर्यावरण शिक्षा से आप क्या समझते हैं? (2)
2. वन के महत्व का वर्णन कीजिए। (2)
3. खाद्य श्रृंखला (Food Chain) से आप क्या समझते हैं? उदाहरण सहित समझाइए। (2)
4. मरुस्थलीकरण (Desertification) से आप क्या समझते हैं? (2)
5. एड्स (AIDS) क्या है? एड्स का पूरा नाम लिखिए। (2)
6. जैव विविधता (Biodiversity) की संकल्पना क्या है? (2)
7. ग्रीनहाउस प्रभाव (Greenhouse Effect) से आप क्या समझते हैं? (2)

भाग – B

नोट: किसी भी 5 प्रश्नों के उत्तर दीजिए। प्रत्येक प्रश्न 4 अंक का है। उत्तर की लंबाई 3 पृष्ठों से अधिक नहीं होनी चाहिए।

1. जल प्रदूषण (Water Pollution) से आप क्या समझते हैं? इसके स्रोतों की व्याख्या कीजिए। (4)

2. ਜਲੀਯ ਪਾਰਿਸ਼ਿਸ਼ਟ (Aquatic Ecosystems) ਕੀ ਹੈ? ਉਨਕਾ ਵਰਣਨ ਕੀਜੀਏ। (4)
3. ਵਾਯੂ ਪ੍ਰਦੂਸ਼ਣ (Air Pollution) ਦੇ ਮਾਨਵ ਸਵਾਸਥਯ ਪਰ ਕੀ ਪ੍ਰਭਾਵ ਪੜ੍ਹਦੇ ਹਨ? (4)
4. ਖਾਦ ਖ਼ਿੰਕਲਾ (Food Chain) ਅਤੇ ਖਾਦ ਜਾਲ (Food Web) ਦੀ ਵਯਾਖ਼ਯਾ ਕੀਜੀਏ। ਇਨਕੇ ਮਹਤਵ ਲਿਖੀਏ। (4)
5. ਵੈਸ਼ਵਿਕ ਊਸ਼ਮੀਕਰਣ (Global Warming) ਕੀ ਹੈ? ਇਸਕੇ ਪ੍ਰਭਾਵ ਬਤਾਏਏ। (4)
6. ਜਨਸੰਖਯਾ ਵ੍ਰਦ੍ਹਿ (Overpopulation) ਦੇ ਪਰਯਾਵਰਣ ਪਰ ਕੀ ਪ੍ਰਭਾਵ ਪੜ੍ਹਦੇ ਹਨ? (4)
7. ਸਤਤ (Sustainable) ਅਤੇ ਅਸਤਤ (Non-Sustainable) ਵਿਕਾਸ ਸੇ ਆਪ ਕੀ ਸਮਝਦੇ ਹਨ? (4)
8. ਪਰਯਾਵਰਣ ਸੰਰਕਸ਼ਣ ਅਧਿਨਿਯਮ (Environment Protection Act) ਦੀ ਵਯਾਖ਼ਯਾ ਕੀਜੀਏ। (4)

ਭਾਗ – A

ਨੋਟ: ਕਿਸੇ ਵੀ 5 ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ। ਹਰ ਪ੍ਰਸ਼ਨ 2 ਅੰਕ ਦਾ ਹੈ। ਉੱਤਰ ਦੀ ਲੰਬਾਈ 1 ਪੰਨਾ ਤੋਂ ਵੱਧ ਨਹੀਂ ਹੋਣੀ ਚਾਹੀਦੀ।

1. ਵਾਤਾਵਰਣੀਕ ਸਿੱਖਿਆ (Environmental Education) ਨਾਲ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? (2)
2. ਜੰਗਲਾਂ ਦਾ ਮਹੱਤਵ ਦਰਸਾਓ। (2)
3. ਖੁਰਾਕ ਲੜੀ (Food Chain) ਕੀ ਹੁੰਦੀ ਹੈ? ਉਦਾਹਰਨ ਨਾਲ ਸਮਝਾਓ। (2)
4. ਰੇਗਿਸਥਾਨੀਕਰਨ (Desertification) ਨਾਲ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? (2)
5. ਐਡਜ਼ (AIDS) ਕੀ ਹੈ? ਐਡਜ਼ ਦਾ ਪੂਰਾ ਨਾਮ ਲਿਖੋ। (2)
6. ਜੈਵ ਵਿਭਿੰਨਤਾ (Biodiversity) ਦੀ ਸੰਕਲਪਨਾ ਕੀ ਹੈ? (2)
7. ਗ੍ਰੀਨਹਾਊਸ ਪ੍ਰਭਾਵ (Greenhouse Effect) ਨਾਲ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? (2)

ਭਾਗ – B

ਨੋਟ: ਕਿਸੇ ਵੀ 5 ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ। ਹਰ ਪ੍ਰਸ਼ਨ 4 ਅੰਕ ਦਾ ਹੈ। ਉੱਤਰ ਦੀ ਲੰਬਾਈ 3 ਪੰਨਿਆਂ ਤੋਂ ਵੱਧ ਨਹੀਂ ਹੋਣੀ ਚਾਹੀਦੀ।

1. ਪਾਣੀ ਦਾ ਪ੍ਰਦੂਸ਼ਣ (Water Pollution) ਕੀ ਹੈ? ਇਸ ਦੇ ਸਰੋਤਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ। (4)
2. ਜਲ ਜੀਵ ਤੰਤਰ (Aquatic Ecosystems) ਕੀ ਹਨ? ਉਨ੍ਹਾਂ ਦਾ ਵੇਰਵਾ ਦਿਓ। (4)
3. ਹਵਾ ਦੇ ਪ੍ਰਦੂਸ਼ਣ (Air Pollution) ਦਾ ਮਨੁੱਖੀ ਸਿਹਤ 'ਤੇ ਕੀ ਅਸਰ ਪੈਂਦਾ ਹੈ? (4)
4. ਖੁਰਾਕ ਲੜੀ (Food Chain) ਅਤੇ ਖੁਰਾਕ ਜਾਲ (Food Web) ਦੀ ਵਿਆਖਿਆ ਕਰੋ। ਉਨ੍ਹਾਂ ਦਾ ਮਹੱਤਵ ਦੱਸੋ। (4)
5. ਗਲੋਬਲ ਵਾਰਮਿੰਗ (Global Warming) ਕੀ ਹੈ? ਇਸ ਦੇ ਪ੍ਰਭਾਵ ਦੱਸੋ। (4)
6. ਅਬਾਦੀ ਵੱਧਣ (Overpopulation) ਦਾ ਵਾਤਾਵਰਣ 'ਤੇ ਕੀ ਅਸਰ ਹੁੰਦਾ ਹੈ? (4)
7. ਸਥਿਰ ਵਿਕਾਸ (Sustainable Development) ਅਤੇ ਅਸਥਿਰ ਵਿਕਾਸ (Non-Sustainable Development) ਨਾਲ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? (4)
8. ਵਾਤਾਵਰਣ ਸੰਰੱਖਣ ਕਾਨੂੰਨ (Environment Protection Act) ਦੀ ਵਿਆਖਿਆ ਕਰੋ। (4)

Paper Code: 3111

Programme	Course Code	Exam Code
Bachelor of Arts (Semester – III)	BARL-3026 ✓	121203
Bachelor of Science (Semester – III) ✓	BECL-3026 ✓	121303

Course Title: Banking (General Awareness)

Time: 2:00 Hours

Max. Marks: 70

Note: Candidates are required to attempt thirty five (35) questions, selecting at least seven (7) questions from each section. The remaining seven (7) questions may be attempted from any section. Each question carries 2 marks.

Section-A

- Which one of the following places is not located in the Punjab province of Pakistan?
a) Harrapa b) Jalilpur c) Dera Ismail Khan d) Mohenjodaro
- Which of the following is the oldest Vedas?
a) Samveda b) Yajurveda c) Rigveda d) Atharvaveda
- Which was the first European power to arrive in India by sea?
a) British b) Dutch c) Portuguese d) French
- Who wrote the Epic 'Mahabharata'?
a) Ved Vyas b) Valmiki c) Gopala d) Max Muller
- The Jallianwala Bagh massacre took place in—
a) 1917 b) 1918 c) 1919 d) 1920
- The Simon Commission came to India in—
a) 1925 b) 1927 c) 1928 d) 1930
- Who wrote the book Hind Swaraj?
a) Bal Gangadhar Tilak b) Mahatma Gandhi
c) Jawaharlal Nehru d) Rabindranath Tagore
- Harappan Civilization is also known as:
a) Indus Valley Civilization b) Mesopotamian Civilization
c) Egyptian Civilization d) Chinese Civilization
- Harappa is situated in present-day:
a) India b) Pakistan c) Afghanistan d) Nepal
- When did Second Battle of Panipat fought?
a) 1556 b) 1560 c) 1530
- What was the main occupation of the people of Mohenjo-daro?
a) Agriculture b) Fishing c) Hunting d) Iron making
- Who was the founder of the Mughal Empire in India?
a) Akbar b) Humayun c) Babur d) Sher Shah Suri
- Who wrote the famous book Ain-i-Akbari?
a) Abul Fazl b) Faizi c) Badauni d) Todar Mal

Section-B

14. Which of the following article of Indian Constitution deals with the Fundamental duties?
a) Articles 51 'A' b) Articles 51 'B' c) Articles 52 'A' d) Articles 52 'B'
15. Who designed the National Flag of India?
a) Rabindranath Tagore b) Bankim Chandra Chatterjee
c) Pingali Venkayya d) Jawaharlal Nehru
16. How many types of writs can be issued by Supreme Court to protect the fundamental rights of Indian citizens?
a) Six b) Four c) Five d) Seven
17. The Directive Principle of State policy had been borrowed from which country?
a) United States b) Australia c) South Africa d) Ireland
18. Who was the first Election Commissioner of India?
a) Sukumar Sen b) VS Ramadevi
c) Shankar Dayal Sharma d) Rajendra Prasad
19. Who is known as guardian of fundamental rights?
a) High Court b) Supreme Court c) Government d) International court
20. Who is the supreme commander of the Armed Forces?
a) Prime minister b) President c) Defence minister d) Army chief
21. Fundamental rights-
a) Cannot be suspended
b) Can be suspended by order of Prime minister
c) Can be suspended on the will of President
d) Can be suspended during emergency
22. The first Lok Sabha was constituted in:
a) 1947 b) 1949 c) 1950 d) 1952
23. When is Constitution Day observed in India?
a) 26 November b) January c) 15 August d) 15 June
24. The Preamble declares India to be:
a) Sovereign, Socialist, Democratic, Republic
b) Sovereign, Democratic, Republic
c) Sovereign, Socialist, Secular, Democratic, Republic
d) Socialist, Secular, Democratic
25. The Election Commission of India is a:
a) Constitutional Body b) Statutory Body
c) Executive Body d) Non-Governmental Organization
26. Rajya Sabha is also known as:
a) House of the People b) Council of States
c) Upper House of Judiciary d) Legislative Assembly

Section-C

27. The Planning Commission of India was established in which year?
a) 1947 b) 1948 c) 1950 d) 1951
28. The Green Revolution was launched during which plan?
a) Third Plan b) Fourth Plan c) Fifth Plan d) Sixth Plan
29. The main theme of 12th Five year plan was-
a) Removal of poverty b) Faster, more Inclusive and Sustainable Growth
c) Growth and Stability d) Achievement of Self Reliance
30. GST came into effect in India from:
a) 1st January 2017 b) 1st April 2017 c) 1st July 2017 d) 1st August 2017
31. Which of the below import duties would be imposed?
a) CGST b) SGST c) IGST d) CGST and SGST
32. The concept of Five-Year Plans in India was borrowed from which country?
a) USA b) USSR (Soviet Union) c) China d) UK
33. The first Five-Year Plan (1956–61) was based on the ideas of which model?
a) Harrod-Domar Model b) Mahalanobis Model
c) Gandhian Model d) Nehruvian Model
34. The Finance Commission of India is a:
a) Constitutional Body b) Statutory Body
c) Executive Body d) Advisory Body
35. The Finance Commission is appointed after every:
a) 3 years b) 4 years c) 5 years d) 10 years
36. How many types of GST are there in India?
a) one b) two c) three d) four
37. The main objective of Fiscal Policy is to:
a) Control inflation b) Promote economic growth
c) Reduce unemployment d) All of the above
38. Wealth Tax was abolished in India in which year?
a) 2012 b) 2014 c) 2015 d) 2016
39. Which of the following is not a Direct Tax?
a) Income Tax b) Corporate Tax c) GST d) Capital Gains Tax

Section-D

40. Which scheme focuses on providing internships for youth across various sectors, recently launched in 2024?
a) PM Awas Yojana b) Prime Minister Internship Scheme
c) Jal Jeevan Mission d) PM Kisan Samman Nidhi

41. Which organization primarily monitors global labor standards and workers' rights?
a) IMF b) World Bank c) ILO d) SAARC
42. UNO has how many principal organs?
a) 4 b) 6 c) 5 d) 7
43. Which of the following countries is not a member of SAARC?
a) India b) Nepal c) Afghanistan d) Myanmar
44. BRICS is a group of emerging economies. Which countries are members?
a) Brazil, Russia, India, China, South Africa
b) Brazil, Russia, India, China, Mexico
c) Brazil, Russia, India, China, Indonesia
d) Brazil, Russia, India, China, Egypt
45. A key goal of the ADB is:
a) Poverty reduction and inclusive growth in Asia-Pacific
b) Monetary policy control globally
c) Labor rights enforcement
d) Peacekeeping in Asia
46. SAARC stands for:
a) South Asian Association for Regional Cooperation
b) South Asian Alliance for Resource Coordination
c) South American Association for Regional Cooperation
d) South Asian Alliance for Renewable Commerce
47. The World Bank publishes which key report annually?
a) Global Peace Index b) World Development Report
c) Human Development Report d) Global Labor Report
48. When is World Environment Day celebrated?
a) 15 September b) 5 June c) 5 September d) 26 January
49. Who is the current Defence Minister of India?
a) Nirmala Sitharaman b) Rajnath Singh
c) Nirmala Sitharaman d) Piyush Goyal
50. When is National Science Day celebrated in India?
a) 28 February b) 22 April c) 1 July d) 15 August
51. Who is the current Home Minister of India?
a) Nitin Gadkari b) Amit Shah c) Rajnath Singh d) Smriti Irani
52. Who is the Governor of Punjab?
a) R. N. Ravi b) Bandaru Dattatreya
c) Gulab Chand Kataria d) Anandiben Patel

Paper Code: 3102

Programme	Exam Code	Course Code
Bachelor of Arts	121203	BARL-3031
Bachelor of Science (Medical)	121303	BSML-3031 ✓
Bachelor of Science (Non-Medical)		BSNL-3031 ✓
Bachelor of Science (Computer Science)		BCSL-3031 ✓
Bachelor of Science (Economics)		BECL-3031
Bachelor of Commerce	121103	BCRL-3031
Bachelor of Business Administration	121703	BBRL-3031

Semester-III**Course Title: Basic Punjabi****(30)****Time Allowed: 3 Hours****Max Marks: 70**

ਨੋਟ- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 14 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ-1

- ਘਰ ਇੱਟਾਂ ਜਾਂ ਵੱਟੀਆਂ ਦੇ ਬਣੇ ਕੋਠੇ ਨਹੀਂ ਹੁੰਦੇ ਘਰ ਤੋਂ ਭਾਵ ਉਹ ਥਾਂ ਹੈ ਜਿੱਥੇ ਮਨੁੱਖ ਦੇ ਪਿਆਰ ਤੇ ਸੱਧਰਾਂ ਪਾਲਦੀਆਂ ਹਨ ਜਿੱਥੇ ਬਚਪਨ

ਵਿੱਚ ਮਾਂ ਭੈਣ ਤੇ ਭਰਾ ਕੋਲੋਂ ਲਾਡ ਲਿਆ ਹੁੰਦਾ ਹੈ, ਜਿੱਥੇ ਜਵਾਨੀ ਵਿੱਚ ਸਾਰੇ ਜਹਾਨ ਨੂੰ ਗਾਹ ਤੇ ਲਿਤਾੜ ਤੇ ਖੱਟੀ ਕਮਾਈ ਕਰਕੇ ਮੁੜ ਆਉਣ ਨੂੰ ਜੀ ਕਰਦਾ ਹੈ, ਜਿੱਥੇ ਬੁਢਾਪੇ ਵਿੱਚ ਬਹਿ ਕੇ ਸਾਰੇ ਜੀਵਨ ਦੇ ਝਮੇਲਿਆਂ ਤੋਂ ਮਿਲੀ ਵਿਹਲ ਨੂੰ ਆਰਾਮ ਨਾਲ ਕੱਟਣ ਵਿੱਚ ਇਉਂ ਸਵਾਦ ਆਉਂਦਾ ਹੈ, ਜਿਵੇਂ ਬਚਪਣ ਵਿੱਚ ਮਾਂ ਦੀ ਝੋਲੀ ਵਿੱਚ ਆਉਂਦਾ ਸੀ। ਘਰ ਮਨੁੱਖ ਦੇ ਨਿੱਜੀ ਵਲਵਲਿਆਂ ਤੇ ਸ਼ਖਸੀਅਤ ਦਾ ਕੇਂਦਰ ਹੁੰਦਾ ਹੈ। ਉਸ ਆਚਰਨ ਬਣਾਉਣ ਵਿੱਚ ਜਿੱਥੇ ਸਮਾਜਿਕ ਤੇ ਆਲੇ ਦੁਆਲੇ ਦਾ ਅਸਰ ਵੀ ਘੱਟ ਕੰਮ ਨਹੀਂ ਕਰਦਾ। ਉੱਥੇ ਘਰ ਦੀ ਚਾਰ-ਦੀਵਾਰੀ ਅਤੇ ਇਸ ਦੇ ਅੰਦਰ ਦੇ ਹਲਾਤਾਂ ਦਾ ਅਸਰ ਵੀ ਘੱਟ ਕੰਮ ਨਹੀਂ ਕਰਦਾ। ਸਗੋਂ ਮਨੁੱਖ ਦਾ ਆਚਰਨ ਬਣਦਾ ਹੀ ਘਰ ਵਿੱਚ ਹੈ। ਇਹੋ ਉਸ ਦੀਆਂ ਰੁਚੀਆਂ ਅਤੇ ਸੁਭਾਅ ਦਾ ਸਾਂਚਾ ਹੈ। ਕਈ ਵਾਰੀ ਜਦ ਮੈਂ ਕਿਸੇ ਸੱਜਣ ਨੂੰ ਕੋਝੇ ਸੜੀਅਲ ਜਾਂ ਖਿਜੂ ਸਭਾ ਵਾਲਾ ਵੇਖਦਾ ਹਾਂ ਤਾਂ ਮੈਂ ਦਿਲ ਵਿੱਚ ਕਹਿੰਦਾ ਹਾਂ ਇਸ ਵਿਚਾਰੇ ਨੂੰ ਘਰ ਦਾ ਪਿਆਰ ਨਹੀਂ ਮਿਲਿਆ ਹੋਣਾ।

ਉੱਪਰਲੇ ਪੈਰੂ ਨੂੰ ਧਿਆਨ ਨਾਲ ਪੜ੍ਹੋ ਅਤੇ ਹੇਠਾਂ ਲਿਖੇ ਪ੍ਰਸ਼ਨ ਦੇ ਉੱਤਰ ਦਿਓ।

ੳ) ਘਰ ਤੋਂ ਕੀ ਭਾਵ ਹੈ?

ਅ) ਘਰ ਤੋਂ ਮਨੁੱਖ ਨੂੰ ਕੀ ਮਿਲਦਾ ਹੈ?

ੲ) ਲੇਖਕ ਅਨੁਸਾਰ ਘਰ ਦਾ ਆਚਰਨ ਕਿੱਥੇ ਬਣਦਾ ਹੈ?

ਸ) ਪੈਰੂ ਦਾ ਢੁਕਵਾਂ ਸਿਰਲੇਖ ਲਿਖੋ?

2. ਸਰਲ ਅੰਗਰੇਜ਼ੀ ਪੈਰੂ ਦਾ ਪੰਜਾਬੀ ਵਿੱਚ ਅਨੁਵਾਦ ਕਰੋ।

Parents want their children to devote themselves to their studies so that at the end of their student life, they get good jobs, earn their livelihood and also support their old parents but many a time they get involved in college union elections and become a tool in hands of outsiders, or they waste their precious time in seeing movies and dining in hotels. When they enter life, they repent for not accepting the advice of their parents.

ਸੈਕਸ਼ਨ-II

3. ਹੇਠਾਂ ਲਿਖੇ ਕਾਵਿ-ਟੋਟੇ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰੋ।

‘ਮੈਂ ਪੰਜਾਬੀ ਪੰਜਾਬ ਦਾ ਰਹਿਣ ਵਾਲਾ
ਹਾਂ ਮੈਂ ਪੇਂਡੂ ਪਰ ਸ਼ਹਿਰੀਏ ਰੰਗਦਾ ਹਾਂ,
ਸਮਝਾਂ ਪਾਰਸੀ ਉਰਦੂ ਵੀ ਖੂਬ ਬੋਲਾਂ,
ਥੋੜ੍ਹੀ ਬਹੁਤੀ ਅੰਗਰੇਜ਼ੀ ਵੀ ਅੰਗਦਾ ਹਾਂ,
ਬੋਲੀ ਆਪਣੀ ਨਾਲ ਪਿਆਰ ਰੱਖਾਂ,
ਇਹ ਗੱਲ ਆਖਣੋਂ ਕਦੇ ਨਾ ਸੰਗਦਾ ਹਾਂ।

4. 'ਸਮਾਂ' ਕਵਿਤਾ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ 'ਚ ਲਿਖੋ?

ਸੈਕਸ਼ਨ-III

5. 'ਉਹ ਸੋਚਦੀ' ਕਹਾਣੀ ਦਾ ਸਾਰ ਲਿਖੋ?
6. 'ਦੁੱਧ ਦਾ ਛੱਪੜ' ਕਹਾਣੀ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਵਿਸਥਾਰ ਨਾਲ ਲਿਖੋ?

ਸੈਕਸ਼ਨ-IV

7. 'ਆਓ ਗੱਲਾਂ ਕਰੀਏ' ਨਿਬੰਧ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ?
8. 'ਘਰ ਦਾ ਪਿਆਰ' ਨਿਬੰਧ ਦਾ ਸਾਰ ਲਿਖੋ?

Paper Code: 3109

Programme	Course Code	Exam Code
Bachelor of Arts	BARL-3175	121203
Bachelor of Science	BECL-3175	121303

Semester - III**Course Title: Economics (Indian Economy)****Time: 3 Hours****Theory: 70**

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

Section – A

1. What are the major causes of low agricultural productivity in India? Suggest suitable measures to overcome them.
2. Why agriculture is considered as the backbone of rural India? How does agriculture contribute to employment, income, and industrial development in India?

Section – B

3. Critically examine the role of industrialization in India's economic development. What major constraints have hindered industrial growth in recent decades?
4. Evaluate the role of the public sector in the Indian economy. How has its role evolved from the Nehruvian era to the present period?

Section – C

5. Discuss the major changes in the direction and composition of India's foreign trade since the economic reforms of 1991. What factors have influenced these changes?
6. Discuss the role of foreign capital in India's economic development. What are the major forms of foreign investment, and how have they evolved since liberalization?

Section – D

7. Examine the nature and types of unemployment in India. Discuss the effectiveness of government schemes for employment generation.
8. Critically evaluate the present system of direct and indirect taxation in India. What challenges remain in creating a more equitable and efficient tax system?

For Reappear Candidates (2024-25)**Paper Code: 9356**

Programme	Course Code	Exam Code
Bachelor of Arts	BARL-3175	121203
Bachelor of Science	BECL-3175	121303

Semester - III**Course Title: Economics (Indian Economy)****Time: 3 Hours****Theory: 80**

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 16 marks.

Section – A

1. What are the major causes of low agricultural productivity in India? Suggest suitable measures to overcome them.
2. Why agriculture is considered as the backbone of rural India? How does agriculture contribute to employment, income, and industrial development in India?

Section – B

3. Critically examine the role of industrialization in India's economic development. What major constraints have hindered industrial growth in recent decades?
4. Evaluate the role of the public sector in the Indian economy. How has its role evolved from the Nehruvian era to the present period?

Section – C

5. Discuss the major changes in the direction and composition of India's foreign trade since the economic reforms of 1991. What factors have influenced these changes?
6. Discuss the role of foreign capital in India's economic development. What are the major forms of foreign investment, and how have they evolved since liberalization?

Section – D

7. Examine the nature and types of unemployment in India. Discuss the effectiveness of government schemes for employment generation.
8. Critically evaluate the present system of direct and indirect taxation in India. What challenges remain in creating a more equitable and efficient tax system?

Exam Code : 103303

Paper Code : 9312

Bachelor of Arts (Semester-III)

Course Title: English (Elective)

Course Code: BARL-3198 ✓

Time Allowed : 3 Hours

Max. Marks : 80

Section-A

Q. 1. Explain any 3 of the literary terms in about 100 words each. Each question carries 4 marks (3*4=12)

Beast Fable

Conflict

Dystopia

Resolution

Ballad

Section-B

Q. 2. Transcribe phonetically any 12 words:

(12*1=12)

Agony

Antonym

Academy

Adversity

Privacy

Certify

Competition

Capacity

Sky

Black

Best

Ink

Equal

Credit

Colon

Friend

Section-C

Q. 3. Explain any 1 of the passages with reference to the context:

(1*8=8)

a) "All animals are equal, but some animals are more equal than others".

b) "I shall work harder".

Q. 4. Answer any 2 questions in about 500 words each:

(2*10=20)

a) Examine critically the plot of Animal Farm.

b) Describe how Mr. Jones is driven out of Manor Farm.

c) Write a character sketch of Squalor.

Section-D

Q. 5. Explain any 1 of the passages with reference to the context:

(1*8=8)

a) "Enough of science and of art/ Close up these barren leaves. "

b) "I am the daughter of earth and water/ And the nursling of the sky".

Q. 6. Answer any 2 of the following questions in about 500 words each;

(2*10=20)

a) Sum up the main idea of the poem "Futility".

b) Write a critical summary of the poem "Leave This Chanting".

c) Elaborate the theme of the poem "Spinster".

(For Additional Subject Candidates (2021-22 and 2022-23))

Exam Code: 103203

Paper Code: 8301

Bachelor of Arts - Semester III
 Course Title: English (Elective)
 Course Code: BARL-3198

Time Allotted: 3 Hours

Max Marks: 100

Section-A

Q. 1. Explain any 3 of the literary terms in about 100 words each. Each question carries 4 marks

- a) Allusion
- b) Romantic Age
- c) Conflict
- d) Utopia
- e) Resolution

(3*4=12)

Section-B

Q. 2. Transcribe phonetically any 12 words:

- a) Aeroplane
- b) Absolute
- c) Academy
- d) Adversity
- e) Mathematics
- f) Biography
- g) Competition
- h) Capacity
- i) Sky
- j) Dental
- k) Blue
- l) Ink
- m) Jacket
- n) Class
- o) Colonel
- p) Friend

(12*1=12)

Section-C

Q. 3. Explain any 1 of the passages with reference to the context:

- a) "All animals are equal, but some animals are more equal than others".
- b) "Beasts of England, unite".

(1*10=10)

Q. 4. Answer any 2 questions in about 500 words each:

- a) What is the theme of Animal Farm?
- b) Describe the Battle of Cowshed in your own words.
- c) Write a character sketch of Napoleon.

(2*14=28)

Section-D

Q. 5. Explain any 1 of the passages with reference to the context:

- a) "O what made fatuous sunbeams toil/To break earth's sleep at all?"
- b) "I am the daughter of earth and water/ And the nursling of the sky".

(1*10=10)

Q. 6. Answer any 2 of the following questions in about 500 words each;

- a) Sum up the main idea of the poem "London".
- b) Write a critical summary of the poem "Guru".
- c) Elaborate the theme of the poem "The Tables Turned".

(2*14=28)

Exam Code: 121203

Paper Code: 3130

Programme: Bachelor of Arts (Semester - III)

Course Title: Punjabi (Elective)

Course Code: BARL-3208

Time Allowed: 3 Hours

Max Marks: 70

ਨੋਟ- ਵਿਦਿਆਰਥੀ ਨੇ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰਨੇ ਹਨ। ਹਰ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 14 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ I

1. ਹੇਠਾਂ ਲਿਖੀਆਂ ਕਾਵਿ ਸਤਰਾਂ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰੋ-
 - (ੳ) ਹਿੰਦੂ ਧਿਆਵੈ ਦੇਹੁਰਾ, ਮੁਸਲਮਾਨ ਮਸੀਤ।
ਜੇਗੀ ਧਿਆਵੈ ਪਰਮਪਦ, ਜਹਾਂ ਦੇਹੁਰਾ ਨਾ ਮਸੀਤ।
ਹਿੰਦੂ ਆਖੈ ਰਾਮ ਕੌ, ਮੁਸਲਮਾਨ ਖੁਦਾਇ।
ਜੇਗੀ ਆਖੈ ਅਲਖ ਕੌ, ਤਹਾ ਰਾਮ ਅਛੈ ਨਾ ਖੁਦਾਇ।
 - (ਅ) ਨਾਨਕ ਚਿੰਤਾ ਮਤਿ ਕਰਹੁ ਚਿੰਤਾ ਤਿਸ ਹੀ ਹੋਇ।
ਜਲ ਮਾਹਿ ਜੰਤ ਉਪਾਇਅਨੁ ਤਿਨਾ ਭਿ ਰੇਜੀ ਦੇਹਿ।
ਉਥੈ ਹਟੁ ਨ ਚਲਈ ਨਾ ਕੇ ਕਿਰਸਾ ਕਰੇਇ।
ਸੌਦਾ ਮੂਲ ਨ ਹੋਵਈ ਨਾ ਕੇ ਲਏ ਨਾ ਦੇਇ।
ਜੀਆ ਕਾ ਆਹਾਰ ਜੀਅ ਖਾਣਾ ਇਹੁ ਕਰੇਇ।
ਨਾਨਕ ਚਿੰਤਾ ਮਤੁ ਕਰਹੁ ਚਿੰਤਾ ਤਿਸੁ ਹੀ ਹੋਇ।
2. ਭਗਤ ਰਾਮਾਨੰਦ ਜੀ ਦੀ ਬਾਣੀ ਦਾ ਸਾਰ ਲਿਖੋ।

ਸੈਕਸ਼ਨ II

3. ਮੁਰਕੀਆਂ ਕਹਾਣੀ ਦਾ ਸਾਰ ਲਿਖੋ।
4. ਮੁਰਦੇ ਦੀ ਤਾਕਤ ਕਹਾਣੀ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ।

ਸੈਕਸ਼ਨ III

5. ਸਾਹਿਤ ਆਲੋਚਨਾ ਨਾਲ ਸੰਬੰਧਿਤ ਮੂਲ ਸੰਕਲਪਾਂ ਤੇ ਨੋਟ ਲਿਖੋ-
 - (ੳ) ਅਨੁਕਰਣ (ਅ) ਪ੍ਰਤੀਕ
6. ਸਾਹਿਤ ਆਲੋਚਨਾ ਨਾਲ ਸੰਬੰਧਿਤ ਮੂਲ ਸੰਕਲਪਾਂ ਤੇ ਨੋਟ ਲਿਖੋ-
 - (ੳ) ਕਥਾ ਤੇ ਕਥਾਨਕ (ਅ) ਪਾਤਰ ਉਸਾਰੀ

ਸੈਕਸ਼ਨ IV

7. ਜੰਗਨਾਮਾ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦੇ ਹੋਏ ਇਸ ਦੇ ਤੱਤਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ।
8. ਕਿੱਸੇ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦੇ ਹੋਏ ਇਸ ਤੇ ਨੋਟ ਲਿਖੋ।

For Reappear Candidates (Old Syllabus (Session 2024-25))

Exam Code: 121203

Paper Code: 9313

Programme: Bachelor of Arts (Semester –III)

Course Title: Punjabi (Elective)

Course Code: BARL-3208

ਸਮਾਂ ਤਿੰਨ ਘੰਟੇ

ਕੁਲ ਅੰਕ-80

ਨੋਟ- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 16 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ-A

1. ਹੇਠ ਲਿਖੇ ਕਾਵਿ ਟੋਟਿਆਂ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰੋ।
 - i. ਤੁਮ ਸੁਣੇ ਹਮਾਰੇ ਬੈਨਾ ਮੇਹਿ ਰਾਤ ਦਿਨ ਨਹੀਂ ਚੈਨਾ
ਹੁਣ ਪੀਆ ਬਿਨਾਂ ਪਲਕ ਨਾ ਸਰੀਏ, ਅਬ ਲਗਨ ਲਗੀ ਕਿਆ ਕਰੀਏ।
ਇਹ ਅਗਨ ਬਿਰਹੋਂ ਦੀ ਜਾਰੇ ਕੋਈ ਹਮਾਰੀ ਤਪਤ ਨਿਵਾਰੇ
ਬਿਨ ਦਰਸ਼ਨ ਕੈਸੇ ਠਰੀਏ, ਅਬ ਲਗਨ ਲਗੀ ਕਿਆ ਕਰੀਏ।
 - ii. ਰਾਮ ਬਿਨਾ ਸਭ ਕਾਮ, ਬਿਆਰਥੇ ਜਾਹਿੰਗੇ।
ਜਿਨੀ ਨ ਚੇਤਿਓ ਰਾਮ, ਸੋਈ ਪਛੁਤਾਹਿੰਗੇ।
ਰਾਬਹੁ ਤਾੜੀ ਮਾਰਿ, ਅੰਤ, ਵਹੁ ਝੁਰਿਹਿੰਗੇ।
ਵਜੀਦਾ ਗਲਿ ਮਹਿ ਫਾਸੀ ਡਾਰਿ, ਕਾਲ ਲੈ ਟੁਰਹਿੰਗੇ।
2. ਹੇਠ ਲਿਖੇ ਕਾਵਿ ਟੋਟਿਆਂ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰੋ-
 - i. ਕਲ੍ਹ ਆਂਹਦੀ ਵੇ ਨਾਰਦਾ, ਤੈਨੂੰ ਕੀਹ ਭਲਿਆਈ
ਤੇ ਘਰੋਂ ਜਨਾਨੀ ਟੋਰਨੀ, ਖੁਸ਼ੀ ਨਹੀਉਂ ਕਾਈ।
ਇਕ ਹੱਸ-ਹੱਸ ਕਰੇ ਕੁਸ਼ਾਮਦਾਂ, ਦੂਜਾ ਕਰੇ ਲੜਾਈ।
ਏਸ ਕੁਸ਼ਮਦੋਂ ਕੈਰਵਾਂ ਚਾ ਜਦ ਕੁਹਾਈ।
ਤੇ ਰਾਵਣ ਏਸ ਕੁਸ਼ਾਮਦ, ਲੰਕਾ ਲੁਟਵਾਈ।
 - ii. ਜਿਨ੍ਹਾਂ ਮਾਰਿਆ ਕੋਹਕੇ ਵੀਰ ਮੇਰਾ, ਮੈਂ ਤਾਂ ਖੁਹਾਉਂਗੀ ਉਨ੍ਹਾਂ ਦੀਆਂ ਜੁੰਡੀਆਂ ਨੀ।
ਧਾਕਾਂ ਜਾਣ ਵਲਾਇਤੀ ਦੇਸ ਸਾਰੇ, ਪਾਵਾਂ ਬੱਕਰੇ ਵਾਂਗ ਚਾ ਵੰਡੀਆਂ ਨੀ।

ਚੂੜੇ ਲਹਿਣਗੇ ਬਹੁਤ ਸੁਹਾਗਣਾਂ ਦੇ, ਨੱਥ ਚੌਂਕ ਤੇ ਵਾਲੀਆਂ ਡੰਡੀਆਂ ਨੀ।

ਸ਼ਾਹ ਮੁਹੰਮਦਾ ਪੈਣਗੇ ਵੈਣ ਡੂੰਘੇ, ਜਦੋਂ ਹੋਣ ਪੰਜਾਬਣਾਂ ਰੰਡੀਆਂ ਨੀ।

ਸੈਕਸ਼ਨ - B

3. 'ਕੋਟ ਤੇ ਮਨੁੱਖ' ਕਹਾਣੀ ਦਾ ਵਿਸ਼ਾ-ਵਸਤੂ ਸਪੱਸ਼ਟ ਕਰੋ।
4. 'ਘੋਟਣਾ' ਕਹਾਣੀ ਦਾ ਸਾਰ ਲਿਖੋ।

ਸੈਕਸ਼ਨ -C

5. ਦਿੱਤੇ ਪੈਰ੍ਹੇ ਦੇ ਸ਼ਬਦ ਜੋੜਾਂ ਦੀ ਸੁਧਾਈ ਕਰੋ-

ਲਾਇਬਰੇਰੀ ਨੂੰ ਮਨੁੱਖੀ ਜੀਵਨ ਤੇ ਸਭਿਆਚਾਰ ਦਾ ਇਕ ਜ਼ਰੂਰੀ ਅੰਗ ਮੰਨਿਆ ਜਾਂਦਾ ਹੈ। ਲਾਇਬਰੇਰੀ ਨੂੰ ਵਰਤਮਾਨ ਸਮੇਂ ਗਿਆਨ ਦਾ ਘਰ ਆਖਿਆ ਜਾ ਸਕਦਾ ਹੈ। ਲਾਇਬਰੇਰੀ ਵਿਚ ਕਿਤਾਬਾਂ, ਅਖ਼ਬਾਰਾਂ, ਰਸਾਲਿਆਂ ਦਾ ਸੰਗ੍ਰਹਿ ਹੁੰਦਾ ਹੈ। ਚੰਗੀ ਲਾਇਬਰੇਰੀ ਗਿਆਨ ਤੇ ਵਿਦਵਤਾ ਦਾ ਸੋਮਾ ਹੁੰਦਾ ਹੈ। ਜਿਸ ਤਰ੍ਹਾਂ ਮਨੁੱਖੀ ਪੱਧਰ ਵਿਚ ਮੋਹਦੇ ਨੂੰ ਦਾਲ ਰੋਟੀ ਦੀ ਭੁੱਖ ਹੁੰਦੀ ਹੈ ਇਸ ਤਰ੍ਹਾਂ ਮਨੁੱਖੀ ਦਿਮਾਗ ਦੀ ਭੁੱਖ ਪੁਸਤਕਾਂ ਦੇ ਅਧਿਐਨ ਨਾਲ ਪੂਰੀ ਹੁੰਦੀ ਹੈ। ਕਿਸੇ ਦੇਸ਼ ਵਿਚ ਲਾਇਬਰੇਰੀ ਦਾ ਬਹੁ-ਗਿਣਤੀ ਵਿਚ ਹੋਣਾ ਉਸ ਦੇਸ਼ ਦੇ ਸਭਿਆਚਾਰ ਤੇ ਇਤਿਹਾਸਕ ਵਿਰਸੇ ਦੇ ਅਮੀਰ ਤੇ ਕਿਰਿਆਸ਼ੀਲ ਹੋਣ ਦੀ ਗਵਾਹੀ ਹੈ। ਲਾਇਬਰੇਰੀ ਵਿਦਵਾਨਾਂ ਤੇ ਜਗਿਆਸੂਆਂ ਦਾ ਸੱਚਾ ਸਾਥੀ ਹੈ। ਇਸ ਦੀ ਅਣਹੋਂਦ ਵਿਚ ਵਿਦਿਆਰਥੀਆਂ ਦੀ ਬੁਧੀ ਦਾ ਵਿਕਾਸ ਸੰਭਵ ਨਹੀਂ।

6. ਹੇਠ ਲਿਖੇ ਪੈਰ੍ਹੇ ਤੇ ਵਿਸਰਾਮ ਚਿੰਨ੍ਹ ਦੀ ਵਰਤੋਂ ਕਰੋ-

ਵਣਜਾਰਾ ਬੇਦੀ ਦਾ ਮੱਤ ਹੈ ਰੀਤੀ ਰਿਵਾਜ ਜਾਤੀ ਦੇ ਵਿਸ਼ਵਾਸਾਂ ਸੰਕਲਪਾਂ ਤੇ ਨਿਸ਼ਚਿਆਂ ਵਿਚੋਂ ਸਹਿਜ ਭਾਵ ਸਿੰਮਦੇ ਹਨ ਤੇ ਪੁਰਖੀ ਅਨੁਭਵ ਦੇ ਰੂਪ ਵਿਚ ਸਮੇਂ ਨਾਲ ਅੱਗੇ ਤੁਰਦੇ ਹਨ ਰਸਮ ਰਿਵਾਜ ਇਕ ਪ੍ਰਕਾਰ ਸਾਡੀਆਂ ਭਾਈਚਾਰਕ ਸੱਧਰਾਂ ਅਤੇ ਜਜ਼ਬਿਆਂ ਦੀ ਅਗਵਾਈ ਕਰਦੇ ਹਨ। ਰਸਮ ਰਿਵਾਜ ਨੂੰ ਸਖ਼ਸ਼ੀਅਤ ਦੇ ਵਿਕਾਸ ਆਚਰਨ ਦੀ ਸੁੱਧੀ ਅਤੇ ਸਮੁੱਚੀ ਮਾਨਵ ਰੁਚੀ ਨੂੰ ਪ੍ਰਫੁੱਲਿਤ ਕਰਨ ਵਿਚ ਸਹਾਈ ਮੰਨਦੇ ਹੋਏ ਅਨਾਜ ਨੂੰ ਚੜ੍ਹਾਵੇ ਦਾ ਚਿੰਨ੍ਹ ਅਤੇ ਬ੍ਰਿਛ ਦੀ ਟਾਹਣੀ ਜਾਂ ਹਰੇ ਘਾਹ ਨੂੰ ਚੰਗਾ ਸ਼ਗਨ ਮੰਨ ਕੇ ਪੂਜਿਆ ਜਾਂਦਾ ਰਿਹਾ।

ਸੈਕਸ਼ਨ -D

7. ਪੰਜਾਬੀ ਭਾਸ਼ਾ ਦੇ ਨਿਕਾਸ ਵਿਕਾਸ ਬਾਰੇ ਵਿਚਾਰ ਕਰੋ।
8. ਗੁਰਮੁਖੀ ਲਿਪੀ ਦੇ ਨਿਕਾਸ ਵਿਕਾਸ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਉ।

Paper Code: 3104

Programme	Exam Code	Course Code
Bachelor of Arts	121203	BARL-3212 ✓
Bachelor of Science (Medical)	121303	BSML-3212 ✓
Bachelor of Science (Non-Medical)		BSNL-3212 ✓
Bachelor of Science (Computer Science)		BCSL-3212 ✓
Bachelor of Science (Economics)		BECL-3212
Bachelor of Commerce	121103	BCRL-3212
Bachelor of Business Administration	121703	BBRL-3212

Semester-III

Course Title:- English Language Skills-II
(250)

Time Allowed: 3 Hours**Max Marks: 70**

Note: The candidates will have to attempt five questions in all selecting one from each section and the fifth question from any of the four sections. Each question will carry 14 marks.
(5x14=70)

SECTION - A

- 1. Answer all the seven questions. Each question carries 2 marks.**
(7x2=14)

A. Put the adjectives in the correct position.

- a. A beautiful table (wooden/round).....
- b. An unusual ring (gold).....

B. Put in So, Such or Such a

- c. It was great holiday. We had good time.
- d. Everything is expensive these days. Isn't it?
- e. Why does it always take you long time to get ready?

C. Put the words in the right order

- f. I got up at six this morning. I.....
 - a. (getup / early / usually / so / don't)
- g. Why.....? Can't you drive faster?
(Driving / So / you / slowly / are)

2. Answer all the seven questions. Each question carries 2 marks. (7x2=14)

A. Put in Like or As. Sometimes either word is possible.

- a. We heard a noise like a car.
- b. I wish I had a car yours.
- c. Brian is a student..... most of his friends.

B. Complete the Sentences using even+ comparative.

- d. It was very hot yesterday, but today it's
- e. The church is 700 years old, but the house next to it is

C. Put the words in the right order

- f. I got up at six this morning. I.....
(getup / early / usually / so / don't)

- g. Why.....? Can't you drive faster?
(Driving / So / you / slowly / are)

SECTION B

3. Write an Essay on any one of the following topics.

(14x1=14)

Social Media's Impact on Society and Youth

The Role of Technology in modern education

4. Answer all the seven questions. Each question carries 2 marks.

(7x2=14)

- A. Complete the sentence. Use the word in brackets.

- a. We can turn Nobody is watching it. (off)
- b. Shh! My mother is asleep. I don't want to wake.....
(up)
- c. It's cold today. You should put if you go out. (on)

- B. Put in the correct preposition.

- d. Are you still upset..... what I said to you yesterday.
- e. It was nice you to come and see me when I was ill.
- f. I can't understand people who are cruel an animals.
- g. Tanya doesn't look well. I worried her.

SECTION C

5. Write one word for given phrases (any seven)

(7x2=14)

1. To send; to move from one location to another (v)
2. Most important (adj)
3. To spread through all parts of (v)
4. A plant or animal in which another plant or animal lives (n)
5. A plant or animal that lives on or in another animal or plant (n)
6. Easily hurt (adj)
7. To reproduce (v)
8. To send out liquid in very small drops (v)
9. A chemical that kills insects (n)
10. Too much or too little compared to other things (adj)

6. Fill in the blanks using the words given in box : (any seven)

(7x2=14)

Achievement (n)	Revive (v)	Conquer (v)	Pursue (v)	Pursuit (n)
Conquest (n)	Inherited (v)	Revival (n)	achieve(v)	Inheritance (n)

1. My son wants tohis interest in art.
2. The architect considered the new building his finest
3. This new discovery willearlier interest in genetic medicine.

4. Her sons..... her bright red hair.
5. Researchers have worked for years in theirof a cure for cancer.
6. Although we have notcancer, we have come a long way in treatment.
7. In the future, genetic researchers may success with other major diseases.
8. She received a diamond ring as part of a..... from her grandmother.
9. Discoveries in basic science can lead to theof dangerous diseases.
10. During the war, there was a of interest in home gardens.

SECTION D

7. Write one word for given phrases (any seven)

(7x2=14)

1. Remarkable (adj)
2. Financially successful (adj)
3. babies before they are born (n pl)
4. Related to hearing (adj)
5. New and different (adj)
6. used something effectively (v)
7. to copy (v)
8. To figure out the hidden meaning of something (v)
9. A difference between things that are similar (n)

10. Periods of time for a particular activity (n pl)

8. Fill in the blanks using the words given in box : (any seven) (7x2=14)

catalog	consensus	excessive	harvest	substitute
combat	debt	renewable	tackle	halted

1. With some adjustments to the engine, it is possible to (swap) substitute vegetable oil for gasoline in some vehicles.
2. With land burning throughout the western United States, more firefighters were brought in to (fight) combat the huge wildfires.
3. These days, farmers use highly sophisticated machines to (pick) harvest their crops.
4. Before computers, librarians had to (organize, list) catalog all books by hand.
5. The heat was (too much) excessive. People were warned to stay indoors.
6. There is general (agreement) consensus within the scientific community that global warming exists, but scientists hold different opinions about how to address it.
7. After he graduated from university, he managed to pay off all his (money owed) debt within three years.

Q8. Fill in the blanks using the words given in box : (any seven)

(7x2=14)

catastrophic	emerging	obligation	reliant	sustainable
deforestation	negligible	interrupts	vanished	counter

1. In some tropical countries, complete forests have ____, leaving bare and unproductive land.
2. Experts argue that the present fast economic growth is not ____ because of its dependence on rapidly shrinking resources.
3. The ____ economies of Brazil, Russia, India, and China are providing some much-needed employment opportunities within these nations.
4. ____ is a clear example of a short-term solution to poverty that also leads to environmental destruction.
5. The damage from the 2011 earthquake and tsunami in Japan was ____.
6. People who care very much for the environment believe that humans have can ____ to protect it and to keep it healthy.
7. The city planned to develop a park in the new industrial area, but this was not enough to ____ the loss of farmland.
8. Families who make their living from subsistence farming are ____ on the weather; periods of drought, for example, can be life-threatening.
9. The company claimed that the effects of the oil spill were ____, but the local government argued that the spill caused many people to lose their jobs.
10. Falling leaves provide essential nutrients to the earth. Therefore, cutting down trees ____ this process, thereby requiring farmers to use artificial fertilizers.

8. The city decided to (try to solve) tackle the housing problem by first holding public meetings in order to listen to the residents' ideas for improvement.
9. When a threatened species of bird was discovered in the forest, all tree cutting was (stopped) halted.
10. Wind and solar power are examples of (replaceable) renewable energy sources.

Exam Code : 103303

Paper Code : 9311

Bachelor of Arts (Semester-III)
Course Title: English (Compulsory)
Course Code: BARL-3212

Time Allowed : 3 Hours

Max. Marks : 40

Section-A

Attempt ANY TEN. Each sentence carries 1 mark.

(10 × 1 = 10)

1. **Fill Combine using *who*:**

I met a teacher. She teaches English.

2. **Fill with *who/that/which*:**

This is the book ____ I wanted. Add a correct question tag: You didn't call me yesterday, ____?

3. **Use *whose* in the following sentence:**

I met a girl ____ brother plays cricket.

4. **Fill in the blank:**

The woman ____ lives next door is very kind.

5. **Fill in the blank:**

The boy ____ (injure) in the accident is fine now..

6. **Choose correct form:**

The story was very _____. (amusing / amused)

7. **Fill in:**

I am not as tall ____ you. (as / than)

8. **Rewrite correctly:**She is *most/ more* intelligent than her sister.9. **Correct the word order:**

Always she wakes up early.

10. **Place adverb correctly:**

He finished his homework. (already)

11. **Fill the blank:**

He hasn't arrived _____. (yet/still)

12. **Join using *although*:**

It was late. He kept working.

13. **Use *in case* in the following sentence.**

I saved her number ____ I need help.

14. **Fill in:**

____ I walked home, it started raining. (As / Like)

15. **Make a sentence using *by the time*.**

Section-B

Q2 . Attempt ANY ONE essay (300 words):

(6x1=6)

- a) The Importance of Time Management
- b) The Role of Youth in Nation Building
- c) Advantages and Disadvantages of Online Education

Q3. Attempt ANY FOUR from the following:

(4 marks)

- a) A collection of books

- b) A large collection of trees
- c) A place for the treatment of sick people
- d) A place where bread and cakes are made
- e) A number of sheep

Section-C**Q4. Give words that are similar in meaning:**

(5 marks)

- a) Important
- b) to get away from threat
- c) to question if something is really true
- d) to employ; to give someone a job
- e) to allow someone to enter

Q5.) Fill in the blanks by choosing the appropriate word :

(5 marks)

symbol	Process	Nature	Likely	Flow	settled	Approves of
--------	---------	--------	--------	------	---------	----------------

- a) Language shift is the technical name for the _____ by which a group of people move from one language to a new first language.
- b) In the late 1840's, the _____ of Irish immigrants into the United States became very strong.
- c) There is good news for the government, The latest opinion polls show that 65 percent of the public _____ the way it is running the country.
- d) When Europeans settled in the America and elsewhere, they often oppressed the _____ people they found there.
- e) If public support for the present government continues to fall, it is _____ to lose the election next year.

Section-D**Q6) – Short Questions (Attempt ANY TWO)**

(3x2=6)

1. What is the theme of Belinda's dressing table scene?
2. What is the central idea of the poem? (*To A Skylark*)
3. How does Tennyson present the character of Ulysses?

Q7) – Stanza Explanation (Attempt ANY ONE)

(4x1=4)

*That time of year thou may'st in me behold
 When yellow leaves, or none, or few, do hang
 Upon those boughs which shake against the cold,
 Bare ruined choirs, where late the sweet birds sang.
 In me thou see'st the twilight of such day*

OR

*Hail to thee, blithe spirit!
 Bird thou never wert—
 That from heaven, or near it,
 Pourest thy full heart
 In profuse strains of unpremeditated art.*

Exam Code : 121203

Paper Code : 9310

Bachelor of Arts (Semester-III)
Course Title: English (Compulsory)
Course Code: BARL-3212

Time Allowed : 3 Hours

Max. Marks : 80

Section-A

Q1) Attempt any TEN questions. Each question carries 2 marks

(10X2= 20)

- 1) Put in *at, on or in*.
I've been invited to a wedding _____ 14 February.
- 2) Read the situation and make sentence using just *in time*.
A child ran into the road in front of your car. You saw the child at the last moment. (manage / stop)
- 3) Use *in, at or on*.
Where's the label? _____
- 4) Complete the sentences. Use *in, at or on + the following*:

The Plane	Prison
-----------	--------

 Some people are _____ for crimes that they did not commit.
- 5) Put in *to/at/in/into* where necessary. If no preposition is necessary, leave the space empty.
I'm tired. Let's go _____ home now.
- 6) Write sentences about places you have been to. Use *I've been to / I've never been to + the words in bracket*.
(never) _____
- 7) Write sentences using *got + into / out of / on / off*.
You were walking home. A friend passed you in her car. She saw you, stopped and offered you a lift. She opened the door.
What did you do? _____
- 8) Complete the sentences using *by*.
Carl won the race. He was five metres in front of the other runners.
Carl _____
- 9) Complete the sentences with the correct *preposition*.
There are some differences _____ British and American English.
- 10) Complete the sentences using an *adjective + preposition*. Choose from:

Excited	Nervous
---------	---------

 Are you _____ the exam?
- 11) Complete the second sentence so that it means the same as the first.
There were lots of tourists in the streets. The streets were crowded _____
- 12) Which is correct?
12) Which is correct?
a Can you explain this word to me?
b Can you explain me this word?
- 13) Put in the correct preposition after *care*. If no preposition is necessary, leave the space empty.
Who's going to take care _____ you when you are old?
- 14) Complete the sentence with *look for or look after*. Use the correct form of look (*looks/ looked/looking*).
I _____ for my keys, but I couldn't find them anywhere.
- 15) Complete the sentences using *hear or heard + a preposition (about/of/from)*.
I'm surprised you haven't _____ her. She's quite famous.

Section - B

Q2) Attempt any one essay in about 400 words

(1x10=10)

- a) Does fashion industry needs to change?

OR

- b) Is hunting an immoral act?

Q3) Give a single word for the phrases given below (Any 5)

(5x2=10)

- a) Government of the people, for the people, and by the people
- b) The right of self-government
- c) A man whose wife is dead
- d) To run away with lover in order to get married secretly

- e) Able to read
- f) Fit for food
- g) That which cannot be conquered
- h) Unable to die

Section - C

Q4) Give words that are similar in meaning

(5x2=10)

- a) To become smaller
- b) The process of bringing water to agricultural land
- c) Regions or areas
- d) To use up something completely
- e) Needing many years to develop

Q5) Fill in the blanks by choosing the appropriate word :-

(5x2=10)

Fertile	Collapsed	Disrupt	Roots	Deteriorated	Arid
---------	-----------	---------	-------	--------------	------

- a) Irrigation can change _____ land into protective farmland.
- b) Mayan history shows how the pressure of human populations can _____ the natural ecology of a region and make it unlivable.
- c) Even though the earthquake was not very strong, some older buildings _____ and many others were badly damaged.
- d) The _____ of this plant do not reach deep into the soil. That's why it will not grow in regions with little rainfall.
- e) Weather forecasters are advising motorists not to drive today because conditions on the roads have _____ rapidly in the last two hours.

Section - D

Q6) Attempt any three questions in about 200 words each.

(3x5=15)

- a) Explore the theme of control and power. Who seems to have control at different points in the poem *Porphyria's Lover*.
- b) Explore the symbolism of the "School," "Grain," and "Setting Sun." What might each represent in the poem *Because I Could Not Stop For Death*.
- c) Why does Frost repeat the line "And miles to go before I sleep"? What effect does this repetition have on the poem's ending and its meaning in the poem *Stopping by Woods on A Snowy Evening*?
- d) What does the poem reveal about human expectations after death in the poem *Ah! Are You Digging on my Grave?*
- e) Analyse the meaning of the final line: "The only emperor is the emperor of ice-cream." in the poem *Emperor of Ice-Cream*.

Q7) Explain any one the following with reference to the context in about 250 words

(1x5=5)

"Because I could not stop for Death –
He kindly stopped for me –
The Carriage held but just Ourselves –
And Immortality"

OR

"Mistress, I dug upon your grave
To bury a bone, in case
I should be hungry near this spot
When passing on my daily trot.
I am sorry, but i quite forgot
It was your resting-place."

Exam Code: 121203

Paper Code: 3131

Programme: Bachelor of Arts (Semester-III)

Course Title: Hindi (Elective)

(मध्ययुगीन काव्य, इतिहास, व्याकरण तथा काव्यांग)

Course Code: BARL-3268

समय: 3 घन्टे

कुल अंक : 70

नोट : यह प्रश्नपत्र चार भागों में विभाजित है। प्रश्नपत्र के भाग एक, दो, तीन और चार में दिए गए प्रश्नों में से विद्यार्थियों को एक-एक प्रश्न करना होगा। पांचवां प्रश्न विद्यार्थी किसी भी भाग में से कर सकता है। सभी प्रश्न 14-14 अंकों के हैं।

भाग - क

1. नोट : किन्हीं दो पद्यांशों की सप्रसंग व्याख्या करें।

क. सतगुरु की महिमा अनंत , अनंत किया उपगार।
लोचन अनंत उघाड़िया , अनंत दिखावनहार ॥
आइ न सकों तुझ पै, सकूँ न तुझे बुलाइ ।
जियरा योंही लेहुगे , विरह तपाई तपाई ॥

ख. १. ओंकार सतिनाम करता पुरुख निरभउ निर्वैरु ।
अकाल मूरति अजूनी सैभं गुर प्रसादि ॥

ग. अब रहीम मुसकिल पड़ी, गाड़े दोऊ काम
साँचे से तो जग नहीं , झूठे मिले ना राम
जे गरीब सों हिट करै , धनि रहीम वे लोग
कहा सुदामा बापुरो कृष्ण मिताई जोग

घ. कनक कनक तै सौगुणी , मादकता अधिकाई
उहि खाए बोराइ , इहि पाए ही बोराइ
कहत , नटत , रीझत , खीझत , मिलत, खिलत, लजियात
भरे भोन में करत है , नैनन ही सब बात

2. नोट : किन्हीं दो पद्यांशों की सप्रसंग व्याख्या करें ।

- i) मंने की गति कही न जाइ ॥
 जे को कहै पिछै पछुताइ ॥
 कागदि कलम न लिखणहारु ॥
 मंने का बहि करनि वीचारु ॥
 ऐसा नामु निरंजनु होइ ॥
 जे को मंनि जाणै मनि कोइ
- ii) चरन-कमल बंदौ हरि-राइ।
 जाकी कृपा पंगु गिरि लंगै, अंधे कौ सब कछु दरसाइ॥
 बहिरौ सुनै, गूँग पुनि बोलै, रंक चलै सिर छत्र धराइ।
 सूरदास स्वामी करुनामय, बार-बार बंदौ तिहिं पाइ॥
- iii) राम नाम कलि कामतरु, राम भगति सुरधेनु।
 सकल सुमंगल मूल जग, गुरुपद पंकज रेनु॥
 बिनु सतसंग न हरिकथा, तेहि बिनु मोह न भाग।
 मोह गएँ बिनु रामपद, होइ न दृढ़ अनुराग॥
- iv) साईं ऐसे पुत्र से, बाँझ रहै बरु नारि।
 बिगरी बेटे बाप से, जाय रहै ससुरारि॥
 जाय रहै ससुरारि, नारि के नाम बिकाने।
 कुल के धर्म नशाय, और परिवार नशाने॥
 कह गिरिधर कबिराय मातु झक्खै वहि ठाई।
 असि पुत्रिनि नहिं होय बाँझ रहतिउँ बरु साईं

भाग-ख

3. सूरदास का साहित्यिक परिचय दें।
4. गिरिधर कविराय की कुंडलियों की मूल संवेदना प्रकट करें ।

भाग-ग

5. आदिकाल की परिस्थितियों का परिचय दें ।
6. आदिकाल के नामकरण का परिचय दें ।

भाग-घ

7. रूपक तथा उपमा अलंकार को उदाहरण सहित समझाएँ ।
8. स्वर तथा व्यंजन को उदाहरण सहित स्पष्ट करें ।

Exam Code: 121203

Paper Code: 3112

Programme: Bachelor of Arts (Semester - III)

Course Title: History (History of India (A.D. 1707-1947))

Course Code - BARL-3273

Examination Time: 3 Hours

Max. Marks: 70

Note: Attempt three questions, selecting one question from first three Units in about 1000 words. Attempt both questions from Unit IV. Each question carries 14 marks.

UNIT-I

1. What do you understand by Subsidiary System? Discuss its merits and Demerits.
2. Discuss the social, religious and military causes of the Revolt of 1857 A. D.

UNIT-II

3. What do you understand by Ryotwari Settlement ? How far was it different from permanent settlement of Bengal ?
4. Discuss the development of new educational system in India between 1854 to 1936 A.D.

UNIT-III

5. Discuss the Quit India Movement. What was its impact?
6. What led to the Massacre of April 1919 ? Discuss the consequences.

UNIT IV

(COMPULSORY UNIT / ATTEMPT BOTH QUESTIONS)

7. Answer any seven questions in about 20-25 words. Each question will carry Two Marks.
 - i. Describe the main features of the Act of 1935.
 - ii. What do you know about the provisional elections of 1937 A.D.?
 - iii. Write a note on Nehru Report.

- iv. What was Provisional Diarchy?
 - v. When did Simon Commission visit India?
 - vi. Write a note on Home Rule Movement?
 - vii. Write down the Shortcomings of the Act of 1909.
 - viii. Explain the main provision of the Act of 1861 A. D.
 - ix. What was Montague's August Declaration of 1917.
 - x. What led to the passing of Act of 1909.
8. Locate any Seven places on the map of India and explain their importance in 5 lines.
(Each correct answer with explanation will carry 2 marks)
Delhi, Plassey, Buxar, Jhansi, Gwalior, Surat, Hyderabad, Allahabad, Meerut, Barrackpore.

Hindi Version

Note: लगभग 1000 शब्दों में पहली तीन इकाइयों में से एक प्रश्न का चयन करते हुए तीन प्रश्नों का उत्तर लिखो। इकाई IV से दोनों प्रश्न करें। प्रत्येक प्रश्न 14 अंक का होगा।

इकाई-I

1. सहायक प्रणाली से आप क्या समझते हैं? इसके गुण-दोषों की चर्चा कीजिए।
2. 1857 ई. के विद्रोह के सामाजिक, धार्मिक और सैन्य कारणों की चर्चा कीजिए।

इकाई-II

3. रैयतवाड़ी बंदोबस्त से आप क्या समझते हैं? यह बंगाल की स्थायी बंदोबस्त से किस प्रकार भिन्न थी?
4. 1854 से 1936 ई. के बीच भारत में नई शिक्षा प्रणाली के विकास की चर्चा कीजिए।

इकाई-III

5. भारत छोड़ो आंदोलन की चर्चा कीजिए। इसका क्या प्रभाव पड़ा?
6. अप्रैल 1919 के नरसंहार का कारण क्या था? इसके परिणामों की चर्चा कीजिए।

इकाई IV

(अनिवार्य इकाई / दोनों प्रश्नों के उत्तर दीजिए)

7. किन्हीं सात प्रश्नों के उत्तर 20-25 शब्दों में दीजिए। प्रत्येक प्रश्न दो अंकों का होगा।
 - i. 1935 के अधिनियम की मुख्य विशेषताओं का वर्णन कीजिए।
 - ii. 1937 ई. के अनंतिम चुनावों के बारे में आप क्या जानते हैं?
 - iii. नेहरू रिपोर्ट पर एक टिप्पणी लिखिए।
 - iv. अनंतिम द्वैध शासन क्या था?
 - v. साइमन कमीशन भारत कब आया था?
 - vi. होमरूल आंदोलन पर एक टिप्पणी लिखिए।
 - vii. 1909 के अधिनियम की कमियों को लिखिए।
 - viii. 1861 ई. के अधिनियम के मुख्य प्रावधानों की व्याख्या कीजिए।
 - ix. 1917 का मोंटेग्यू का अगस्त घोषणापत्र क्या था?
 - x. 1909 के अधिनियम के पारित होने के क्या कारण थे?
8. भारत के मानचित्र पर किन्हीं सात स्थानों को चिह्नित कीजिए और उनके महत्व को 5 पंक्तियों में स्पष्ट कीजिए।
 (प्रत्येक सही उत्तर के लिए 2 अंक दिए जाएंगे)
 दिल्ली, प्लासी, बक्सर, झाँसी, ग्वालियर, सूरत, हैदराबाद, इलाहाबाद, बैरकपुर, मेरठ।

Punjabi Version

Note: ਪਹਿਲੇ ਤਿੰਨ ਯੂਨਿਟਾਂ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਦੀ ਚੋਣ ਕਰਦੇ ਹੋਏ ਲਗਭਗ 1000 ਸ਼ਬਦਾਂ ਵਿੱਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ। ਯੂਨਿਟ IV ਤੋਂ ਦੋਵਾਂ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹਨ, ਹਰ ਪ੍ਰਸ਼ਨ 14 ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ।

ਯੂਨਿਟ-I

1. ਸਹਾਇਕ ਪ੍ਰਣਾਲੀ ਤੋਂ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? ਇਸਦੇ ਗੁਣਾਂ ਅਤੇ ਨੁਕਸਾਨਾਂ 'ਤੇ ਚਰਚਾ ਕਰੋ।
2. 1857 ਈ. ਦੇ ਵਿਦਰੋਹ ਦੇ ਸਮਾਜਿਕ, ਧਾਰਮਿਕ ਅਤੇ ਫੌਜੀ ਕਾਰਨਾਂ 'ਤੇ ਚਰਚਾ ਕਰੋ।

ਯੂਨਿਟ-II

3. ਰਯਤਵਾੜੀ ਬੰਦੋਬਸਤ ਤੋਂ ਤੁਸੀਂ ਕੀ ਸਮਝਦੇ ਹੋ? ਇਹ ਬੰਗਾਲ ਦੇ ਸਥਾਈ ਬੰਦੋਬਸਤ ਤੋਂ ਕਿੰਨਾ ਵੱਖਰਾ ਸੀ?
4. 1854 ਤੋਂ 1936 ਈ. ਦੇ ਵਿਚਕਾਰ ਭਾਰਤ ਵਿੱਚ ਨਵੀਂ ਸਿੱਖਿਆ ਪ੍ਰਣਾਲੀ ਦੇ ਵਿਕਾਸ ਬਾਰੇ ਚਰਚਾ ਕਰੋ।

ਯੂਨਿਟ-III

5. ਭਾਰਤ ਛੱਡੋ ਅੰਦੋਲਨ 'ਤੇ ਚਰਚਾ ਕਰੋ। ਇਸਦਾ ਕੀ ਪ੍ਰਭਾਵ ਸੀ?
6. ਅਪ੍ਰੈਲ 1919 ਦੇ ਕਤਲੇਆਮ ਦਾ ਕਾਰਨ ਕੀ ਸੀ? ਨਤੀਜਿਆਂ 'ਤੇ ਚਰਚਾ ਕਰੋ।

ਯੂਨਿਟ IV

(ਕੰਪਲਸਰੀ ਯੂਨਿਟ / ਦੇਵੇਂ ਸਵਾਲਾਂ ਦੀ ਕੋਸ਼ਿਸ਼ ਕਰੋ)

7. ਕੋਈ ਵੀ ਸੱਤ ਸਵਾਲਾਂ ਦੇ ਜਵਾਬ 20-25 ਸ਼ਬਦਾਂ ਵਿੱਚ ਦਿਓ। ਹਰੇਕ ਸਵਾਲ ਦੇ ਦੋ ਅੰਕ ਹੋਣਗੇ।
 - i. 1935 ਦੇ ਐਕਟ ਦੀਆਂ ਮੁੱਖ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਦਾ ਵਰਣਨ ਕਰੋ।
 - ii. ਤੁਸੀਂ 1937 ਈ. ਦੀਆਂ ਆਰਜ਼ੀ ਚੋਣਾਂ ਬਾਰੇ ਕੀ ਜਾਣਦੇ ਹੋ?
 - iii. ਨਹਿਰੂ ਰਿਪੋਰਟ 'ਤੇ ਇੱਕ ਨੋਟ ਲਿਖੋ।
 - iv. ਆਰਜ਼ੀ ਡਾਇਆਰਕੀ ਕੀ ਸੀ?
 - v. ਸਾਈਮਨ ਕਮਿਸ਼ਨ ਨੇ ਭਾਰਤ ਦਾ ਦੌਰਾ ਕਦੋਂ ਕੀਤਾ ਸੀ?
 - vi. ਹੋਮ ਰੂਲ ਅੰਦੋਲਨ 'ਤੇ ਇੱਕ ਨੋਟ ਲਿਖੋ?
 - vii. 1909 ਦੇ ਐਕਟ ਦੀਆਂ ਕਮੀਆਂ ਲਿਖੋ।
 - viii. 1861 ਈ. ਦੇ ਐਕਟ ਦੇ ਮੁੱਖ ਉਪਬੰਧ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।
 - ix. ਮੋਂਟੇਗ ਦਾ 1917 ਦਾ ਅਗਸਤ ਐਲਾਨ ਕੀ ਸੀ।
 - x. 1909 ਦਾ ਐਕਟ ਪਾਸ ਹੋਣ ਦਾ ਕਾਰਨ ਕੀ ਸੀ।
8. ਭਾਰਤ ਦੇ ਨਕਸ਼ੇ 'ਤੇ ਕੋਈ ਵੀ ਸੱਤ ਸਥਾਨ ਲੱਭੋ ਅਤੇ ਉਨ੍ਹਾਂ ਦੀ ਮਹੱਤਤਾ ਨੂੰ 5 ਲਾਈਨਾਂ ਵਿੱਚ ਸਮਝਾਓ (ਹਰੇਕ ਸਹੀ ਉੱਤਰ ਦੇ ਸਪੱਸ਼ਟੀਕਰਨ ਦੇ ਨਾਲ 2 ਅੰਕ ਹੋਣਗੇ)
ਦਿੱਲੀ, ਪਲਾਸੀ, ਬਕਸਰ, ਝਾਂਸੀ, ਗਵਾਲੀਅਰ, ਸੂਰਤ, ਹੈਦਰਾਬਾਦ, ਇਲਾਹਾਬਾਦ ਬੈਰਕਪੁਰ, ਮੇਰਠ।

Note: Attempt three questions, selecting one question from first three Units in about 1000 words. Attempt both questions from Unit IV. Each question will carry 14 marks.

लगभग 1000 शब्दों में पहली तीन इकाइयों में से एक प्रश्न का चयन करते हुए तीन प्रश्नों का उत्तर लिखो। इकाई IV से दोनों प्रश्नों को हल करें। प्रत्येक प्रश्न 14 अंकों का होगा।

ਪਹਿਲੇ ਤਿੰਨ ਯੂਨਿਟਾਂ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਦੀ ਚੋਣ ਕਰਦੇ ਹੋਏ ਲਗਭਗ 1000 ਸ਼ਬਦਾਂ ਵਿੱਚ ਤਿੰਨ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉੱਤਰ ਦਿਓ। ਯੂਨਿਟ IV ਤੋਂ ਦੋਵਾਂ ਪ੍ਰਸ਼ਨ ਲਾਜ਼ਮੀ ਹਨ, ਹਰ ਪ੍ਰਸ਼ਨ 14 ਅੰਕਾਂ ਦਾ ਹੋਵੇਗਾ।

UNIT-I

1. Describe the causes and significance of Battle of Plassey.
2. Discuss the Political and Economic causes of the revolt of 1857 A.D..

UNIT-II

3. Explain permanent settlement of Bengal initiated by Lord Cornwallis? Discuss its merits and demerits.
4. Give a brief account of the life of Raja Ram Mohan Roy and main principles of Brahmo Samaj.

UNIT-III

5. Discuss the causes of National Consciousness in India.
6. What led to the Massacre of April 1919? Discuss the consequences.

UNIT-IV

(COMPULSORY UNIT / ATTEMPT BOTH QUESTIONS)

7. Answer any Seven questions Each question will carry Two Marks.
 - i. State two causes of political consciousness in India.
 - ii. Who is called the father of Nation? What was his real name?
 - iii. When and where Jallianwala bagh incident took place. Who was responsible for this incident?
 - iv. When did Simon Commission visit India?
 - v. What were Gandhiji's principles of life?
 - vi. What was Khilafat Movement?
 - vii. When and where was Indian National Army set up?
 - viii. When was the Constitution of India introduced?
 - ix. Name Four Prominent leaders of Indian National Congress.
 - x. What do you mean by Satyagrah?
 - xi. What was the slogan of Ghadrists?
 - xii. What were the main two features of Gandhiji's Non-Cooperation Movement?
8. Locate any Seven places on the map of India and explain their importance in 5 lines (Each correct answer with explanation will carry 2 marks) Delhi, Plassey, Buxar, Jhansi, Gwalior, Surat, Hyderabad, Allahabad.

यूनिट -I

1. प्लासी के युद्ध के कारणों एवं महत्व का वर्णन करें।
2. 1857 ई. के विद्रोह के राजनीतिक और आर्थिक कारणों की चर्चा करें।

यूनिट-II

3. लॉर्ड कार्नवालिस द्वारा शुरू किए गए बंगाल के स्थायी बंदोबस्त की व्याख्या करें? इसके गुण-दोषों की चर्चा कीजिए।
4. राजा राम मोहन राय के जीवन और ब्रह्म समाज के मुख्य सिद्धांतों का संक्षिप्त विवरण दीजिए।

यूनिट-III

5. भारत में राष्ट्रीय चेतना के कारणों पर चर्चा करें।
6. अप्रैल 1919 के नरसंहार का कारण क्या था? परिणामों पर चर्चा करें।

यूनिट-IV

(अनिवार्य इकाई/दोनों प्रश्न हल करें)

7. किन्हीं सात प्रश्नों के उत्तर दें प्रत्येक प्रश्न के दो अंकों होंगे।
 - i. भारत में राजनीतिक चेतना के दो कारण बताइये।

- ii. ਰਾਸ਼ਟ੍ਰਪਿਤਾ ਕਿਸੇ ਕਹਾ ਜਾਤਾ ਹੈ? ਉਸਕਾ ਅਸਲੀ ਨਾਮ ਕਿਆ ਥਾ?
- iii. ਜਲਿਆਂਵਾਲਾ ਬਾਗ ਕਾਂਡ ਕਬ ਔਰ ਕਹਾਂ ਹੁਆ ਥਾ. ਇਸ ਘਟਨਾ ਕੇ ਲਿਓ ਕੌਨ ਜਿੰਮੇਦਾਰ ਥਾ?
- iv. ਸਾਇਮਨ ਕਮੀਸ਼ਨ ਨੇ ਭਾਰਤ ਕਾ ਦੌਰਾ ਕਬ ਕਿਆ?
- v. ਗਾਂਧੀਜੀ ਕੇ ਜੀਵਨ ਕੇ ਸਿਫ਼ਰਾਂਤ ਕਿਆ ਥੇ?
- vi. ਖਿਲਾਫ਼ਤ ਆਂਦੋਲਨ ਕਿਆ ਥਾ?
- vii. ਆਜ਼ਾਦ ਹਿੰਦ ਫ਼ੌਜ ਕੀ ਸਥਾਪਨਾ ਕਬ ਔਰ ਕਹਾਂ ਕੀ ਗਈ ਥੀ?
- viii. ਭਾਰਤ ਕਾ ਸੰਵਿਧਾਨ ਕਬ ਲਾਗੂ ਕਿਆ ਗਿਆ ਥਾ?
- ix. ਭਾਰਤੀ ਰਾਸ਼ਟ੍ਰੀਯ ਕਾਂਗਰੇਸ ਕੇ ਚਾਰ ਪ੍ਰਮੁੱਖ ਨੇਤਾਓਂ ਕੇ ਨਾਮ ਬਤਾਓ.
- x. ਸਤਿਆਗ੍ਰਹ ਸੇ ਆਪ ਕਿਆ ਸਮਝਤੇ ਹੈਂ?
- xi. ਗਦਰਿਯੋਂ ਕਾ ਨਾਰਾ ਕਿਆ ਥਾ?
- xii. ਗਾਂਧੀਜੀ ਕੇ ਅਸਹਯੋਗ ਆਂਦੋਲਨ ਕੀ ਮੁੱਖ ਦੋ ਵਿਸ਼ੇਸ਼ਤਾਏਂ ਕਿਆ ਥੀਂ?

8. ਭਾਰਤ ਕੇ ਮਾਨਚਿਤ੍ਰ ਪਰ ਕਿਨ੍ਹੀ ਚਾਰ ਸਥਾਨਾਂ ਕਾ ਪਤਾ ਲਗਾਓ ਔਰ ਉਨਕੇ ਮਹੱਤਵ ਕੋ 5 ਪੰਕਤਿਯੋਂ ਮੇਂ ਸਮਝਾਓ (ਸਪੱਸ਼ਟੀਕਰਣ ਕੇ ਸਾਥ ਪ੍ਰਤੀਕ ਸਹੀ ਉਤਰ ਕੇ 2 ਅੰਕ ਹੋਂਗੇ)

ਦਿੱਲੀ, ਪਲਾਸੀ, ਬਕਸਰ, ਝਾਂਸੀ, ਗੁਲਿਯਰ, ਸੂਰਤ, ਹੈਦਰਾਬਾਦ, ਇਲਾਹਾਬਾਦ।

ਯੂਨਿਟ-I

1. ਪਲਾਸੀ ਦੀ ਲੜਾਈ ਦੇ ਕਾਰਨਾਂ ਅਤੇ ਮਹੱਤਤਾ ਦਾ ਵਰਣਨ ਕਰੋ।
2. 1857 ਈ. ਦੇ ਵਿਦਰੋਹ ਦੇ ਸਿਆਸੀ ਅਤੇ ਆਰਥਿਕ ਕਾਰਨਾਂ ਦੀ ਚਰਚਾ ਕਰੋ।

ਯੂਨਿਟ-II

3. ਲਾਰਡ ਕਾਰਨਵਾਲਿਸ ਦੁਆਰਾ ਸ਼ੁਰੂ ਕੀਤੇ ਗਏ ਬੰਗਾਲ ਦੇ ਸਥਾਈ ਬੰਦੋਬਸਤ ਦੀ ਵਿਆਖਿਆ ਕਰੋ? ਇਸ ਦੇ ਗੁਣ ਅਤੇ ਨੁਕਸਾਨ ਬਾਰੇ ਚਰਚਾ ਕਰੋ।
4. ਰਾਜਾ ਰਾਮ ਮੋਹਨ ਰਾਏ ਦੇ ਜੀਵਨ ਅਤੇ ਬ੍ਰਹਮੋ ਸਮਾਜ ਦੇ ਮੁੱਖ ਸਿਧਾਂਤਾਂ ਬਾਰੇ ਸੰਖੇਪ ਜਾਣਕਾਰੀ ਦਿਓ।

ਯੂਨਿਟ-III

5. ਭਾਰਤ ਵਿੱਚ ਰਾਸ਼ਟਰੀ ਚੇਤਨਾ ਦੇ ਕਾਰਨਾਂ ਦੀ ਚਰਚਾ ਕਰੋ..
6. ਅਪ੍ਰੈਲ 1919 ਦਾ ਕਤਲੇਆਮ ਕਿਸ ਕਾਰਨ ਹੋਇਆ? ਨਤੀਜਿਆਂ ਦੀ ਚਰਚਾ ਕਰੋ।

ਯੂਨਿਟ-IV

(ਲਾਜ਼ਮੀ ਯੂਨਿਟ / ਦੋਵੇਂ ਸਵਾਲਾਂ ਦੀ ਕੋਸ਼ਿਸ਼ ਕਰੋ)

7. ਕਿਸੇ ਵੀ ਅੱਠ ਸਵਾਲਾਂ ਦਾ ਜਵਾਬ ਦਿਓ ਹਰ ਸਵਾਲ ਦੇ ਦੋ ਅੰਕ ਹੋਣਗੇ।

- i. ਭਾਰਤ ਵਿੱਚ ਰਾਜਨੀਤਿਕ ਚੇਤਨਾ ਦੇ ਦੋ ਕਾਰਨ ਦੱਸੋ।
- ii. ਰਾਸ਼ਟਰ ਪਿਤਾ ਕਿਸ ਨੂੰ ਕਿਹਾ ਜਾਂਦਾ ਹੈ? ਉਸਦਾ ਅਸਲੀ ਨਾਮ ਕੀ ਸੀ?
- iii. ਜਲਿਆਂਵਾਲਾ ਬਾਗ ਕਾਂਡ ਕਦੋਂ ਅਤੇ ਕਿੱਥੇ ਵਾਪਰਿਆ। ਇਸ ਘਟਨਾ ਲਈ ਕੌਣ ਜ਼ਿੰਮੇਵਾਰ ਸੀ?
- iv. ਸਾਈਮਨ ਕਮਿਸ਼ਨ ਭਾਰਤ ਕਦੋਂ ਆਇਆ ਸੀ?
- v. ਗਾਂਧੀ ਜੀ ਦੇ ਜੀਵਨ ਦੇ ਸਿਧਾਂਤ ਕੀ ਸਨ?
- vi. ਖਿਲਾਫ਼ਤ ਲਹਿਰ ਕੀ ਸੀ?
- vii. ਇੰਡੀਅਨ ਨੈਸ਼ਨਲ ਆਰਮੀ ਦੀ ਸਥਾਪਨਾ ਕਦੋਂ ਅਤੇ ਕਿੱਥੇ ਕੀਤੀ ਗਈ ਸੀ?
- viii. ਭਾਰਤ ਦਾ ਸੰਵਿਧਾਨ ਕਦੋਂ ਪੇਸ਼ ਕੀਤਾ ਗਿਆ ਸੀ?
- ix. ਭਾਰਤੀ ਰਾਸ਼ਟਰੀ ਕਾਂਗਰਸ ਦੇ ਚਾਰ ਪ੍ਰਮੁੱਖ ਨੇਤਾਵਾਂ ਦੇ ਨਾਮ ਦੱਸੋ।
- x. ਸਤਿਆਗ੍ਰਹਿ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ?
- xi. ਗ਼ਦਰੀਆਂ ਦਾ ਨਾਅਰਾ ਕੀ ਸੀ?
- xii. ਗਾਂਧੀ ਜੀ ਦੇ ਅਸਹਿਯੋਗ ਅੰਦੋਲਨ ਦੀਆਂ ਮੁੱਖ ਦੋ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਕੀ ਸਨ?

8. ਭਾਰਤ ਦੇ ਨਕਸ਼ੇ 'ਤੇ ਕੋਈ ਵੀ ਚਾਰ ਸਥਾਨ ਲੱਭੋ ਅਤੇ ਉਨ੍ਹਾਂ ਦੀ ਮਹੱਤਤਾ ਨੂੰ 5 ਲਾਈਨਾਂ ਵਿੱਚ ਸਮਝਾਓ (ਹਰੇਕ ਸਹੀ ਉੱਤਰ ਦੇ 2 ਅੰਕ ਹੋਣਗੇ।)

ਦਿੱਲੀ, ਪਲਾਸੀ, ਬਕਸਰ, ਝਾਂਸੀ, ਗੁਲਾਹੀਅਰ, ਸੂਰਤ, ਹੈਦਰਾਬਾਦ, ਇਲਾਹਾਬਾਦ।

Exam Code: 121203

Paper Code: 3120

Programme: Bachelor of Arts (Semester – III)

Course Title: Human Rights

(Societal Issues of Human Rights in India)

Course Code: BARL-3295 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any Section. Each question carries 14 marks.

Section A

1. Discuss the social problems by focusing on their impact on Human Rights.
2. What do you mean by 'Human Rights'? Explain various kinds of Human Rights.

Section B

3. Make an analysis of Cultural Lag approach for explaining social problems.
4. Elaborate the concept of social change. Discuss the various factors responsible for it.

Section C

5. Define population explosion. Elucidate the link between population explosion and other social problems.
6. Specify the areas in which Indian women are facing problems. What are major reasons behind these problems?

Section D

7. What is 'Legal Aid'? Explain the working of 'The Legal Service Authorities in India'?
8. What are the steps taken up by Indian Government to protect the Human Rights of Women in custodial homes?

Hindi Version

नोट: अभ्यर्थियों को प्रत्येक अनुभाग से कम से कम एक प्रश्न का चयन करते हुए पांच प्रश्नों का उत्तर दे। पांचवें प्रश्न को किसी भी अनुभाग से किया जा सकता है। प्रत्येक प्रश्न 14 अंक का होगा।

अनुभाग ए

- मानवाधिकारों पर उनके प्रभाव पर ध्यान केंद्रित करते हुए सामाजिक समस्याओं पर चर्चा करें।
- 'मानवाधिकार' से आपका क्या तात्पर्य है? मानव अधिकारों के विभिन्न प्रकारों की व्याख्या करें।

अनुभाग बी

- सामाजिक समस्याओं को समझाने के लिए सांस्कृतिक अंतराल दृष्टिकोण का विश्लेषण करें।
- सामाजिक परिवर्तन की अवधारणा को विस्तार से समझाइये। इसके लिए उत्तरदायी विभिन्न कारकों पर चर्चा करें।

अनुभाग सी

- जनसंख्या विस्फोट को परिभाषित करें। जनसंख्या विस्फोट और अन्य सामाजिक समस्याओं के बीच संबंध को स्पष्ट करें।
- उन क्षेत्रों को निर्दिष्ट करें जिनमें भारतीय महिलाओं को समस्याओं का सामना करना पड़ रहा है। इन समस्याओं के पीछे प्रमुख कारण क्या हैं?

अनुभाग डी

- 'कानूनी सहायता' क्या है? 'भारत में कानूनी सेवा प्राधिकरण' की कार्यप्रणाली की व्याख्या करें?
- हिरासत घरों में महिलाओं के मानवाधिकारों की रक्षा के लिए भारत सरकार द्वारा क्या कदम उठाए गए हैं?

Paper Code: 3106

Programme	Exam Code	Course Code
Bachelor of Arts	121203	BARM-3333 ✓
Bachelor of Science (Non-Medical)	121303	BSNM-3333 ✓
Bachelor of Science (Economics)		BECE-3333 ✓
Bachelor of Science (Computer Science)		BCSM-3333 ✓

Semester-III

Course Title: Mathematics (Differential Equations)
(40)

Time Allowed: 3 Hours**Max Marks: 70**

Note:- Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 14 marks.

Section-A

1. a. Solve the differential equation:

$$y \sin 2x \, dx - (1 + y^2 + \cos^2 x) \, dy = 0 \quad (7)$$

- b) Find integrating factor by inspection method and solve

$$x \, dy + y \, dx + 3x^3 y^4 \, dy = 0 \quad (7)$$

2. a. Solve $(x^4 + y^4) \, dx - xy^3 \, dy = 0$ (7)

b. Solve $x^2 \left(\frac{dy}{dx} \right) + xy = \sqrt{1 - x^2} y^2$ (7)

Section-B

3. a. Find orthogonal trajectories of the family of co-axial circles $x^2 + y^2 + 2gx + C = 0$, g being a parameter (7)
- b. Solve $(D^2 - 3D + 2)y = \cos hx$. (7)
4. a. Solve the differential equation: $(D^2 + D + 1)y = \sin 2x$ (7)
- b. Solve $(D^3 + 3D^2 + 2D)y = x^2$ (7)

Section-C

5. a. Solve $y + px = x^4 p^2$ and find the singular solution if it exists. (7)
- b. Find solution of $y'' + 9y = \tan 3x$ by using variation of parameters. (7)
6. a. Solve $(x^2 D^2 + 4x D + 2)y = e^x$. (7)
- b. Solve $(5 + 2x)^2 \frac{d^2 y}{dx^2} - 6(5 + 2x) \frac{dy}{dx} + 8y = 0$ (7)

Section-D

7. Solve in series the differential equation using frobenius method:
 $9x(1-x) \frac{d^2 y}{dx^2} - 12 \frac{dy}{dx} + 4y = 0$. (14)
8. a. Solve $y = x p^2 + p$ (7)
- b. Reduce $x^2 (y - px) = p^2 y$ to Clairaut's form and hence solve. (7)

Exam Code: 121203
(50)

Paper Code: 3121

Programme: Bachelor of Arts
Semester-III

**Course Title: Political Science (Indian
Constitution)**

Course Code: BARL-3406

Time Allowed: 3 Hours

Max Marks: 70

Note:- Candidates are required to attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. All question carry equal 14 marks.

Section-I

1. Write down the historical background and composition of Constituent Assembly.
2. Discuss the salient features of Indian Constitution.

Section-II

3. Elaborate the various types of Directive Principles of State Policy in Indian Constitution.
4. Describe the Fundamental Duties given in Indian Constitution.

Section-III

5. Critically evaluate the powers, function and role of Indian Prime Minister.
6. Discuss in details the composition and powers of Lok Sabha.

Section-IV

7. Explain the powers and role of Chief Minister.
8. Critically Evaluate powers and role of Governor.

Hindi version

नोट : प्रत्येक भाग से कम से कम एक प्रश्न का चयन करते हुए, कुल पांच प्रश्न करें। पांचवां प्रश्न किसी भी भाग में से किया जा सकता है। सभी प्रश्नों के अंक समान हैं।

भाग—क

1. संविधान सभा की ऐतिहासिक पृष्ठभूमि (Historical Background) तथा संविधान सभा की रचना की चर्चा करें।
2. भारतीय संविधान की मुख्य विशेषताओं का वर्णन करें।

भाग—ख

3. भारतीय संविधान में शामिल राज्य नीति के निर्देशक सिद्धांतों की अलग-अलग किस्मों के बारे में लिखें।
4. भारतीय संविधान में दिये गए मौलिक कर्तव्यों का वर्णन करें।

भाग—ग

5. भारत के प्रधानमन्त्री की शक्तियों, कार्यों तथा भूमिका की आलोचनात्मक विश्लेषण करें।
6. लोक सभा की रचना एवं शक्तियों की चर्चा करें।

भाग—घ

7. मुख्य मन्त्री की शक्तियों एवं भूमिका के बारे में बताएं।
8. राज्यपाल की शक्तियों एवं भूमिका का आलोचनात्मक मूल्यांकन करें।

Exam Code: 121203
(20)

Paper Code: 3115

Programme: Bachelor of Arts
Semester-III

**Course Title: Public Administration (Personnel
Administration in India)**

Course Code: BARL-3414

Time Allowed: 3 Hours

Max Marks: 70

Instructions to the candidates:- Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 14 Marks.

Section A

1. Discuss Function & Significance of Personnel Administration.
2. Explain the role of Public Services in Administrative System in the present scenario.

Section B

3. Critically evaluate Promotion System in India.
4. Discuss in detail the Rationality of All India Services.

Section C

5. Critically evaluate the function & role of SPSC.
6. Discuss the organization & function of Department of Personeel.

Section D

7. Critically evaluate powers & Functions of Central Vigilance Commission (C.V.C)
8. Discuss the remedies to combat Corruption in India.

Hindi version

Section A

1. कार्मिक प्रशासन के कार्य और महत्व पर चर्चा करें।
2. वर्तमान परिदृश्य में प्रशासनिक प्रणाली में सार्वजनिक सेवाओं की भूमिका समझाएँ।

Section B

3. भारत में पदोन्नति प्रणाली का आलोचनात्मक मूल्यांकन करें।
4. अखिल भारतीय सेवाओं की तर्कसंगतता पर विस्तार से चर्चा करें।

Section C

5. राज्य लोक सेवा आयोग (SPSC) के कार्यों और भूमिकाओं का आलोचनात्मक मूल्यांकन करें।
6. कार्मिक विभाग के संगठन और कार्यों पर चर्चा करें।

Section D

7. CVC की शक्तियों और कार्यों का आलोचनात्मक मूल्यांकन करें।
8. भारत में भ्रष्टाचार से निपटने के उपायों पर चर्चा करें।

Exam Code: 121203

Paper Code: 3101 - R

PROGRAMME: BACHELOR OF ARTS SEMESTER - III

COURSE TITLE - PUNJABI (COMPULSORY)

COURSE CODE: BARL-3421

Time Allowed: 3 Hrs

Max. Marks: 70

ਨੋਟ- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 14 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ I

1. 'ਘਰ ਦਾ ਪਿਆਰ' ਨਿਬੰਧ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ।
2. 'ਪੁਰਾਣਾ ਪੰਜਾਬ' ਨਿਬੰਧ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ।

ਸੈਕਸ਼ਨ II

3. 'ਸੁਹਾਗ' ਇਕਾਂਗੀ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ।
4. 'ਬੰਬ ਕੇਸ' ਇਕਾਂਗੀ ਦੇ ਵਿਸ਼ਾ ਵਸਤੂ ਉੱਪਰ ਨੋਟ ਲਿਖੋ।

ਸੈਕਸ਼ਨ III

5. ਹੇਠ ਲਿਖੇ ਪੈਰ੍ਹੇ ਦੀ ਸੰਖੇਪ ਰਚਨਾ ਕਰਕੇ ਢੁਕਵਾਂ ਸਿਰਲੇਖ ਲਿਖੋ।

ਕਿੰਨੀ ਅਨੋਖੀ ਨਿਆਮਤ ਹਨ ਪੁਸਤਕਾਂ। ਜਦੋਂ ਦੁੱਖਾਂ ਮੁਸੀਬਤਾਂ ਦੇ ਕਾਲੇ ਬੱਦਲ ਸਾਡੇ ਜੀਵਨ ਨੂੰ ਹਨੇਰੀ ਬੁੱਕਲ ਵਿੱਚ ਲਪੇਟ ਲੈਂਦੇ ਹਨ, ਜਦੋਂ ਸੰਗੀ-ਸਾਥੀ ਤੇ ਮਿੱਤਰ ਸਬੰਧੀ ਸਾਥ ਛੱਡ ਜਾਂਦੇ ਹਨ ਤਾਂ ਇਹ ਪੁਸਤਕਾਂ ਆਪਣੇ ਮਿੱਠੇ ਤੇ ਸਿਆਣੇ ਬੋਲਾਂ ਨਾਲ ਸਾਡਾ ਹੌਸਲਾ ਵਧਾਉਂਦੀਆਂ ਹਨ, ਸਾਨੂੰ ਢਾਰਸ

ਬੰਨ੍ਹਾਉਂਦੀਆਂ ਹਨ ਅਤੇ ਗਿਆਨ ਵਿੱਚ ਵਾਧਾ ਕਰਦੀਆਂ ਹਨ। ਇਹ ਸਾਨੂੰ ਦ੍ਰਿੜਤਾ ਨਾਲ ਜੀਣ ਦੀ ਜਾਚ ਦੱਸਦੀਆਂ ਹਨ। ਮਨੁੱਖਾਂ ਦੀ ਹਜ਼ਾਰਾਂ ਵਰ੍ਹਿਆਂ ਦੀ ਸਿਆਣਪ ਤੇ ਤਜਰਬਿਆਂ ਦਾ ਨਿਚੋੜ ਇਨ੍ਹਾਂ ਵਿੱਚ ਬੰਦ ਹੁੰਦਾ ਹੈ। ਇਨ੍ਹਾਂ ਦੇ ਬੂਹੇ ਹਰ ਵੱਡੇ ਛੋਟੇ, ਉਚੇ-ਨੀਵੇਂ, ਅਮੀਰ-ਗ਼ਰੀਬ ਲਈ ਖੁੱਲ੍ਹੇ ਹਨ। ਇਹ ਸਾਨੂੰ ਇੱਕ ਅਜਿਹੀ ਦੌਲਤ ਨਾਲ ਮਾਲਾ-ਮਾਲ ਕਰਦੀਆਂ ਹਨ। ਜਿਸ ਨੂੰ ਚੋਰ ਨਹੀਂ ਚੁਰਾ ਸਕਦਾ, ਪਾਣੀ ਰੋੜ੍ਹ ਨਹੀਂ ਸਕਦਾ, ਅੱਗ ਸਾੜ ਨਹੀਂ ਸਕਦੀ। ਖੁਸ਼ਕਿਸਮਤ ਹਨ ਉਹ ਇਨਸਾਨ ਜਿਨ੍ਹਾਂ ਨੂੰ ਉੱਤਮ ਪੁਸਤਕਾਂ ਪੜ੍ਹਨ ਤੇ ਮਾਣਨ ਦਾ ਅਮੁੱਕ ਸ਼ੌਕ ਹੈ।

6. ਦਿੱਤੇ ਪੈਰੇ ਵਿੱਚੋਂ ਅਸੁੱਧ ਸ਼ਬਦ ਜੋੜਾਂ ਨੂੰ ਸੁੱਧ ਕਰੋ।

ਚੰਗਾ ਵਿਦਿਆਰਥੀ ਉਹ ਹੈ ਜਿਹੜਾ ਚੰਗੀ ਤਰਾ ਵਿੱਦਿਆ ਪ੍ਰਾਪਤ ਕਰੇ ਇਸ ਤੋਂ ਇਲਾਵਾ ਸਮੇਂ ਦੀ ਪਬੰਦੀ ਵੀ ਚੰਗੇ ਵਿਦਿਆਰਥੀ ਦੇ ਗੁਣਾਂ ਵਿੱਚ ਸ਼ਾਮਿਲ ਹੈ। ਵਿਦਿਆਰਥੀ ਨੂੰ ਸਮੇਂ ਸਿਰ ਸਕੂਲ ਆਉਣਾ ਚਾਹੀਦਾ ਹੈ ਅਤੇ ਸਮੇਂ ਅਨੁਸਾਰ ਹੀ ਸਾਰੇ ਕੰਮ ਕਰਨੇ ਚਾਹੀਦੇ ਹਨ। ਸਕੂਲ ਦੇ ਨਿਯਮਾਂ ਦੀ ਪਾਲਣਾ ਕਰਨੀ, ਅਧਿਆਪਕ ਦਾ ਕਹਿਣਾ ਮੰਨਣਾ, ਸਕੂਲ ਦੀਆਂ ਵਸਤਾਂ ਦੀ ਸੰਭਾਲ ਕਰਨੀ, ਅਧਿਆਪਕ ਦੀ ਗੈਰ-ਹਾਜ਼ਰੀ ਵਿੱਚ ਛਰਾਰਤ ਨਾ ਕਰਨੀ, ਅਧਿਆਪਕ ਦੁਆਰਾ ਪੜ੍ਹਾਇਆ ਜਾ ਰਿਹਾ ਪਾਠ ਧਿਆਨ ਨਾਲ ਸੁਣਨਾ ਤੇ ਘਰ ਆ ਕੇ ਸਕੂਲੋਂ ਮਿਲਿਆ ਕੰਮ ਰੋਜ਼ ਕਰਨਾ ਚਾਹੀਦਾ ਹੈ। ਚੰਗੇ ਵਿਦਿਆਰਥੀ ਨੂੰ ਪੜ੍ਹਨ ਦੇ ਨਾਲ- ਨਾਲ ਖੇਡਾਂ ਵਿੱਚ ਵੀ ਵੱਧ ਚੜ੍ਹ ਕੇ ਹਿੱਸਾ ਲੈਣਾ ਚਾਹੀਦਾ ਹੈ। ਸਮੇਂ ਦੀ ਕਦਰ ਕਰਨਾ, ਹਰੇਕ ਕੰਮ ਬਿਊਂਤ ਅਨੁਸਾਰ ਕਰਨਾ, ਆਪਣੇ ਕੰਮਾਂ ਦੀ ਪਹਿਲ- ਦੂਜ ਨਿਸ਼ਚਿਤ ਕਰਨਾ ਚੰਗੇ ਵਿਦਿਆਰਥੀ ਦੇ ਗੁਣ ਹਨ। ਉਸਦਾ ਅਚਾਰ ਵਿਹਾਰ ਅਜਿਹਾ ਹੋਣਾ ਚਾਹੀਦਾ ਹੈ ਕਿ ਦੂਜੇ ਸਹਪਾਠੀ, ਗਲੀ ਗੁਆਂਡ ਦੇ ਬੱਚੇ ਉਸ ਤੋਂ ਪ੍ਰੇਰਨਾ ਲੈਣ।

ਸੈਕਸ਼ਨ IV

7. ਸ਼ਬਦ ਕੀ ਹੁੰਦਾ ਹੈ ਤੇ ਇਹ ਕਿੰਨੀ ਪ੍ਰਕਾਰ ਦੇ ਹੁੰਦੇ ਹਨ?

8. ਭਾਵੇਂਸ਼ ਕੀ ਹੁੰਦਾ ਹੈ ਤੇ ਇਹ ਕਿੰਨੀ ਪ੍ਰਕਾਰ ਦੇ ਹੁੰਦੇ ਹਨ? ਉਦਾਹਰਨਾਂ ਦੇ ਕੇ ਦੱਸੋ।

(For Reappear Candidates (Old Syllabus 2024-25))

Programme	Exam Code	Paper Code: 9307 Course Code
Bachelor of Arts (Semester-III)	121203	BARL-3421
Bachelor of Business Administration (Semester-III)	121703	BBRL-3421

Course Title- Punjabi (Compulsory)

ਸਮਾਂ ਤਿੰਨ ਘੰਟੇ

ਕੁਲ ਅੰਕ-80

Note: ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਕੁਲ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰੇਕ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 16 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ-I

1. ਤੇਜਾ ਸਿੰਘ ਦੁਆਰਾ ਰਚਿਤ ਘਰ ਦਾ ਪਿਆਰ ਨਿਬੰਧ ਦਾ ਸਾਰ ਲਿਖੋ ?
2. ਇੰਗਲੈਂਡ ਦਾ ਸੋਗੀ ਸੋਮਵਾਰ ਨਿਬੰਧ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ ?

ਸੈਕਸ਼ਨ-II

3. ਜਤਿੰਦਰ ਬਰਾੜ ਦੁਆਰਾ ਰਚਿਤ ਇਕਾਂਗੀ 'ਫਾਈਲ ਚਲਦੀ ਰਹੀ' ਦਾ ਸਾਰ ਲਿਖੋ ?
4. ਗੁਮਸੁਦਾ ਇਕਾਂਗੀ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ ?

ਸੈਕਸ਼ਨ-III

5. ਹੇਠ ਲਿਖੇ ਪੈਰ੍ਹੇ ਦੀ ਸੰਖੇਪ ਰਚਨਾ ਕਰੋ-

ਭਾਈ ਵੀਰ ਸਿੰਘ ਦੀ ਕਵਿਤਾ ਨੇ ਪਾਠਕਾਂ ਦਾ ਇੰਨਾ ਧਿਆਨ ਖਿੱਚਿਆ ਹੈ ਕਿ ਉਨ੍ਹਾਂ ਦੀ ਵਾਰਤਕ ਨਾਲ ਪੂਰਾ ਇਨਸਾਫ਼ ਨਹੀਂ ਕੀਤਾ ਜਾ ਸਕਿਆ। ਹਾਲਾਂਕਿ ਜਿੰਨੇ ਫੈਲਾਓ ਵਿੱਚ ਇਹ ਵਾਰਤਕ ਹੈ, ਜਿੰਨੀ ਇਹ ਠੰਢੇ ਪ੍ਰਭਾਵ ਵਿੱਚ ਗੂੰਠੀ ਹੋਈ ਹੈ, ਜਿੰਨੀ ਇਸ ਵਿੱਚ ਬੋਲੀ ਦੀ ਅਮੀਰੀ ਤੇ ਸੱਜਰੇ, ਨਿਖਾਰੇ, ਢੁੱਕਵੇਂ ਅਲੰਕਾਰਾਂ ਦਾ ਜੜਾਓ ਹੈ, ਜਿੰਨੇ ਸਹਿਜ ਸੁਭਾਵੇ ਤਰੀਕੇ ਨਾਲ ਰਹੱਸਵਾਦੀ ਫਲਸਫੇ ਦੇ ਪਰਦੇ ਦੀਆਂ ਸਾਰੀਆਂ ਕੰਨੀਆਂ ਦਲੀਲ ਤੇ ਜਜ਼ਬੇ ਦੀ ਰਲਵੀਂ ਸਹਾਇਤਾ ਨਾਲ ਖੋਲ੍ਹ- ਖੋਲ੍ਹ ਇਹ ਵਾਰਤਕ ਸਾਨੂੰ ਚਕਿਤ ਕਰਦੀ ਹੈ, ਜਿਵੇਂ ਇਹ ਦਿੱਸਦੀ ਕੁਦਰਤ ਦੇ ਅਣ-ਦਿੱਸਦੇ ਰੂਹ ਦੀ ਦੇ ਦੇਸ਼ ਦੇ ਹਰ ਤਜਰਬੇ ਨੂੰ ਬੜੀ ਬਰੀਕੀ, ਵਿਸਥਾਰ ਤੇ ਸੂਝ ਨਾਲ ਪੇਸ਼ ਕਰਦੀ ਹੈ ਤੇ ਸਾਨੂੰ ਉਨ੍ਹਾਂ ਵਿੱਚ ਡੇਬੇ ਦੁਆਂਦੀ ਹੈ, ਜਿਵੇਂ ਇਹ ਸਾਡੇ ਅੰਦਰਲੇ ਕੋਝਾਂ, ਵਹਿਮਾਂ ਸੰਕਿਆਂ, ਆਸਾਂ, ਦਿਲਗੀਰੀਆਂ, ਪ੍ਰੀਤਾਂ, ਸੰਜੋਗਾਂ ਦੇ ਨਕਸ਼ੇ ਖਿੱਚ-ਖਿੱਚ ਉਹਨਾਂ ਨੂੰ ਮਾਨੇ ਰੂਪਮਾਨ ਕਰ ਦਿੰਦੀ ਹੈ ਪਰ ਨਾਲ ਹੀ ਹਰ ਹਾਲਤ ਵਿੱਚ ਸਾਨੂੰ ਆਸ ਨਾਲ ਬੱਧਾ ਰੱਖਦੀ ਹੈ ਤੇ ਚੜ੍ਹਦੀ ਕਲਾ ਦਾ ਸਹਾਰਾ ਦਿੰਦੀ ਹੈ। ਉਹ ਵਚਿੱਤਰ ਰਚਨਾ ਜ਼ਰੂਰ ਸਾਡਾ ਵਧੀਕ ਧਿਆਨ ਮੰਗਦੀ ਹੈ।

6. ਹੇਠ ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਤੇ ਲੇਖ ਰਚਨਾ ਕਰੋ-

(ੳ) ਇੰਟਰਨੈਟ

(ਅ) ਪੰਜਾਬ ਦੇ ਮੇਲੇ ਤੇ ਤਿਉਹਾਰ

(ੲ) ਆਧੁਨਿਕ ਵਿਦਿਆ ਪ੍ਰਣਾਲੀ

ਸੈਕਸ਼ਨ-IV

7. ਵਾਕ ਦੀ ਪਰਿਭਾਸ਼ਾ ਇਸਦੇ ਵਰਗੀਕਰਨ ਤੇ ਨੋਟ ਲਿਖੋ ?
8. ਭਾਵੇਂਸ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦਿਆਂ ਇਸਦੇ ਵਰਗੀਕਰਨ ਦੇ ਨੋਟ ਲਿਖੋ ?

(For Reappear Candidates (Old Syllabus 2024-25))

Paper Code: 9307-R

Programme	Exam Code	Course Code
Bachelor of Arts (Semester-III)	121203	BARL-3421

Course Title- Punjabi (Compulsory)

ਸਮਾਂ ਤਿੰਨ ਘੰਟੇ

ਕੁਲ ਅੰਕ-80

Note: ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਕੁਲ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰੇਕ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾਸਕਦਾ ਹੈ I ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 16 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ-I

1. ਗੁਰਬਖਸ਼ ਸਿੰਘ ਪ੍ਰੀਤਲੜੀ ਦੁਆਰਾ ਰਚਿਤ 'ਉਮਰਲੰਮੀ ਹੋ ਸਕਦੀ' ਨਿਬੰਧ ਦਾ ਸਾਰ ਲਿਖੋ।
2. ਬਲਰਾਜ ਸਾਹਨੀ ਦੁਆਰਾ ਰਚਿਤ 'ਅੱਥਰੂ' ਨਿਬੰਧ ਦਾ ਸਾਰ ਲਿਖੋ I

ਸੈਕਸ਼ਨ -II

3. ਅਰਮਾਨ ਇਕਾਂਗੀ ਦਾ ਸਾਰ ਲਿਖੋ I
4. ਸਮਾਂ ਮੰਗ ਕਰਦਾ ਹੈ ਇਕਾਂਗੀ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ I

ਸੈਕਸ਼ਨ-III

5. ਹੇਠ ਲਿਖੇ ਪੈਰ੍ਹੇ ਸੰਖੇਪ ਰਚਨਾ ਕਰੋ-

ਹੱਸਣਾ-ਖੇਡਣਾ, ਉਛਲਣਾ-ਕੁੱਦਣਾ ਕਿਸ ਨੂੰ ਚੰਗਾ ਨਹੀਂ ਲੱਗਦਾ? ਵਿਦਿਆਰਥੀ ਜੀਵਨ ਦਾ ਸਮਾਂ ਜਿੱਥੇ ਘਰੇਲੂ ਚਿੰਤਾਵਾਂ ਤੋਂ ਰਹਿਤ ਹੁੰਦਾ ਹੈ, ਉੱਥੇ ਇਸ ਵਿੱਚ ਕੁਝ ਕਰਤੱਵ ਵੀ ਹੁੰਦੇ ਹਨ। ਜਿਸ ਤਰ੍ਹਾਂ ਇੱਕ ਮਕਾਨ ਨੂੰ ਬਣਾਉਂਦੇ ਸਮੇਂ ਉਸਦੀ ਨੀਂਹ ਨੂੰ ਪੱਕਾ ਕਰਨਾ ਪੈਂਦਾ ਹੈ, ਨਹੀਂ ਤਾਂ ਉਸ ਦਾ ਕਿਸੇ ਸਮੇਂ ਵੀ ਢਹਿ ਜਾਣ ਦਾ ਡਰ ਲੱਗਾ ਰਹਿੰਦਾ ਹੈ, ਬਿਲਕੁਲ ਇਸੇ ਤਰ੍ਹਾਂ ਮਨੁੱਖੀ ਜੀਵਨ ਨੂੰ ਦ੍ਰਿੜ, ਮਿਹਨਤੀ ਅਤੇ ਉਚੇਰਾ ਬਣਾਉਣ ਲਈ ਵਿਦਿਆਰਥੀ ਜੀਵਨ ਰੂਪੀ ਨੀਂਹ ਨੂੰ ਪੱਕਾ ਅਤੇ ਮਜ਼ਬੂਤ ਕਰਨ ਦੀ ਬੜੀ ਲੋੜ ਹੁੰਦੀ ਹੈ।

6. ਹੇਠ ਲਿਖੇ ਵਿਸ਼ਿਆਂ ਵਿੱਚੋਂ ਕਿਸੇ ਇੱਕ ਤੇ ਲੇਖ ਰਚਨਾ ਕਰੋ-

(ੳ) ਫੈਸ਼ਨ

(ਅ) ਕੰਪਿਊਟਰ ਦੀ ਮਹੱਤਤਾ

(ੲ) ਸਵੈ ਅਨੁਸ਼ਾਸਨ

ਸੈਕਸ਼ਨ-IV

7. ਵਾਕ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦਿਆਂ ਇਸਦੇ ਵਰਗੀਕਰਨ ਤੇ ਨੋਟ ਲਿਖੋ I
8. ਸ਼ਬਦ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦਿਆਂ ਇਸਦੇ ਵਰਗੀਕਰਨ ਤੇ ਨੋਟ ਲਿਖੋ I

Paper Code: 3101

Programme	Exam Code	Course Code
Bachelor of Arts	121203	BARL-3421 ✓
Bachelor of Science (Medical)	121303	BSML-3421 ✓
Bachelor of Science (Non-Medical)		BSNL-3421 ✓
Bachelor of Science (Computer Science)		BCSL-3421 ✓
Bachelor of Science (Economics)		BECL-3421
Bachelor of Commerce	121103	BCRL-3421
Bachelor of Business Administration	121703	BBRL-3421

Semester-III

Course Title: Punjabi (Compulsory)
(250)

Time Allowed: 3 Hours**Max Marks: 70**

ਨੋਟ- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 14 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ-।

1. 'ਉਮਰ ਲੰਮੀ ਹੋ ਸਕਦੀ' ਨਿਬੰਧ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ?
2. "ਅਥਰੂ" ਨਿਬੰਧ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ।

ਸੈਕਸ਼ਨ-II

3. 'ਜ਼ਫਰਨਾਮਾ' ਇਕਾਂਗੀ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਲਿਖੋ।
4. 'ਕੱਚ ਦਾ ਗਜਰਾ' ਇਕਾਂਗੀ ਦੇ ਵਿਸ਼ਾ ਵਸਤੂ ਉੱਪਰ ਨੋਟ ਲਿਖੋ।

ਸੈਕਸ਼ਨ-III

5. ਹੇਠ ਲਿਖੇ ਪੈਰ੍ਹੇ ਦੀ ਸੰਖੇਪ ਰਚਨਾ ਕਰਕੇ ਢੁਕਵਾਂ ਸਿਰਲੇਖ ਲਿਖੋ।
ਪੰਜਾਬੀ ਸਾਹਿਤ ਦਾ ਵਿਕਾਸ ਵੀ ਸਮੇਂ ਦੀ ਤੌਰ ਦੇ ਨਾਲ-ਨਾਲ ਹੋਇਆ ਹੈ ਅਤੇ ਦੇਸ਼ ਦੀਆਂ ਹੋਰ ਬੋਲੀਆਂ ਦੇ ਸਾਹਿਤਾਂ ਵਾਂਗ ਇਸ ਉੱਤੇ ਵੀ ਅੰਗਰੇਜ਼ੀ ਰਾਜ ਦੇ ਸਮੇਂ ਨੇ ਚੋਖਾ ਪ੍ਰਭਾਵ ਪਾਇਆ ਹੈ। ਭਾਈ ਵੀਰ ਸਿੰਘ, ਜੋਸ਼ੂਆ, ਚਾਤ੍ਰਕ, ਡਾਕਟਰ ਮੋਹਨ ਸਿੰਘ ਤੇ ਗੁਰਬਖਸ਼ ਸਿੰਘ ਆਦਿ ਸਾਹਿਤਕਾਰਾਂ ਨੇ ਪੰਜਾਬੀ ਨੂੰ ਚੋਖਾ ਉਚਿਆਇਆ ਹੈ। ਸੁਤੰਤਰਤਾ ਨੇ ਇਸ ਪਾਸੇ ਅੱਡ-ਅੱਡ ਸਾਹਿਤਕ ਅੰਗਾਂ ਲਈ ਵੱਖਰੇ ਪਿੜ ਹੋਰ ਵੀ ਮੋਕਲੇ ਕਰ ਦਿੱਤੇ ਹਨ। ਭਾਵੇਂ ਗ਼ਲਤ ਕੀਮਤਾਂ ਦੂਰ ਹੋ ਗਈਆਂ ਹਨ ਤੇ ਸਾਡੇ ਸਾਹਿਤ ਦੀ ਰੂਪ-ਰੇਖਾ ਨਿੱਖਰ ਰਹੀ ਹੈ ਪਰ

ਡਰ ਹੈ ਕਿ ਪਰੰਪਰਾ-ਵਾਦੀ ਪ੍ਰਭਾਵ ਅਤੇ ਹੋਰ ਕਾਰਨ ਇਸ ਉੱਗਦੇ ਸੂਰਜ ਨੂੰ ਰਾਹੂ-ਕੇਤੂ ਬਣ ਕੇ ਗਰੱਸ ਨਾ ਲੈਣ।

6. ਦਿੱਤੇ ਪੈਰ੍ਹੇ ਵਿੱਚੋਂ ਅਸ਼ੁੱਧ ਸ਼ਬਦ ਜੋੜਾਂ ਨੂੰ ਸ਼ੁੱਧ ਕਰੋ।

ਗੁਰੂ ਨਾਨਕ ਦੇਵ ਜੀ ਨੇ ਆਪਣੇ ਜੀਵਨ ਵਿੱਚ ਚਾਰ ਵੱਡੀਆਂ ਜਾਤਰਾਵਾਂ ਕੀਤੀਆਂ ਜਿੰਨਾਂ ਨੂੰ ਚਾਰ ਉਦਾਸੀਆਂ ਵੀ ਕਿਹਾ ਜਾਂਦਾ ਹੈ। ਗੁਰੂ ਜੀ ਸਾਰੇ ਮਨੁੱਖਾਂ ਨੂੰ ਇੱਕ ਰੱਬ ਦੇ ਪੁੱਤਰ ਭਰਾ ਸਮਝਦੇ ਸਨ, ਇਸ ਕਰਕੇ ਉਹ ਆਪਣੇ ਨਾਲ ਇੱਕ ਮੁਸਲਮਾਨ ਰਬਾਬੀ ਭਾਈ ਮਰਦਾਨਾ ਤੇ ਇੱਕ ਹਿੰਦੂ ਭਾਈ ਬਾਲਾ ਦੇ ਸਾਥੀ ਲੈ ਕੇ ਲੋਕਾਂ ਨੂੰ ਪ੍ਰੇਮ ਦਾ ਸੰਦੇਛਦੇਣ ਲਈ ਤੁਰ ਪਏ। ਗੁਰੂ ਜੀ ਉਸ ਸਮੇਂ ਦੇ ਲਗਭਗ ਸਾਰੇ ਮਜ਼ਹਬਾਂ ਦੇ ਆਗੂਆਂ ਨੂੰ ਮਿਲੇ ਅਤੇ ਧਰਮ ਅਸਥਾਨਾਂ ਦੀ ਜਾਤਰਾ ਕੀਤੀ ਅਤੇ ਉਹਨਾਂ ਨਾਲ ਖਿਆਲਾਂ ਦਾ ਵਟਾਂਦਰਾ ਕੀਤਾ। ਉਹਨਾਂ ਦੇ ਵਿਚਾਰ ਸੁਣੇ ਅਤੇ ਆਪਣੇ ਜੀਵਨ ਦੇ ਸਿਦਾਂਤਾਂ ਦਾ ਸੰਦੇਸ਼ ਉਨ੍ਹਾਂ ਨੂੰ ਦੇ ਕੇ ਉਹਨਾਂ ਨੂੰ ਸੱਚ ਦੇ ਰਸਤੇ ਤੋਰਿਆ। ਜਨਮ ਸਾਖੀਆਂ ਤੋਂ ਪਤਾ ਲੱਗਦਾ ਹੈ ਕਿ ਆਪ ਪੂਰਬ ਵੱਲ ਆਸਾਮ ਤੱਕ ਲੈਹੰਦੇ ਵੱਲ ਬਗਦਾਦ ਤੇ ਮਕੇ ਮਦੀਨੇ ਤੱਕ ਗਏ। ਉੱਤਰ ਵੱਲ ਹਿਮਾਲਾ ਤੱਕ ਤੇ ਦੱਖਣ ਵੱਲ ਲੰਕਾ ਤੱਕ ਗਏ। ਭਾਰਤ ਵਿੱਚ ਉਸ ਸਮੇਂ ਦੇ ਆਪ ਸਭ ਤੋਂ ਵੱਡੇ ਜਾਤਰੂ ਗਿਣੇ ਜਾਂਦੇ ਹਨ।

ਸੈਕਸ਼ਨ-IV

7. ਉਪਵਾਕ ਅਤੇ ਵਾਕ ਦਾ ਅੰਤਰ ਦੱਸਦਿਆਂ ਵਾਕ ਦੀਆਂ ਵੱਖ ਵੱਖ ਵੰਨਗੀਆਂ ਦਾ ਉਲੇਖ ਕਰੋ।
8. ਸ਼ਬਦ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦਿਆਂ ਉਸਦੀਆਂ ਵੱਖ ਵੱਖ ਵੰਨਗੀਆਂ ਨੂੰ ਉਦਾਹਰਨਾਂ ਨਾਲ ਸਪਸ਼ਟ ਕਰੋ।

Exam Code: 121203

Paper Code: 3103 - R

Programme: Bachelor of Arts Semester - III

Course Title: Punjab History and Culture

Course Code: BARL-3431

Examination Time: 3 Hours

Max. Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 14 marks.

Section A

1. What do you know about Society during Turko-Afghan rule?
2. What do you know about social and cultural conditions of the people in Punjab under the great Mughals?

Section B

3. Explain the origin or causes of the birth of the Bhakti Movement.
4. Describe the features of suffism.

Section C

5. Describe the Teachings of Guru Nanak Dev Ji.
6. What do you know about the concept of Langar and Sangat introduction by Guru Nanak?

Section D

7. Discuss the contribution of Guru Angad in the development of Sikhism.
8. Briefly describe the compilation of the Adi Granth.

Paper Code: 3103

Programme	Exam Code	Course Code
Bachelor of Arts	121203	BARL-3431 ✓
Bachelor of Science (Medical)	121303	BSML-3431 ✓
Bachelor of Science (Non-Medical)		BSNL-3431 ✓
Bachelor of Science (Computer Science)		BCSL-3431 ✓
Bachelor of Science (Economics)		BECL-3431 ✓
Bachelor of Commerce	121103	BCRL-3431
Bachelor of Business Administration	121703	BBRL-3431

Semester III**Course Title: Punjab History and Culture****(30)****Time Allowed: 3 Hours****Max Marks: 70**

Note:- Candidates shall attempt 5 questions in 1000 words, by atleast selecting One section from each section and the 5th question may be attempted from any of the four Section. Each question will carry 14 marks.

Section-I

1. Discuss the impact of Turkish rule on the society and culture of Punjab.

2. What do you know about economic and religious conditions of the people in Punjab under the great Mughals.

Section-II

3. Describe the features of Bhakti Movement.
4. What do you know about Suffism? Explain main featyures of Suffism.

Section-III

5. Describe the Teachings of Guru Nanak Dev Ji.
6. What do you know about the concept of Langar and Sangat introduction by Guru Nanak?

Section-IV

7. Describe the life and contribution of Guru Ram Das in the development of Sikhism.
8. Write about Adi Granth and its importance.

Hindi version

अभ्यर्थी प्रत्येक इकाई से कम से कम एक प्रश्न चुनकर 1000 शब्दों में 5 प्रश्न हल करेंगे और 5वां प्रश्न चार इकाइयों में से किसी एक से हल किया जा सकता है। प्रत्येक प्रश्न 14 अंक का है।

इकाई—1

1. पंजाब के समाज और संस्कृति पर तुर्की शासन के प्रभाव की चर्चा करें।
2. महान मुगलों के अधीन पंजाब में लोगों की आर्थिक और धार्मिक स्थितियों के बारे में आप क्या जानते हैं?

इकाई—2

3. भक्ति आंदोलन की विशेषताओं का वर्णन करें।
4. आप सूफीवाद के बारे में क्या जानते हैं? सूफीवाद की मुख्य विशेषताएं बताइये।

इकाई—3

5. गुरु नानक देव जी की शिक्षाओं का वर्णन करें।
6. गुरु नानक द्वारा लंगर और संगत परिचय की अवधारणा के बारे में आप क्या जानते हैं?

इकाई—4

7. सिख धर्म के विकास में गुरु राम दास के जीवन और योगदान का वर्णन करें।
8. आदि ग्रंथ और उसके महत्व के बारे में लिखें।

Paper Code: 3110

Programme	Course Code	Exam Code
Bachelor of Arts	BARL-3453	121203
Bachelor of Science	BECL-3453	121303

Semester –III

**Course Title: Quantitative Techniques (Quantitative
Techniques-III)**

Time Allowed: 3 Hours**Maximum Marks: 70**

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

Section A

- The total cost function for producing a commodity in x quantity is $TC=Q^3 - 5Q^2 + 60Q$. Find (i) the average cost function (ii) minimum average cost. (14)
- If x_1 and p_1 are the demand and price of Pens and x_2 and p_2 are demand and price of ink, and the demand functions are given by $x_1=p_1^2 p_2^{-3}$ and $x_2=p_1^{-3} p_2^2$. Are the goods complementary or competitive? (14)

Section B

- Integrate: $\int x \cdot \log x \, dx$ (7)
 - Integrate: $\int \frac{(x+5)}{(x+1)(x+2)} \, dx$ (7)
- The demand and supply function under pure competition are $p=1600-x^2$ and $p=2x^2+400$ respectively. Find the consumer's surplus and producer's Surplus. (14)

Section C

5. (a) Define determinant. Discuss the properties of determinant in detail. (7)

(b) Show that

$$\begin{vmatrix} 1 & 1 & 1 \\ x & y & z \\ x^2 & y^2 & z^2 \end{vmatrix} = (x-y)(y-z)(z-x) \quad (7)$$

6. Solve by Crammer Rule

$$x + y + z = 6 ; 2x + 5y + 5z = 27 ; 2x + 5y + 11z = 45 \quad (14)$$

Section D

7. Solve the LPP by Simplex method

$$\text{Maximize } Z = 5x_1 + 3x_2$$

Subject to constraints

$$5x_1 + 2x_2 \leq 10$$

$$-3x_1 - 8x_2 \leq -12$$

$$x_1, x_2 \geq 0$$

(14)

8. Given the following Table

Producing Sector	Input requirements		Final Demand	Total Production
	I	II		
I	300	600	100	1000
II	400	1200	400	2000

- (i) Find the technology coefficient matrix.
 (ii) If the new final demand are 200 and 800 respectively. Find total production needed for new demand.

(14)

Exam Code: 121203
(20)

Paper Code: 3124

Programme: Bachelor of Arts
Semester-III

Course Title: Sanskrit (Elective) (Natak Tatha
Vyakarana)

Course Code: BARL-3466 ✓

Time Allowed: 3 Hours

Max Marks: 70

नोट:— प्रश्न पत्र का माध्यम हिन्दी है। प्रश्नों के उत्तर संस्कृत, हिन्दी, पंजाबी, अंग्रेजी में से किसी भी भाषा में दिए जा सकते हैं।

इस प्रश्न पत्र में कुल चार सैक्शन हैं— ए, बी, सी, एवं डी। छात्र चारों सैक्शन से एक-एक प्रश्न करेंगे तथा किसी एक सैक्शन से दो प्रश्न करने अनिवार्य हैं। कुल पाँच प्रश्न करने अनिवार्य हैं। सभी प्रश्नों के अंक चौदह 14 समान हैं।

Section-A

1. निम्नलिखित पद्यों की व्याख्या कीजिए—
क. पत्या चारित्रशालिन्या द्विपुत्रों मोक्षमिच्छसि।
बलाबलं परिज्ञाय पुत्रमेकं विसर्जय॥
ख. कृतकृत्यं शरीरं मे परिणामेन जर्जरम्।
राक्षसाग्रौ सुतापेक्षी होष्यामि विधिसंस्कृतम्॥
ग. आपदं हि पिता प्राप्तो ज्येष्ठपुत्रेण तार्यते।

ततोऽहमेव यास्यामि गुरुणाः प्राणरक्षणात् ।।

घ. धन्योऽस्मि यद् गुरुप्राणाः स्वैः प्राणैः परिरक्षिताः ।

बन्धुस्त्रेहाद्धि महतः कायस्त्रेहस्तु दुर्लभः ।। २० ।। 14

2. निम्नलिखित पद्यों की व्याख्या कीजिए—

क. मध्यमः पञ्चभूतानां पार्थिवानां च मध्यमः ।

भवे च मध्यमो लोके सर्वकार्येषु मध्यमः ।।

ख. मुच्यतामिति विस्त्रब्धं ब्रवीति यदि में पिता ।

न मुच्यते तथा होष गृहीतो मातुराज्ञया ।।

ग. माता किल मनुष्याणां देवतानां च दैवतम् ।

मातुराज्ञां पुरस्कृत्य वयमेतां दशां गताः ।।

घ. काञ्चनस्तम्भसदृशो रिपूणां निग्रहे रतः ।

अयं तु दक्षिणो बाहुरायुधं सहजं मम ।। ४२ ।। 14

Section-B

3. मध्यमव्यायोग की दो सूक्तियों की सप्रसङ्ग व्याख्या कीजिए—

क. अयं तु दक्षिणो बाहुरायुधं सहजं मम ।। 7

ख. माता किल मनुष्याणां देवतानां च दैवतम् । 7

4. निम्नलिखित प्रश्नों के उत्तर दीजिए—

क. "मध्यमव्यायोग" संस्कृत नाटक का सार महाकवि भास का परिचय देते हुए लिखिए । 7

ख. "मध्यमव्यायोग" संस्कृत के नाटकों के भीम पात्र का चरित्र-चित्रण लिखिए। 7

Section-C

5. निम्नलिखित धातुओं के लट् एवं लोट् लकारों में रूप लिखिए—

1. नम्

2. सिच्

3. कृ

4. कथ्

14

6. क. निम्नलिखित पदों में सन्धि अथवा सन्धि-विच्छेद कीजिए—

1. चन्द्रस् + शोभते

2. मनश्शुद्धिः

3. सद + जनः

4. वागीशः

5. चित् + आनन्दः

6. दिग्गजः

7. गुरुं + नमति

7

ख. निर्धारित छन्दों में से दो का लक्षण एवम् उदहारण समन्वय सहित लिखिए—

1. मालिनी

2. विद्युन्माला

3. उपेन्द्रवज्रा

4. अनुष्टुप्

7

Section-D

7. निम्नलिखित चार धातुओं के लङ्, विधिलङ्, एवं लृट् लकारों में रूप लिखिए—

1. चुर

2. अस्

3. तुद्

4. पा

14

8. निम्नलिखित प्रत्ययों के साथ निर्दिष्ट प्रत्यय लगाकर उनके तद्धितान्त प्रत्यय लिखिए—

मूलधातु + प्रत्यय — नवीन शब्द

1. शुक्ल + त्व

2. मातृ + तल्

3. हिरण्य + मयट्

4. दक्ष + तरप्

5. विद्वस् + तमप्

6. नर + त्व

7. नम्र + तल्

14

Exam Code: 121203

Paper Code: 3118

Programme: Bachelor of Arts (Semester – III)

Course Title: Sociology (Society in India)

Course Code: BARL-3475

Time Allowed: 3 Hours

Max. Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

Section – A

1. Discuss the features on Indian society?

ਸਮਾਜ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ?

भारतीय समाज की विशेषताओं पर चर्चा कीजिए।

2. What are the characteristics of Caste?

ਜਾਤ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਕੀ ਹਨ?

जाति की विशेषताएँ क्या हैं?

Section – B

3. Discuss the types of marriage?

ਵਿਆਹ ਦੀਆਂ ਕਿਸਮਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ?

विवाह के प्रकारों पर चर्चा कीजिए।

4. Define Kinship. Discuss the kinship system in Northern India?

ਰਿਸ਼ਤੇਦਾਰੀ ਨੂੰ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋ। ਉੱਤਰੀ ਭਾਰਤ ਵਿੱਚ ਰਿਸ਼ਤੇਦਾਰੀ ਪ੍ਰਣਾਲੀ ਬਾਰੇ ਚਰਚਾ ਕਰੋ?

ਨਾਤੇਦਾਰੀ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦੇਣ। ਉੱਤਰੀ ਭਾਰਤ ਵਿੱਚ ਨਾਤੇਦਾਰੀ ਕੌਣ-ਕੌਣ ਦੀ ਹੈ?

Section – C

5. What are the main physical features of tribal life in India?

ਭਾਰਤ ਵਿੱਚ ਕਬਾਇਲੀ ਜੀਵਨ ਦੀਆਂ ਮੁੱਖ ਭੌਤਿਕ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਕੀ ਹਨ?

ਭਾਰਤ ਵਿੱਚ ਜਨਜਾਤੀ ਜੀਵਨ ਦੀ ਮੁੱਖ ਭੌਤਿਕ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਕੀ ਹਨ?

6. Discuss the characteristics of urban community?

ਸ਼ਹਿਰੀ ਭਾਈਚਾਰੇ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ?

ਨਗਰੀ ਸਮੁਦਾਏ ਦੀ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ।

Section – D

7. What are the causes of Communalism?

ਫਿਰਕਾਪ੍ਰਸਤੀ ਦੇ ਕਾਰਨ ਕੀ ਹਨ?

ਸਾਮੁਦਾਇਕਤਾ ਦੇ ਕਾਰਨ ਕੀ ਹਨ?

8. Discuss the causes of Regionalism?

ਖੇਤਰਵਾਦ ਦੇ ਕਾਰਨਾਂ ਦੀ ਚਰਚਾ ਕਰੋ?

ਖੇਤਰਵਾਦ ਦੇ ਕਾਰਨਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ।

(For Reappear Candidates Only (2024-25))

Exam Code: 121203

Paper Code: 9308

Programme: Bachelor of Arts (Semester – III)

Course Title: Sociology (Society in India)

Course Code: BARL-3475

Time Allowed: 3 Hours

Max. Marks: 80

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 16 marks.

Section – A

1. Discuss the features on Indian society?

ਭਾਰਤੀ ਸਮਾਜ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ?

भारतीय समाज की विशेषताओं पर चर्चा कीजिए।

2. What are the characteristics of Caste?

ਜਾਤ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਕੀ ਹਨ?

जाति की विशेषताएँ क्या हैं?

Section – B

3. Discuss the types of marriage?

ਵਿਆਹ ਦੀਆਂ ਕਿਸਮਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ?

विवाह के प्रकारों पर चर्चा कीजिए।

4. Define Kinship. Discuss the kinship system in Northern India?

ਰਿਸ਼ਤੇਦਾਰੀ ਨੂੰ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋ। ਉੱਤਰੀ ਭਾਰਤ ਵਿੱਚ ਰਿਸ਼ਤੇਦਾਰੀ ਪ੍ਰਣਾਲੀ ਬਾਰੇ ਚਰਚਾ ਕਰੋ?

नातेदारी की परिभाषा दीजिए। उत्तरी भारत में नातेदारी व्यवस्था पर चर्चा कीजिए।

Section – C

5. What are the main physical features of tribal life in India?

ਭਾਰਤ ਵਿੱਚ ਕਬਾਇਲੀ ਜੀਵਨ ਦੀਆਂ ਮੁੱਖ ਭੌਤਿਕ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਕੀ ਹਨ?

भारत में जनजातीय जीवन की मुख्य भौतिक विशेषताएँ क्या हैं?

6. Discuss the characteristics of urban community?

ਸ਼ਹਿਰੀ ਭਾਈਚਾਰੇ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ?

नगरीय समुदाय की विशेषताओं पर चर्चा कीजिए।

Section – D

7. What are the causes of Communalism?

ਫਿਰਕਾਪ੍ਰਸਤੀ ਦੇ ਕਾਰਨ ਹਨ?

सांप्रदायिकता के कारण क्या हैं?

8. Discuss the causes of Regionalism?

ਖੇਤਰਵਾਦ ਦੇ ਕਾਰਨਾਂ ਦੀ ਚਰਚਾ ਕਰੋ?

क्षेत्रवाद के कारणों पर चर्चा कीजिए।

Paper Code: 3108

Programme	Exam Code	Course Code
Bachelor of Arts	121203	BARM-3124
Bachelor of Science (Economics)	121303	BECM-3124

Semester- III
Course Title: Computer Applications (Vocational)
(Operating System)
(30)

Time Allowed: 3 Hours

Max Marks: 40

Note: Attempt five questions, selecting one question from each section. The fifth question may be attempted from any section. Each question carries 8 marks.

(Section A)

1. What is Operating System? Explain its types along with their advantages and limitations.
2. a) Explain the process of booting in detail.
b) Explain the working of loader in detail.

(Section B)

3. What do you mean by CPU scheduling? List various scheduling algorithms explaining any one of them with an example.

4. What do you mean by page fault and thrashing? How many page fault will occur in optimal page replacement algorithm in three page memory, if following pages in following sequence are accessed:-

2, 3, 1, 4, 2, 3, 1, 4, 2, 5, 2, 3, 4, 2, 3, 5, 1, 2, 4

(Section C)

5. Consider a set of four processes (P1, P2, P3, P4) accessing four resources (R1, R2, R3 and R4). R1, R2, R3 and R4 has a total of 9, 7, 8 and 5 instances respectively. Consider the following Allocation and Maximum matrices, find out whether there will be any safe sequence or not?

Process/Resource	MAX				ALLOC			
	R1	R2	R3	R4	R1	R2	R3	R4
P1	6	2	1	1	2	1	1	1
P2	4	5	5	3	1	2	2	1
P3	5	0	3	3	4	0	2	3
P4	4	4	4	1	1	4	1	0

6. a) What do you mean by preemption and mutual exclusion? Explain with examples.
b) Explain the role of Wait-For graph in deadlock detection.

(Section D)

7. Explain the architecture of Linux Operating System in detail
8. Explain following commands along with all its optiOns:-
 - a) cat
 - b) chmod
 - c) cp
 - d) cd
 - e) ls

Paper Code: 3107

Programme	Exam Code	Course Code
Bachelor of Arts	121203	BARM-3134 ✓
Bachelor of Science (Economics)	121303	BECM-3134 ✓
Bachelor of Science (Computer Science)	121303	BCSM-3134 ✓

Semester- III

**Course Title: Computer Science (Computer Oriented
Numerical and Statistical Methods)
(50)**

Time Allowed: 3 Hours**Max Marks: 40**

Note: Attempt five questions, Each question carries equal (8) marks. Candidates are required to attempt at least one question from each section and fifth question can be attempted from any Section. Students are allowed to use non-storage and non-programmable type scientific calculator.

Section-A

1. (a) What are the types of an errors in numerical calculations? What are the commonly used measures of errors? 4

- (b) Let $x = 0.00458529$. Find the measure of error if x is rounded off to four decimal places. 4
2. (a) Solve the equation $x^3 - 2x - 5 = 0$ using regula Falsi method correct to four decimal places. 4
- (b) Solve the following equations using the Gauss Jordan method:

$$\begin{aligned} 7x - 2y + z &= 4 \\ 7x + y - 5z &= 8 \\ 3x + 7y + 4z &= 10 \end{aligned}$$

4

Section-B

3. Evaluate $\int_{-1}^1 5x^3 - 3x^2 + 2x + 1$ using trapezoidal and Simpson rule having the value of $h=1$ 8
4. From the following data, interpolate the number of students getting marks between 20 and 25

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	20	45	115	210	325

8

Section-C

5. Calculate mean deviation from mode, standard deviation and variance from the following data:

Class	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84
Frequency	8	12	10	13	6	7	2	5

8

6. Median and mode of the following data are given to be 34.8 and 36.5 respectively.

Classes	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	9	16	?	?	?	10	8

Find the missing frequencies when it is given that $N=100$

8

Section-D

7. From the following data, find the coefficient of correlation.

Age of candidate	23	27	28	28	29	30	31	33
% failure	18	20	20	27	21	29	27	29

8

8. Determine both the regression equations from the following data:

X	0	1	2	3	4
Y	1	1.8	1.3	2.5	6.3

Also find the regression coefficients. 8

Paper Code: 9301

Programme	Exam Code	Course Code
Bachelor of Arts	121203	BARM-3134
Bachelor of Science (Economics)	121303	BECM-3134
Bachelor of Science (Computer Science)	121303	BCSM-3134

Semester- III

**Course Title: Computer Science (Computer Oriented
Numerical and Statistical Methods)**

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions, Each question carries equal (10) marks. Candidates are required to attempt at least one question from each section and fifth question can be attempted from any Section. Students are allowed to use non-storage and non-programmable type scientific calculator.

Section-A

1. (a) What are the types of an errors in numerical calculations? What are the commonly used measures of errors?

5

(b) Let $x = 0.00458529$. Find the measure of error if x is rounded off to four decimal places. 5

2. (a) Solve the equation $x^3 - 2x - 5 = 0$ using regula Falsi method correct to four decimal places. 5

(b) Solve the following equations using the Gauss Jordan method:

$$7x - 2y + z = 4$$

$$7x + y - 5z = 8$$

$$3x + 7y + 4z = 10$$

Section-B

3. Evaluate $\int_{-1}^1 5x^3 - 3x^2 + 2x + 1$ using trapezoidal and Simpson rule having the value of $h=1$. 10

4. From the following data, interpolate the number of students getting marks between 20 and 25

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	20	45	115	210	325

10

Section-C

5. Calculate mean deviation from mode, standard deviation and variance from the following data:

Class	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84
Frequency	8	12	10	13	6	7	2	5

(10)

6. Median and mode of the following data are given to be 34.8 and 36.5 respectively.

Classes	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	9	16	?	?	?	10	8

Find the missing frequencies when it is given that $N=100$

(10)

Section-D

7. From the following data, find the coefficient of correlation.

Age of candidate	23	27	28	28	29	30	31	33
% failure	18	20	20	27	21	29	27	29

(10)

8. Determine both the regression equations from the following data:

X	0	1	2	3	4
Y	1	1.8	1.3	2.5	6.3

Also find the regression coefficients.

10

Exam Code: 121203
(40)

Paper Code: 3128

Programme: Bachelor of Arts
Semester-III

Course Title: Cosmetology (Vocational)

Course Code: BARM-3147

Time Allowed: 3 Hours

Max Marks: 40

Note:- Candidates are required to attempt five questions, One question from each section. The fifth question may be attempted from any section. Each question carries 08 Marks.

Section-I

1. Explain the Divisions and forms of Hair with diagram?
2. Draw the Hair Cycle and Explain it?

Section-II

3. Explain the Disorders of Hair and Scalp?
4. What is P.H. Scale? Explain with diagram?

Section-III

5. Explain the Principles of Meal Planning?
6. Explain the Role of Water for Healthy Skin?

Section-IV

7. Write down about Underweight causes, and its dietary management?
8. Explain Five Food groups?

Exam Code: 121203

Paper Code: 3122

Programme: Bachelor of Arts (Semester – III)

Course Title: Indian Classical Dance (Kathak)

Course Code: BARM-3156

Time Allowed: 3 Hours

Max. Marks: 35

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 7 marks.

Section – I

1. What is kathakali dance write about their dancing style, costume and music
2. What is Tandava and Lasya.

Section – II

3. (i) Write the biography of Uday Shankar.
(ii) Write the essay on Dancing: A door to divine.
4. Explain folk dance of Uttar Pradesh.

Section – III

5. (i) Define Sooltaal with the notation of ekgun, dugun, chougun.
(ii) Write the notation in Amad and tora in Ektaal.
6. (i) Write the notation of salami and paran in Teentaal.
(ii) Write ione Kaviti in Sooltaal.

Section – IV

7. Difference between Ektaal and Sooltaal.
8. Write the Notation of Nagma in Ektaal and Sooltaal.

(Punjabi Version)

ਨੋਟ: ਕੁੱਲ ਪੰਜ ਸਵਾਲ ਕਰੋ, ਹਰੇਕ ਭਾਗ ਵਿੱਚੋਂ ਘੱਟੋ-ਘੱਟ ਇੱਕ ਸਵਾਲ ਚੁਣੋ। ਪੰਜਵਾਂ ਸਵਾਲ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਦੇ 7 ਅੰਕ ਹਨ।

ਭਾਗ - I

1. ਕਥਕਾਲੀ ਨਾਚ ਕੀ ਹੈ ਉਹਨਾਂ ਦੇ ਨਾਚ ਸ਼ੈਲੀ, ਪਹਿਰਾਵੇ ਅਤੇ ਸੰਗੀਤ ਬਾਰੇ ਲਿਖੋ।
2. ਤਾਂਡਵ ਅਤੇ ਲਾਸ ਕੀ ਹੈ।

ਭਾਗ - II

3. (i) ਉਦੈ ਸੰਕਰ ਦੀ ਜੀਵਨੀ ਲਿਖੋ।
(ii) ਨਿੱਤ: ਬ੍ਰਹਮਤਾ ਦਾ ਦਰਵਾਜ਼ਾ 'ਤੇ ਲੇਖ ਲਿਖੋ।

ਭਾਗ - III

5. (i) ਸੁਲਤਾਲ ਨੂੰ ਏਕਗੁਣ, ਦੁਗੁਣ, ਚੌਗੁਣ ਦੇ ਸੰਕੇਤ ਨਾਲ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋ।
(ii) ਇੱਕਤਾਲ ਵਿੱਚ ਅਮਦ ਅਤੇ ਤੋਰਾ ਵਿੱਚ ਸੰਕੇਤ ਲਿਖੋ।
6. (i) ਤੀਨਤਾਲ ਵਿੱਚ ਸਲਾਮੀ ਅਤੇ ਪਰਨ ਦਾ ਸੰਕੇਤ ਲਿਖੋ।
(ii) ਸੁਲਤਾਲ ਵਿੱਚ ਇੱਕ ਕਵੀਤ ਲਿਖੋ।

ਭਾਗ - IV

7. ਇੱਕਤਾਲ ਅਤੇ ਸੁਲਤਾਲ ਵਿੱਚ ਅੰਤਰ ਲਿਖੋ।
8. ਏਕਤਾਲ ਅਤੇ ਸੁਲਤਾਲ ਵਿੱਚ ਨਗਮਾ ਦਾ ਸੰਕੇਤ ਲਿਖੋ।

(Hindi Version)

ਨੋਟ: ਪ੍ਰत्यੇਕ ਖੰਡ ਤੋਂ ਕਮ ਤੋਂ ਕਮ ਇੱਕ ਪ੍ਰਸ਼ਨ ਚੁਨੇ ਹੋਵੇ। ਕੁਲ ਪਾँਚ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਉਤਰ ਦੇ।
ਪਾँਚਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੀ ਵੀ ਖੰਡ ਤੋਂ ਦਿੱਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਪ੍ਰत्यੇਕ ਪ੍ਰਸ਼ਨ 7 ਅੰਕਾਂ ਦਾ ਹੈ।

ਖੰਡ - I

1. ਕਥਕਲੀ ਨ੍ਰਿਤ ਕੀ ਹੈ? ਉਨਕੀ ਨ੍ਰਿਤ ਸ਼ੈਲੀ, ਵੇਸ਼ਾਭੂਸ਼ਾ ਅਤੇ ਸੰਗੀਤ ਦੇ ਬਾਰੇ ਮੈਂ ਲਿਖਿਓ।
2. ਟਾਂਡਵ ਅਤੇ ਲਾਸ਼ ਕੀ ਹੈ?

ਖੰਡ - II

3. (i) ਉਦਯ ਸ਼ੰਕਰ ਦੀ ਜੀਵਨੀ ਲਿਖਿਓ।
(ii) ਨ੍ਰਿਤ: ਈਸ਼ਵਰ ਦਾ ਦੁਆਰਾ ਪਰ ਨਿਬੰਧ ਲਿਖਿਓ।
4. ਉਤਰ ਪ੍ਰਦੇਸ਼ ਦੇ ਲੋਕ ਨ੍ਰਿਤਾਂ ਦੀ ਵਿਆਖਿਆ ਕੀਜਿਓ।

ਖੰਡ - III

5. (i) ਏਕਗੁਣ, ਦੁਗੁਣ, ਚੌਗੁਣ ਦੇ ਸੰਕੇਤਨ ਦੇ ਸਾਥ ਸੁਲਤਾਲ ਦੀ ਪਰਿਭਾਸ਼ਿਤ ਕੀਜਿਓ।
(ii) ਏਕਤਾਲ ਮੈਂ ਅਮਦ ਅਤੇ ਤੋਰਾ ਦੇ ਸੰਕੇਤਨ ਲਿਖਿਓ।
6. (i) ਤੀਨਤਾਲ ਮੈਂ ਸਲਾਮੀ ਅਤੇ ਪਰਨ ਦੇ ਸੰਕੇਤਨ ਲਿਖਿਓ।
(ii) ਸੁਲਤਾਲ ਮੈਂ ਏਕ ਕਵੀਤਾ ਲਿਖਿਓ।

ਖੰਡ - IV

7. ਏਕਤਾਲ ਅਤੇ ਸੁਲਤਾਲ ਮੈਂ ਅੰਤਰ ਲਿਖੋ।
8. ਨਗਮਾ ਦਾ ਸੁਰ ਏਕਤਾਲ ਅਤੇ ਸੁਲਤਾਲ ਮੈਂ ਲਿਖੋ।

Exam Code: 121203
(40)

Paper Code: 3129

Programme: Bachelor of Arts
Semester-III

Course Title: English (Elective)

Course Code: BARM-3198

Time Allowed: 3 Hours

Max Marks: 50

Section A

1. Explain any three literary terms in about 100 words each
(3*3 = 9)
- a) Allusion
 - b) Allegory
 - c) Augustan Age
 - d) Beast Fable
 - e) Conflict

Section B

2. Transcribe phonetically any 9 words: (9*1=9)
- a) Agony
 - b) Antonym
 - c) Capable
 - d) Committee
 - e) Adversity

- f) Decorum
- g) Dog
- h) Balloon
- i) Tiger
- j) Pan
- k) Pencil
- l) Skirt

Section C

3. Explain any one quotation, with reference to the context, in about 300 words (1*6 = 6)
- a) "Four legs good, two legs bad.
- Or
- b) "All animals are equal, but some animals are more equal than others."
4. Answer any two questions in about 500 words each (2*5=10)
- a) Discuss in brief theme of Animal Farm.
- b) What is the role of Boxer in Animal Farm?
- c) What is Animalism? What are its basic principles?

Section D

5. Explain any one quotation with reference to the context in about 300 words (1*6 =6)
- a) "But most thro' midnight streets I hear/
How the youthful harlot's curse /

Blasts the newborn infants tear/
And blights with plagues the marriage hearse".

Or

b) "Enough of Science and art/Close up this barren
leaves!

Come forth and bring with you a heart/
That watches and receives. "

6. Answer any two questions in about 500 words each

(2*5=10)

- a. Bring out the satirical element in the poem
"Belinda's Toilet ".
- b. Write a critical summary of the poem "Man and
Nature".
- c. What is the theme of the poem "Leave this
chanting?"

Exam Code: 121203

Paper Code: 3127

Programme: Bachelor of Arts (Semester – III)

Course Title: Fashion Designing and Garment

Construction (Vocational) (Fundamentals of Textiles-I)

Course Code: BARM-3237 ✓

Time Allowed: 3 Hours

Max. Marks: 30

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 6 marks.

Section-A

1. Describe textile and its classification.
2. Define following:-
 - (a) Fibre strength
 - (b) Moisture absorption
 - (c) Filaments

Section-B

3. Differentiate between the properties of Silk and wool.
4. Discuss in detail the manufacturing process of Cotton.

Section-C

5. Discuss the manufacturing process of Nylon with suitable diagrams.
6. Explain the physical and chemical properties of Rayon.

Section-D

7. Differentiate between:-
 - (a) Carded and Combed yarn.
 - (b) Filament and spun yarn.
- 8 Write a note on novelty yarn.

Exam Code: 121203

Paper Code: 3119

Programme: Bachelor of Arts (Semester – III)

Course Title: Fine Arts (Drawing and Painting)

Course Code: BARM-3245

Time Allowed: 3 Hours

Max Marks: 30

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any Section. Each question carries 6 marks.

Section – A

1. Explain Vishnu from Mathura.

मथुरा से 'विष्णु' पर नोट लिखें।

ਮਥੁਰਾ ਦੇ ਵਿਸ਼ਨੂੰ ਤੇ ਨੋਟ ਲਿਖੋ।

2. Give an essay on Seated Budha from Sarnath.

सारनाथ में Seated Budha पर एक निबंध दीजिए।

ਸਾਰਨਾਥ ਦੇ Seated Budha ਤੇ ਨਿਬੰਧ ਲਿਖੋ।

Section – B

3. Explain 'Ravana Shaking Mount Kailash' from Ellora.

एलोरा के 'Ravana Shaking Mount Kailash' की व्याख्या करें।

ਏਲੋਰਾ ਦੇ 'Ravana Shaking Mount Kailash' ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

4. Write an essay on Trimurti from Elephanta.

एलीफेंटा की त्रिमूर्ति पर एक निबंध लिखें।

Elephanta ਦੀ ਤ੍ਰਿਮੂਰਤੀ ਤੇ ਨਿਬੰਧ ਲਿਖੋ।

Section – C

5. What do you know about 'Descent of Ganges'?

'Descent of Ganges' के बारे में आप क्या जानते हैं?

'Descent of Ganges' ਦੇ ਬਾਰੇ ਤੁਸੀਂ ਕੀ ਜਾਣਦੇ ਹੋ?

6. Give a detailed note on Mahishasurmardini.

महिषासुरमर्दिनी पर एक विस्तृत टिप्पणी दीजिए।

Mahishasurmardini ਤੇ ਨੋਟ ਲਿਖੋ।

Section – D

7. Give detailed essay on Chola Bronze with special reference to Shiva Nataraja.

Shiva Nataraja के विशेष संदर्भ में Chola Bronze पर विस्तृत निबंध दीजिए।

Shiva Nataraja ਬਾਰੇ ਵਿਸ਼ੇਸ਼ ਤੌਰ ਤੇ ਦੱਸਦਿਆਂ Chola Bronze ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

8. Explain, 'Parvati' in about 500 words.

'पार्वती' की लगभग 500 शब्दों में व्याख्या कीजिए।

'Parvati' ਦੀ ਲਗਭਗ 500 ਸ਼ਬਦਾਂ 'ਚ ਵਿਆਖਿਆ ਕਰੋ।

Exam Code: 121203

Paper Code: 3116

Programme: Bachelor of Arts (Semester-III)

Course Title: Home Science (Clothing Textiles-I)

Course Code: BARM-3284

Time Allowed: 3 Hours

Maximum Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

Section A

Q 1 Explain the measuring, marking and cutting equipment used in sewing with diagrams.

Q2 What are the defects and remedies for:

- i. Needle breaking
- ii. Machine working heavy
- iii. Upper thread tension
- iv. Thread looping
- v. Lower thread tension
- vi. Stitch missing

Section B

Q3 What are the points to be kept in mind while giving and taking body measurements. Explain the three types of body measurements with diagrams.

Q4 What do you mean by drafting? What is pattern making and its principles.

Section C

Q5 Explain the manufacture of cotton in detail. Also explain its structure and properties.

Q6 Classify textile fibers according to source and thermoplasticity.
Explain the general properties of animal fibers.

Section D

Q7 What do you mean by tie and dye. Explain its types with diagrams.

Q8 Explain different methods of washing and care of fabrics.

(Punjabi Version)

ਨੋਟ: ਵਿਦਿਆਰਥੀਆਂ ਨੂੰ ਹਰੇਕ ਭਾਗ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਦੇ ਨਾਲ ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਕੋਸ਼ਿਸ਼ ਕਰਨ ਦੀ ਲੋੜ ਹੁੰਦੀ ਹੈ। ਪੰਜਵਾਂ ਸਵਾਲ ਕਿਸੇ ਵੀ ਭਾਗ ਤੋਂ ਕਰਨ ਦੀ ਕੋਸ਼ਿਸ਼ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ। ਹਰ ਸਵਾਲ 1 ਅੰਕਾਂ ਦਾ ਹੈ।

ਸੈਕਸ਼ਨ ਏ

Q 1 ਚਿੱਤਰਾਂ ਦੇ ਨਾਲ ਸਿਲਾਈ ਵਿੱਚ ਵਰਤੇ ਜਾਣ ਵਾਲੇ ਮਾਪਣ, ਨਿਸ਼ਾਨ ਲਗਾਉਣ ਅਤੇ ਕੱਟਣ ਵਾਲੇ ਉਪਕਰਣਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

Q2 ਹੇਠ ਲਿਖੇ ਨੁਕਸ ਅਤੇ ਉਪਚਾਰ ਕੀ ਹਨ:

- i. ਸੂਈ ਤੋੜਨਾ
- ii. ਮਸ਼ੀਨ ਭਾਰੀ ਕੰਮ ਕਰ ਰਹੀ ਹੈ
- iii. ਉਪਰਲੇ ਥਰਿੱਡ ਤਣਾਅ
- iv. ਥਰਿੱਡ ਲੁਪਿੰਗ
- v. ਹੇਠਲੇ ਥਰਿੱਡ ਤਣਾਅ
- vi. ਸਟੀਚ ਗੁੰਮ ਹੈ

ਸੈਕਸ਼ਨ ਬੀ

Q3 ਸਰੀਰ ਦੇ ਮਾਪ ਦੇਣ ਅਤੇ ਲੈਂਦੇ ਸਮੇਂ ਕਿਹੜੇ ਨੁਕਤੇ ਧਿਆਨ ਵਿੱਚ ਰੱਖਣੇ ਚਾਹੀਦੇ ਹਨ। ਚਿੱਤਰਾਂ ਦੇ ਨਾਲ ਸਰੀਰ ਦੇ ਮਾਪ ਦੀਆਂ ਤਿੰਨ ਕਿਸਮਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

Q4 ਡਰਾਫਟ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ? ਪੈਟਰਨ ਬਣਾਉਣਾ ਕੀ ਹੈ ਅਤੇ ਇਸਦੇ ਸਿਧਾਂਤ ਵਿਸਥਾਰ ਨਾਲ ਸਮਝਾਓ।

ਸੈਕਸ਼ਨ ਸੀ

Q5 ਕਪਾਹ ਦੇ ਨਿਰਮਾਣ ਬਾਰੇ ਵਿਸਥਾਰ ਵਿੱਚ ਦੱਸੋ। ਇਸਦੀ ਬਣਤਰ ਅਤੇ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਦੀ ਵਿਆਖਿਆ ਵੀ ਕਰੋ।

Q6 ਸਰੋਤ ਅਤੇ ਥਰਮੋਪਲਾਸਟੀਟੀ ਦੇ ਅਨੁਸਾਰ ਟੈਕਸਟਾਈਲ ਫਾਈਬਰਾਂ ਦਾ ਵਰਗੀਕਰਨ ਕਰੋ। ਜਾਨਵਰਾਂ ਦੇ ਰੇਸ਼ਿਆਂ ਦੀਆਂ ਆਮ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

ਸੈਕਸ਼ਨ ਡੀ

Q7 ਟਾਈ ਅਤੇ ਡਾਈ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ। ਇਸ ਦੀਆਂ ਕਿਸਮਾਂ ਨੂੰ ਚਿੱਤਰਾਂ ਨਾਲ ਸਮਝਾਓ।

Q8 ਕੱਪੜੇ ਧੋਣ ਅਤੇ ਦੇਖਭਾਲ ਦੇ ਵੱਖ-ਵੱਖ ਤਰੀਕਿਆਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

(Hindi Version)

ਨੋਟ: ਇਸमें चार खंड हैं और प्रत्येक खंड में दो प्रश्न हैं। छात्रों को प्रत्येक अनुभाग से एक प्रश्न सहित कुल पांच प्रश्नों का उत्तर देना होगा। पांचवें प्रश्न को किसी भी अनुभाग से हल किया जा सकता है। प्रत्येक प्रश्न 10 अंक का है।

खंड एक

प्रश्न 1 सिलाई में उपयोग किए जाने वाले माप, अंकन और काटने के उपकरण को चित्र सहित समझाइए।

प्रश्न 2 निम्नलिखित के दोष क्या हैं और उपाय क्या हैं:

- i. सुई टूटना
- ii. मशीन भारी काम कर रही है
- iii. ऊपरी धागे का तनाव
- iv. थ्रेड लूपिंग
- v. धागे का तनाव कम
- vi. सिलाई गायब

खंड बी

Q3 शरीर का माप लेते और देते समय किन बातों का ध्यान रखना चाहिए।
शरीर के तीन प्रकार के मापों को चित्र सहित समझाइए।

Q4 Drafting से आपका क्या तात्पर्य है? पैटर्न मेकिंग क्या है और इसके सिद्धांत विस्तार से समझाइये।

खंड सी

Q5 कपास के निर्माण को विस्तार से समझाइये। इसकी संरचना एवं गुणों को भी समझाइये।

Q6 कपड़ा रेशों को स्रोत और थर्मोप्लास्टिकिटी के अनुसार वर्गीकृत करें।
पशु रेशों के सामान्य गुणों की व्याख्या करें।

खंड डी

Q7 टाई एंड डाई से आप क्या समझते हैं? इसके प्रकार चित्र सहित समझाइये।

Q8 कपड़ों की धुलाई और देखभाल के विभिन्न तरीकों की व्याख्या करें।

Exam Code: 121203

Paper Code: 3114

Programme: Bachelor of Arts (Semester-III)

Course Title: Journalism and Mass Communication

(Vocational)

(Writing for Print Media)

Course Code: BARM-3313

Time Allowed: 3 hours

Maximum Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

Section-A

- Q1. What is News? Discuss the elements of News.
- Q2. Elaborate on different types of leads.

Section-B

- Q3. Write a note on working of reporting section of a newspaper.
- Q4. What role do you see of an Editor in a newspaper? Discuss.

Section-C

- Q5. Describe production process of a newspaper.
- Q6. Explain the qualities that you do think a journalist should have.

Section-D

- Q7. How a news story is edited? Elaborate.
- Q8. Write short notes on the following:-
 - A) Online Journalism
 - B) Letter to the Editor

(For Reappear Candidates Only (2024-25))

Paper Code: 9302

Programme	Course Code	Exam Code
Bachelor of Arts (Semester –III)	BARM-3333 (I) ✓	121203 ✓
Bachelor of Science (Non-Medical) (Semester –III)	BSNM-3333 (I) ✓	121303 ✓
Bachelor of Science (Economics) (Semester –III)	BECM-3333 (I) ✓	121303 ✓
Bachelor of Science (Computer Science) (Semester –III)	BCSM-3333 (I) ✓	121303 ✓

Course Title: Mathematics (Analysis)**Time Allowed: - 3 Hours****Max Marks: 80**

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 16 marks.

Section – A

- 1 (a) Prove that the sequence $\{a_n\}$ where $a_n = 8 + \frac{1}{n^3}$ is a Cauchy sequence and find its limit. (8)
- (b) If $a_n = 1 + \frac{1}{2} + \frac{1}{3} + \dots + \frac{1}{n} - \log n$, then prove that $\{a_n\}$ is a monotonically decreasing Sequence. Prove that it is convergent. (8)
- 2 (a) State and Prove Cauchy's First Theorem on Limits. (8)
- (b) Prove that the sequence $\{a_n\}$, where $a_n = \frac{2n-1}{3n+5}$ converges to $\frac{2}{3}$. (8)

Section – B

- 3 (a) Test the following series for convergence

$$\sqrt{\frac{1}{2^3}} + \sqrt{\frac{2}{3^3}} + \sqrt{\frac{3}{4^3}} + \dots \quad (8)$$

- (b) Test the convergence or divergence of the series

$$\frac{2}{1^2}x + \frac{3^2}{2^3}x^2 + \frac{4^3}{3^4}x^3 + \dots, x > 0 \quad (8)$$

- 4 (a) State and Prove D'Alembert's Ratio Test. (8)

- (b) Using Cauchy's Integral Test, discuss the convergence or divergence of the series $\sum_{n=1}^{\infty} \frac{1}{n^p}, p > 0$ (8)

Section – C

- 5 (a) Prove that $\int_0^{\pi} \frac{x \tan x}{\sec x + \cos x} dx = \frac{\pi^2}{4}$ (8)

- (b) Prove that if $f(x)$ is a bounded function defined on $[a, b]$, then the lower R- integral cannot exceed the upper R- integral of $f(x)$ on $[a, b]$. (8)

- 6 (a) Compute $L(P, f)$ and $U(P, f)$ for the function $f(x) = x$, where $P = \left\{0, \frac{1}{3}, \frac{2}{3}, 1\right\}$ (8)

(b) Let $f(x) = 3x + 1$ on $[1, 2]$. Prove that f is R- integrable on $[1, 2]$ and $\int_1^2 f(x)dx = \frac{11}{2}$

(8)

Section – D

7 (a) Prove that $\beta(m, n) = 2 \int_0^{\frac{\pi}{2}} \sin^{2m-1}\theta \cos^{2n-1}\theta d\theta$

(8)

(b) Show that $\int_0^{\infty} \frac{1}{1+y^4} dy = \frac{\pi\sqrt{2}}{4}$

(8)

8 (a) Examine the convergence of the integral:

$$\int_2^3 \frac{dx}{(x-2)^{\frac{1}{4}} (3-x)^2}$$

(8)

(b) Show that $\int_0^{\infty} \sin(x^2) dx$ is convergent.

(8)

(For Reappear Candidates Only (2024-25))

Paper Code: 9303

Programme	Course Code	Exam Code
Bachelor of Arts Sem-III	BARM -3333 (II)	121203
Bachelor of Science (Non-Medical) (Semester -III)	BSNM-3333 (II)	121303
Bachelor of Science (Computer Science) (Semester -III)	BCSM-3333 (II)	121303
Bachelor of Science (Economics) (Semester -III)	BECM-3333 (II)	121303

Course Title: Mathematics (Analytical Geometry)**Time Allowed: - 3 Hours****Max Marks: 60**

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 12 marks.

Section-A

- Q1 (a) Justify whether or not t, Δ and θ are invariant when the equation $2x^2 + 3xy - 2y^2 - 7x + y - 2 = 0$ is transformed by shifting the origin to the point $(1, 1)$. (6)
- (b) Transform to parallel axes through the point $(1, -2)$ the equation $2x^2 + y^2 - 4x + 4y = 0$. (6)
- Q2 (a) If the pairs of straight lines $x^2 - 2pxy - y^2 = 0$ and $x^2 - 2qxy - y^2 = 0$ be such that each pair bisects the angle between the other pair, prove or disprove that $pq = -1$. (6)
- (b) Does the equation $6x^2 + 5xy - 4y^2 + 7x + 13y - 3 = 0$ represent a pair of straight lines? If yes, find the point of intersection and the angle between them. (6)

Section-B

- Q3 (a) Find the vertex, focus, axis, directrix and length of latus rectum of the parabola $3x^2 + 12x - 8y = 0$. (6)
- (b) Find the equation of the normal to the parabola $y^2 = 4x$ which is perpendicular to the line $x + 3y + 7 = 0$. (6)
- Q4 (a) Define Pole and Polar with respect to a parabola.
- Find the pole of the line $y = 2x$ with respect to parabola $y^2 = 2x$. (6)
- (b) Prove or disprove that the tangent at the extremity of a diameter of a parabola is parallel to the chords bisected by the diameter. (6)

Section-C

- Q5 (a) Find the coordinates of foci, vertices, eccentricity, lengths of major and minor axes for the ellipse $25x^2 + 16y^2 = 400$. (6)

- (b) Check whether the line $3x - 4y - 5 = 0$ is a tangent to the hyperbola $x^2 - 4y^2 = 5$. If yes, find the point of contact. (6)

Q6 (a) Find the equation of the chord of contact of tangents from the point (x_1, y_1) to the ellipse

$$\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1. \quad (6)$$

- (b) Reduce the conic $4x^2 - 4xy + y^2 - 8x - 6y + 5 = 0$ to standard form and trace it. (6)

Section-D

Q7 (a) Define Orthogonal spheres. Find the angle of intersection of the spheres $x^2 + y^2 + z^2 - 2x + 4y - 6z - 16 = 0$ and $x^2 + y^2 + z^2 + 4x + 6y + 8z = 0$. (6)

- (b) Prove or disprove that the planes $x + 2y + 3z = 6$; $3x + 4y + 5z = 2$ and $5x + 4y + 3z + 18 = 0$ meet in a line. If yes, find the equation of this line in the symmetric form. (6)

Q 8 (a) Define Radical plane. Find the equation of the radical plane of the spheres $x^2 + y^2 + z^2 - 2x + 6z = 6$ and $2(x^2 + y^2 + z^2) = 3y + 5$. (6)

- (b) Find the centre and radius of the circle

$$x^2 + y^2 + z^2 - 2y - 4z = 11, \quad x + 2y + 2z = 15. \quad (6)$$

Exam Code: 121203

Paper Code: 3123

Programme: Bachelor of Arts Semester III

Course Title: Music (Vocal)

Course Code: BARM-3366

Time Allowed: 3 Hours

Max Marks: 35

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 7 marks.

SECTION – A

Q1. Write a detailed note on the development of Indian music during Akbar's reign.

ਅਕਬਰ ਦੇ ਸਮੇਂ ਦੌਰਾਨ ਭਾਰਤੀ ਸੰਗੀਤ ਦੇ ਵਿਕਾਸ ਬਾਰੇ ਵਿਸਥਾਰ ਨਾਲ ਲਿਖੋ। (7 Marks)

Q2. Explain the given terms with suitable examples:

(a) BolBaant, (b) Upaj

ਦਿੱਤੇ ਗਏ ਸ਼ਬਦਾਂ ਦੀ ਵਿਆਖਿਆ ਉਦਾਹਰਣਾਂ ਸਮੇਤ ਕਰੋ:

(a) ਬੋਲਬਾਂਟ (b) ਉਪਜ

(7 Marks)

SECTION – B

Q3. Describe the process of tuning the Tanpura.

ਤਾਨਪੁਰੇ ਨੂੰ ਸੁਰ ਕਰਨ ਦੀ ਵਿਧੀ ਦਾ ਵਰਣਨ ਕਰੋ। (7 Marks)

Q4. Write down the life sketch and contributions of Prof. Kartar Singh towards Gurmat Sangeet.

ਪ੍ਰੋ. ਕਰਤਾਰ ਸਿੰਘ ਦੀ ਜੀਵਨ ਯਾਤਰਾ ਅਤੇ ਗੁਰਮਤ ਸੰਗੀਤ ਵਿੱਚ ਉਨ੍ਹਾਂ ਦੇ ਯੋਗਦਾਨ ਬਾਰੇ ਲਿਖੋ। (7 Marks)

SECTION – C

Q5. Write the notation of the Raga Vrindavani Sarang

ਰਾਗ ਵਿੰਦਾਵਨੀ ਸਾਰੰਗ ਦੀ ਨੋਟੇਸ਼ਨ ਲਿਖੋ। (7 Marks)

Q6. Write in detail about Sooltal, including its notation up to dugun layakaries.

ਸੂਲਤਾਲ ਬਾਰੇ ਵਿਸਥਾਰ ਨਾਲ ਲਿਖਣ ਸਹਿਤ ਉਸ ਨੂੰ ਦੂਗੁਣ ਲਇਆਕਾਰੀ ਤੱਕ ਲਿਖੋ। (7 Marks)

SECTION – D

Q7. How did Sri Guru Arjan Dev Ji influence the tradition of Gurmat Sangeet? Provide examples.

ਸ੍ਰੀ ਗੁਰੂ ਅਰਜਨ ਦੇਵ ਜੀ ਨੇ ਗੁਰਮਤ ਸੰਗੀਤ ਦੀ ਪਰੰਪਰਾ ਨੂੰ ਕਿਵੇਂ ਮਜ਼ਬੂਤ ਕੀਤਾ? ਉਦਾਹਰਣਾਂ ਸਮੇਤ ਲਿਖੋ। (7 Marks)

Q8. What are Kirtan Chaunkis? Discuss their musical structure and role in Gurmat Sangeet.

ਕੀਰਤਨ ਚੌਂਕੀ ਕੀ ਹੁੰਦੀ ਹੈ? ਇਸ ਦੀ ਸੰਗੀਤਕ ਬਣਤਰ ਅਤੇ ਗੁਰਮਤ ਸੰਗੀਤ ਵਿੱਚ ਇਸ ਦੀ ਭੂਮਿਕਾ ਬਾਰੇ ਲਿਖੋ। (7 Marks)

Exam Code: 121203

Paper Code: 3125

Programme: Bachelor of Arts (Semester – III)

Course Title: Philosophy

(Deductive Logic and Applied Ethics)

Course Code: BARM-3377 ✓

Time Allowed: 3 Hours

Maximum Marks: 50

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

SECTION – A

1. Discuss the nature and scope of Logic in everyday life. 10
2. Define 'Term' and explain its kinds with suitable examples. 10

SECTION – B

3. What is the Square of Opposition? Explain Contradiction and Contrariety with examples. 10
4. What is a Categorical Syllogism? Explain its basic structure with an example. 10

SECTION – C

5. Describe the main fields or branches covered under Applied Ethics. 10
6. What is Euthanasia? Explain its types. 10

SECTION – D

7. Describe the role of a lawyer in maintaining ethical conduct in court and society. 10
8. What is Business Ethics? Why is it important for a business organization? 10

Exam Code: 121203

Paper Code: 3117 - R

Programme: Bachelor of Arts (Semester - III)

Course Title: Physical Education

Course Code: BARM-3384

Time Allowed: 3 Hours

Max Marks: 40

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 08 marks.

Section-A

Q1. Discuss the nature and characteristics of skill learning. What are the stages involved in developing motor and cognitive skills?

ਪ੍ਰਸ਼ਨ 1. ਹੁਨਰਮੰਦ ਸਿੱਖਣ (Skill Learning) ਦੀ ਪ੍ਰਕ੍ਰਿਤੀ ਅਤੇ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ 'ਤੇ ਚਰਚਾ ਕਰੋ। ਮਾਨਸਿਕ ਅਤੇ ਸਰੀਰਕ ਹੁਨਰਾਂ ਦੇ ਵਿਕਾਸ ਦੇ ਕਿਹੜੇ ਪੜਾਅ ਹੁੰਦੇ ਹਨ?

ਪ੍ਰਸ਼ਨ 1. ਕੌਸ਼ਲ ਅਧਿਗਮ (Skill Learning) ਦੀ ਪ੍ਰਕ੍ਰਿਤੀ ਅਤੇ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ 'ਤੇ ਚਰਚਾ ਕੀਤੀ ਜਾਵੇ। ਮਾਨਸਿਕ ਅਤੇ ਸਰੀਰਕ ਕੌਸ਼ਲਾਂ ਦੇ ਵਿਕਾਸ ਦੇ ਕੌਨ-ਕੌਨ ਸੇ ਚਰਚਾ ਹੋ ਰਹੇ ਹਨ?

Q2. Discuss the types and methods of motivation with suitable examples. How can intrinsic and extrinsic motivation influence learning and work efficiency?

ਪ੍ਰਸ਼ਨ 2. ਪ੍ਰੇਰਣਾ ਦੀਆਂ ਕਿਸਮਾਂ ਅਤੇ ਢੰਗਾਂ (Types and Methods of Motivation) ਉੱਪਰ ਚਰਚਾ ਕਰੋ। ਅੰਦਰੂਨੀ (Intrinsic) ਅਤੇ ਬਾਹਰੀ (Extrinsic) ਪ੍ਰੇਰਣਾ ਸਿੱਖਣ ਅਤੇ ਕੰਮ ਦੀ ਕੁਸ਼ਲਤਾ 'ਤੇ ਕਿਵੇਂ ਪ੍ਰਭਾਵ ਪੈਂਦਾ ਹੈ?

ਪ੍ਰਸ਼ਨ 2. ਪ੍ਰੇਰਣਾ ਦੇ ਪ੍ਰਕਾਰ ਅਤੇ ਵਿਧੀਆਂ (Types and Methods of Motivation) 'ਤੇ ਚਰਚਾ ਕੀਤੀ ਜਾਵੇ। ਅੰਦਰੂਨੀ (Intrinsic) ਅਤੇ ਬਾਹਰੀ (Extrinsic) ਪ੍ਰੇਰਣਾ ਸਿੱਖਣ ਅਤੇ ਕੰਮ ਦੀ ਕੁਸ਼ਲਤਾ 'ਤੇ ਕਿਵੇਂ ਪ੍ਰਭਾਵ ਪੈਂਦਾ ਹੈ?

Section- B

Q3. Discuss the causes and effects of stress and anxiety in sports. What strategies can be used by coaches and players to manage these emotions effectively?

ਪ੍ਰਸ਼ਨ 3. ਖੇਡਾਂ ਵਿੱਚ ਤਣਾਅ ਅਤੇ ਚਿੰਤਾ ਦੇ ਕਾਰਨ ਅਤੇ ਪ੍ਰਭਾਵਾਂ 'ਤੇ ਚਰਚਾ ਕਰੋ। ਕੋਚ ਅਤੇ ਖਿਡਾਰੀ ਇਨ੍ਹਾਂ ਭਾਵਨਾਵਾਂ ਨੂੰ ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਢੰਗ ਨਾਲ ਕਿਵੇਂ ਨਿਯੰਤਰਿਤ ਕਰ ਸਕਦੇ ਹਨ?

ਪ੍ਰਸ਼ਨ 3. ਖੇਡਾਂ ਵਿੱਚ ਤਣਾਅ ਅਤੇ ਚਿੰਤਾ ਦੇ ਕਾਰਨਾਂ ਅਤੇ ਪ੍ਰਭਾਵਾਂ 'ਤੇ ਚਰਚਾ ਕੀਤੀ ਜਾਵੇ। ਕੋਚ (Coach) ਅਤੇ ਖਿਡਾਰੀ ਇਨ੍ਹਾਂ ਭਾਵਨਾਵਾਂ ਨੂੰ ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਢੰਗ ਨਾਲ ਕਿਵੇਂ ਨਿਯੰਤਰਿਤ ਕਰ ਸਕਦੇ ਹਨ?

Q4. Describe the common psychological problems faced by adolescents in sports situations. Suggest strategies that coaches and teachers can use to guide and support adolescent players effectively.

ਪ੍ਰਸ਼ਨ 4. ਖੇਡਾਂ ਦੌਰਾਨ ਕਿਸੇ ਵੀ ਉਮਰ ਦੇ ਖਿਡਾਰੀਆਂ ਦੀਆਂ ਮਨੋਵਿਗਿਆਨਕ ਸਮੱਸਿਆਵਾਂ ਦਾ ਵੇਰਵਾ ਕਰੋ। ਕੋਚਾਂ ਅਤੇ ਅਧਿਆਪਕਾਂ ਵੱਲੋਂ ਉਨ੍ਹਾਂ ਨੂੰ ਸਹੀ ਦਿਸ਼ਾ ਦੇਣ ਅਤੇ ਸਹਾਇਤਾ ਕਰਨ ਦੇ ਤਰੀਕੇ ਸੁਝਾਓ।

प्रश्न 4. खेल परिस्थितियों में किशोरों द्वारा झेली जाने वाली सामान्य मनोवैज्ञानिक समस्याओं का वर्णन कीजिए। प्रशिक्षकों और शिक्षकों द्वारा उन्हें मार्गदर्शन और सहयोग देने के कौन-कौन से प्रभावी उपाय अपनाए जा सकते हैं?

Section- C

Q5. Describe the different dimensions of personality as proposed by various theorists. How do these dimensions help in understanding individual differences among people?

पूछन 5. दैख-दैख विद्वानों द्वारा सिद्धीय विअकतीतव दे मापदंडों (Dimensions) दी विस्वार नाल विआधिया करे। इह मापदंड लेकों विंच विअकतीगत अंतर समझन विंच विद्वे मरदगार हन?

प्रश्न 5. विभिन्न विद्वानों द्वारा प्रस्तावित व्यक्तित्व के आयामों (Dimensions) का वर्णन कीजिए। ये आयाम व्यक्तियों में पाए जाने वाले भिन्नताओं को समझने में कैसे सहायक होते हैं?

Q6. Describe the factors affecting transfer of training. How can coaches and teachers enhance positive transfer and minimize negative transfer during skill learning?

पूछन 6. सिंचवारी विंच थं वरली नुं पुराविच वरन वाले वारकों (Factors Affecting Transfer of Training) दा वेरवा करे। वेच अडे अधिआपक सकारात्मिक ट्रांसफर नुं विद्वे वया सकदे हन अडे नकारात्मिक ट्रांसफर नुं विद्वे वया सकदे हन?

प्रश्न 6. प्रशिक्षण के स्थानांतरण को प्रभावित करने वाले कारकों (Factors Affecting Transfer of Training) का वर्णन कीजिए। प्रशिक्षक और शिक्षक सकारात्मक स्थानांतरण को कैसे बढ़ा सकते हैं तथा नकारात्मक स्थानांतरण को कैसे कम कर सकते हैं?

Section- D

Q7. Explain the role of socio-economic, educational, and administrative factors in influencing India's poor performance at national and international sports events.

पूछन 7. समाजिक-आर्थिक, शिक्षात्मक और प्रशासनिक कारकों की भूमिका को चर्चा करे जे भारत दे राष्ट्रीय अडे अंतरराष्ट्रीय खेड प्रदर्शन नुं पुराविच वरदे हन।

प्रश्न 7. सामाजिक-आर्थिक, शैक्षिक और प्रशासनिक कारक भारत के राष्ट्रीय और अंतरराष्ट्रीय खेल प्रदर्शन को किस प्रकार प्रभावित करते हैं, इस पर चर्चा कीजिए।

Q8. Explain the meaning and definitions of socialization. How does the process of socialization help an individual to become an active member of society?

पूछन 8. समाजीकरण (Socialization) दा अरथ अडे परिभाषाएं समझाए। समाजीकरण दी पूर्वविआ किस उतुं विअकती नुं समाज दा सरगारम मैथर वटाउंसी है?

प्रश्न 8. सामाजीकरण (Socialization) का अर्थ और परिभाषाएं स्पष्ट कीजिए। सामाजीकरण की प्रक्रिया व्यक्ति को समाज का सक्रिय सदस्य बनने में कैसे सहायता करती है?

Exam Code: 121203

Paper Code: 3117

Programme: Bachelor of Arts Semester III

Course Title: Physical Education

Course Code: BARM-3384

Time Allowed: 3 Hrs.

Max. Marks: 40

Note: Attempt five questions in all, selecting atleast one question from each section. The fifth question can be attempted from any section. Each question carries 8 marks.

Section-A

Q1. Explain the meaning and importance of learning. How does learning influence human behaviour and personality development?

Q2. Explain the meaning and definitions of motivation. Why is motivation important for human behaviour and performance?

Section-B

Q3. Explain the psychological factors affecting sports performance. How do stress, tension, anxiety, and aggression influence an athlete's efficiency and results?

Q4. Explain the psychological characteristics of adolescents participating in sports. How do emotions, motivation, and self-concept influence their performance and participation?

Section-C

Q5. Explain the meaning and definitions of personality. How do various psychologists define personality from different perspectives?

Q6. Describe the stages and characteristics of physical, mental, emotional, and social development during childhood. How do these aspects interact with each other to shape a child's behaviour?

Section-D

Q7. Discuss in detail the main causes of poor performance in sports in India. How do lack of infrastructure, training facilities, and scientific support affect the growth of sports?

Q8. Discuss the role of sports in the process of socialization. How do games and physical activities promote social values, teamwork, discipline, and cooperation among individuals?

PUNJABI VERSION

ਨੋਟ: - ਉਮੀਦਵਾਰਾਂ ਨੂੰ ਪੰਜ ਪ੍ਰਸ਼ਨ ਹੱਲ ਕਰਨੇ ਲਾਜ਼ਮੀ ਹਨ, ਹਰ ਭਾਗ ਵਿੱਚੋਂ ਘੱਟੋ-ਘੱਟ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਜ਼ਰੂਰੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 8 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ - ਏ

ਪ੍ਰਸ਼ਨ 1. ਸਿੱਖਣ ਦਾ ਅਰਥ ਅਤੇ ਮਹੱਤਵ ਸਮਝਾਓ। ਸਿੱਖਣ ਮਨੁੱਖ ਦੇ ਵਿਵਹਾਰ ਅਤੇ ਵਿਅਕਤੀਗਤ ਵਿਕਾਸ 'ਤੇ ਕਿਵੇਂ ਪ੍ਰਭਾਵ ਪੈਂਦਾ ਹੈ?

ਪ੍ਰਸ਼ਨ 2. ਪ੍ਰੇਰਣਾ (Motivation) ਦਾ ਅਰਥ ਅਤੇ ਪਰਿਭਾਸ਼ਾਵਾਂ ਸਮਝਾਓ। ਪ੍ਰੇਰਣਾ ਮਨੁੱਖੀ ਵਿਵਹਾਰ ਅਤੇ ਪ੍ਰਦਰਸ਼ਨ ਲਈ ਕਿਉਂ ਮਹੱਤਵਪੂਰਣ ਹੈ?

ਸੈਕਸ਼ਨ - ਬੀ

ਪ੍ਰਸ਼ਨ 3. ਖੇਡ ਪ੍ਰਦਰਸ਼ਨ 'ਤੇ ਮਨੋਵਿਗਿਆਨਕ ਕਾਰਕਾਂ ਦਾ ਵਿਸਥਾਰ ਨਾਲ ਵੇਰਵਾ ਕਰੋ। ਤਣਾਅ (Stress), ਤਣਾਅ (Tension), ਚਿੰਤਾ (Anxiety) ਅਤੇ ਆਕ੍ਰਮਕਤਾ (Aggression) ਖਿਡਾਰੀਆਂ ਦੀ ਕਾਰਗੁਜ਼ਾਰੀ ਅਤੇ ਨਤੀਜਿਆਂ ਉੱਪਰ ਕਿਵੇਂ ਪ੍ਰਭਾਵ ਪੈਂਦੇ ਹਨ?

ਪ੍ਰਸ਼ਨ 4. ਖੇਡਾਂ ਵਿੱਚ ਭਾਗ ਲੈਣ ਵਾਲੇ ਕਿਸ਼ੋਰ ਅਵਸਥਾ ਦੇ ਵਿਦਿਆਰਥੀਆਂ ਦੀਆਂ ਮਨੋਵਿਗਿਆਨਕ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਸਮਝਾਓ। ਭਾਵਨਾਵਾਂ (Emotions), ਪ੍ਰੇਰਣਾ (Motivation) ਅਤੇ ਸਵੈ-ਧਾਰਨਾ (Self-concept) ਉਨ੍ਹਾਂ ਦੇ ਪ੍ਰਦਰਸ਼ਨ ਅਤੇ ਭਾਗੀਦਾਰੀ ਨੂੰ ਕਿਵੇਂ ਪ੍ਰਭਾਵਿਤ ਕਰਦੇ ਹਨ?

ਸੈਕਸ਼ਨ - ਸੀ

ਪ੍ਰਸ਼ਨ 5. ਵਿਅਕਤੀਤਵ (Personality) ਦਾ ਅਰਥ ਅਤੇ ਪਰਿਭਾਸ਼ਾਵਾਂ ਸਮਝਾਓ। ਵੱਖ-ਵੱਖ ਮਨੋਵਿਗਿਆਨੀ ਵਿਅਕਤੀਤਵ ਨੂੰ ਕਿਹੜੇ ਦ੍ਰਿਸ਼ਟੀਕੋਣ ਤੋਂ ਪਰਿਭਾਸ਼ਿਤ ਕਰਦੇ ਹਨ?

ਪ੍ਰਸ਼ਨ 6. ਬਚਪਨ ਦੌਰਾਨ ਸਰੀਰਕ (Physical), ਮਾਨਸਿਕ (Mental), ਭਾਵਨਾਤਮਕ (Emotional) ਅਤੇ ਸਮਾਜਿਕ ਵਿਕਾਸ (Social Development) ਦੇ ਪੜਾਅ ਅਤੇ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਦਾ ਵਿਸਥਾਰ ਨਾਲ ਵੇਰਵਾ ਕਰੋ। ਇਹ ਸਭ ਇਕੱਠੇ ਮਿਲ ਕੇ ਬੱਚੇ ਦੇ ਵਿਹਾਰ ਨੂੰ ਕਿਵੇਂ ਪ੍ਰਭਾਵਿਤ ਕਰਦੇ ਹਨ?

ਸੈਕਸ਼ਨ - ਡੀ

ਪ੍ਰਸ਼ਨ 7. ਭਾਰਤ ਵਿੱਚ ਖੇਡਾਂ ਦੇ ਕਮਜ਼ੋਰ ਪ੍ਰਦਰਸ਼ਨ ਦੇ ਮੁੱਖ ਕਾਰਨ ਵਿਸਥਾਰ ਨਾਲ ਸਮਝਾਓ। ਢਾਂਚਾਗਤ ਸਹੂਲਤਾਂ (Infrastructure), ਪ੍ਰਸ਼ਿਕਸ਼ਣ ਕੇਂਦਰਾਂ ਅਤੇ ਵਿਗਿਆਨਕ ਸਹਾਇਤਾ ਦੀ ਘਾਟ ਖੇਡਾਂ ਦੇ ਵਿਕਾਸ 'ਤੇ ਕਿਵੇਂ ਅਸਰ ਪੈਂਦਾ ਹੈ?

ਪ੍ਰਸ਼ਨ 8. ਖੇਡਾਂ ਰਾਹੀਂ ਸਮਾਜੀਕਰਨ ਦੀ ਭੂਮਿਕਾ 'ਤੇ ਚਰਚਾ ਕਰੋ। ਖੇਡਾਂ ਅਤੇ ਸਰੀਰਕ ਗਤੀਵਿਧੀਆਂ ਕਿਵੇਂ ਸਮਾਜਿਕ ਮੁੱਲਾਂ, ਟੀਮ ਵਰਕ, ਅਨੁਸ਼ਾਸਨ ਅਤੇ ਸਹਿਯੋਗ ਨੂੰ ਪ੍ਰੇਰਸਾਹਿਤ ਕਰਦੀਆਂ ਹਨ?

HINDI VERSION

ਨੋਟ: - ਹੇਠਾਂ ਦਿੱਤੇ ਪ੍ਰਸ਼ਨਾਂ ਨੂੰ ਹੱਲ ਕਰਨੇ ਹਨ, ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਤੋਂ ਕਮ ਤੋਂ ਕਮ ਇੱਕ ਪ੍ਰਸ਼ਨ ਚੁਣਨਾ ਅਨਿਵਾਰੀ ਹੈ। ਪਾँਚਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੀ ਵੀ ਪ੍ਰਸ਼ਨ ਤੋਂ ਚੁਣਿਆ ਜਾ ਸਕਦਾ ਹੈ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ 8 ਅੰਕਾਂ ਦਾ ਹੈ।

ਖੰਡ - ਐ

ਪ੍ਰਸ਼ਨ 1. ਸੀਖਣੇ ਦਾ ਅਰਥ ਅਤੇ ਮਹੱਤਵ ਸਪੱਸ਼ਟ ਕੀਜ਼ਿਏ। ਸੀਖਣਾ ਮਾਨਵ ਦੇ ਵਰਤਾਰ ਅਤੇ ਵਿਅਕਤਿਕ ਵਿਕਾਸ ਨੂੰ ਕਿਵੇਂ ਪ੍ਰਭਾਵਿਤ ਕਰਦਾ ਹੈ?

प्रश्न 2. प्रेरणा (Motivation) का अर्थ और परिभाषाएँ स्पष्ट कीजिए। प्रेरणा मानव व्यवहार और कार्य प्रदर्शन के लिए क्यों आवश्यक है?

खंड - बी

प्रश्न 3. खेल प्रदर्शन को प्रभावित करने वाले मनोवैज्ञानिक कारकों की व्याख्या कीजिए। तनाव (Stress), तन्पता (Tension), चिंता (Anxiety) और आक्रामकता (Aggression) खिलाड़ी के प्रदर्शन और परिणामों को कैसे प्रभावित करते हैं?

प्रश्न 4. खेलों में भाग लेने वाले किशोरों के मनोवैज्ञानिक गुणों की व्याख्या कीजिए। भावनाएँ (Emotions), प्रेरणा (Motivation) और आत्म-अवधारणा (Self-concept) उनके प्रदर्शन और भागीदारी को कैसे प्रभावित करती हैं?

खंड - सी

प्रश्न 5. व्यक्तित्व (Personality) का अर्थ और परिभाषाएँ स्पष्ट कीजिए। विभिन्न मनोवैज्ञानिक व्यक्तित्व को किस दृष्टिकोण से परिभाषित करते हैं?

प्रश्न 6. बचपन के दौरान शारीरिक (Physical), मानसिक (Mental), भावनात्मक (Emotional) और सामाजिक विकास (Social Development) के चरणों और विशेषताओं का वर्णन कीजिए। ये सभी पहलू मिलकर बच्चे के व्यवहार को कैसे प्रभावित करते हैं?

खंड - डी

प्रश्न 7. भारत में खेलों के कमजोर प्रदर्शन के प्रमुख कारणों की विस्तार से व्याख्या कीजिए। आधारभूत संरचना (Infrastructure), प्रशिक्षण सुविधाओं और वैज्ञानिक सहयोग की कमी खेलों के विकास को कैसे प्रभावित करती है?

प्रश्न 8. खेलों के माध्यम से सामाजीकरण की भूमिका पर चर्चा कीजिए। खेल और शारीरिक गतिविधियाँ सामाजिक मूल्यों, टीम भावना, अनुशासन और सहयोग को कैसे बढ़ावा देती हैं?

Exam Code: 121203
(40)

Paper Code: 3113

Programme: Bachelor of Arts
Semester-III

Course Title: Psychology (Biological Basis of Behaviour)

Course Code: BARM-3443

Time Allowed: 3 Hours

Max Marks: 50

Note:- Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section. Each question carries 10 marks

Note: The use of Non-Programmable calculators and Statistical Tables are allowed in the examination.

Section A

1. What is synapse? Explain the transmission of nerve impulse across synapse with the help of diagram. Name the different chemical involved in the process. 10
2. Write in detail about the 'All or none law'. 10

Section B

3. Describe the role of nervous system and endocrine glands in human body. 10

4. Discuss Midbrain and its different parts. 10

Section C

5. Write about the structure and function of Auditory system. 10
6. Explain touch sensations. Write about the sensation of pain in details. 10

Section D

7. What is NPC? Write about the features of NPC? 10
8. Given a distribution of scores with a mean of 20 and σ of 5. If we assume normality What limits will include the middle 75% of cases. 10

(For Reappear Candidates (Old Syllabus 2024-25))

Exam Code: 121203

Paper Code: 9309

Programme: Bachelor of Arts (Semester-III)

Course Title: Sanskrit (Elective) (Natak Tatha Vyakarana)

Course Code: BARM-3466

Time Allowed: 3 Hours

Max Marks: 60

नोट:— प्रश्न पत्र का माध्यम हिन्दी है। प्रश्नों के उत्तर संस्कृत, हिंदी, पंजाबी, अंग्रेजी में से किसी भी भाषा में दिए जा सकते हैं। प्रश्न पत्र में कुल चार सैक्शन हैं— ए, बी, सी, एवं डी। छात्र चारों सैक्शन से एक-एक प्रश्न करेंगे तथा किसी एक सैक्शन से दो प्रश्न करने अनिवार्य हैं। कुल पाँच प्रश्न करने अनिवार्य हैं। सभी प्रश्नों के अंक चौदह 12 समान हैं।

Section-A

1. निम्नलिखित पद्यां की व्याख्या कीजिए—

- क. पत्या चारित्रशालिन्या द्विपुत्रां मोक्षमिच्छसि।
बलाबलं परिज्ञाय पुत्रमेकं विसर्जय ॥
- ख. कृतकृत्यं शरीरं में परिणामेन जर्जरम्।
राक्षसाग्रौ सुतापेक्षी होष्यामि विधिसंस्कृतम् ॥
- ग. आपदं हि पिता प्राप्तो ज्येष्ठपुत्रेण तार्यते।
ततोऽहमेव यास्यामि गुरुणाः प्राणरक्षणात् ॥
- घ. धन्योऽस्मि यद् गुरुप्राणाः स्वैः प्राणैः परिरक्षिताः।
बन्धुस्त्रेहाद्धि महतः कायस्त्रेहस्तु दुर्लभः ॥ २० ॥

12

2. निम्नलिखित पद्यां की व्याख्या कीजिए—

- क. मध्यमः पञ्चभूतानां पार्थिवानां च मध्यमः।
भवे च मध्यमो लोके सर्वकार्येषु मध्यमः ॥
- ख. मुच्यतामिति विस्त्रब्धं ब्रवीति यदि में पिता।
न मुच्यते तथा होष गृहीतो मातुराज्ञया ॥
- ग. माता किल मनुष्याणां देवतानां च दैवतम्।
मातुराज्ञां पुरस्कृत्य वयमेतां दशां गताः ॥
- घ. काञ्चनस्तम्भसदृशो रिपूणां निग्रहे रतः।
अयं तु दक्षिणो बाहुरायुधं सहजं मम ॥ ४२ ॥

12

Section-B

3. मध्यमव्यायोग की दो सूक्तियों की सप्रसङ्ग व्याख्या कीजिए—

क. अयं तु दक्षिणो बाहुरायुधं सहजं मम ॥

6

ख. माता किल मनुष्याणां देवतानां च दैवतम्।

6

4. निम्नलिखित प्रश्नों के उत्तर दीजिए—

क. "मध्यमव्यायोग" संस्कृत नाटक का सार महाकवि भास का परिचय देते हुए लिखिए। 6

ख. "मध्यमव्यायोग" संस्कृत के नाटकों के भीम पात्र का चरित्र-चित्रण लिखिए। 6

Section-C

5. निम्नलिखित धातुओं के लट् एवं लोट् लकारों में रूप लिखिए—

1. नम्
2. सिच्
3. कृ
4. कथ्

12

6. क. निम्नलिखित पदों में सन्धि अथवा सन्धि-विच्छेद कीजिए—

1. चन्द्रस् + शोभते
2. मनश्शुद्धिः
3. सद् + जनः
4. वागीशः
5. चित् + आनन्दः
6. दिग्गजः
7. गुरुं + नमति

6

ख. निर्धारित छन्दों में से दो का लक्षण एवम् उदहारण समन्वय सहित लिखिए—

1. मालिनी
2. विद्युन्माला
3. उपेन्द्रवज्रा
4. अनुष्टुप्

6

Section-D

7. निम्नलिखित चार धातुओं के लङ्, विधिलङ् एवं लृट् लकारों में रूप लिखिए—

1. चुर्
2. अस्
3. तुद्
4. पा

12

8. निम्नलिखित प्रत्ययों के साथ निर्दिष्ट प्रत्यय लगाकर उनके तद्धितान्त प्रत्यय लिखिए— मूलधातु + प्रत्यय — नवीन शब्द

1. शुक्ल + त्व
2. मातृ + तल्
3. हिरण्य + मयट्
4. दक्ष + तरप्
5. विद्वस् + तमप्
6. नर + त्व
7. नम्र + तल्

12

Exam Code: 509503

Paper Code: 3241

Programme: Bachelor of Business Administration (Airlines and
Airport Management)

Semester: III

Course Title: Basics of Statistics

Course code: BBML- 3711 ✓

Time: 3 Hours

Max. Marks: 70

Note: Attempt five questions in all, selecting at least one from each section. The fifth question may be attempted from any section. Each question carries 14 marks.

Section-A

1. Define statistics. Discuss the scope and importance of statistics in detail.
2. Differentiate between census and sampling methods. What are the different sampling methods? Explain.

Section-B

3. Discuss the various methods of data presentation. Evaluate the advantages and disadvantages of each method.
4. (a) What are the requisites of a good table? Explain
(b) Draw a suitable diagram to represent the following information

Plans	I	II	III	IV	V	VI	VII
Deficit financing (Rs. in crore)	550	950	1133	3750	2780	5000	14000

Section-C

5. a) Calculate the mode using the grouping method:

Weight (In kg.)	93-97	98-102	103-107	108-112	113-117	118-122	123-127	128-132
Frequency	3	5	12	17	14	6	3	1

b) Explain the merits of the median.

6. Calculate the mean deviation from the mean and the median from the following data

Income	40-50	50-60	60-70	70-80	80-90	90-100
No. of workers	5	10	20	25	15	5

Section-D

7. What is skewness? How does it differ from dispersion? What are the most commonly used measures of skewness?

8. Calculate Laspeyre's and Fisher's Ideal price index numbers from the following data:

Items	2010		2022	
	Price (Rs.)	Quantity (Kg)	Price (Rs.)	Quantity (Kg)
A	8	6	12	4
B	10	8	12	8
C	14	4	18	4
D	4	6	2	10
E	16	10	14	8

Exam Code: 509503
(30)

Paper Code: 3243

**Programme: Bachelor of Business Administration Airlines
and Airport Management)**
Semester-III

Course Title: Aviation Geography

Course Code: BBML-3713 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note:- Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any section. Each question carries 14 marks.

Section - A

1. Explain Coordinated Universal Time (UTC) and its role in flight scheduling. Show with an example how to calculate the time difference between two zones.
2. Discuss the impact of monsoon weather on flight operations in India with three points.

Section - B

3. Describe the role of geography in the development of Delhi and Mumbai airports under the UDAN scheme.
4. Analyze two geographical determinants of the North Atlantic air traffic corridor.

Section - C

5. Explain how economic centers and tourism destinations influence airline network design with three examples.
6. Define IATA airport codes. State their importance in global aviation communication with two benefits.

Section - D

7. Describe the use of GPS and GIS in optimizing flight paths. Give two practical benefits.
8. Explain the impact of volcanic ash clouds on aviation. State two safety measures taken by airlines.

Exam Code: 509503

Paper Code: 3244

**Programme: Bachelor of Business Administration (Airlines and
Airport Management)**

Semester: III

Course Title: Air Ticketing and Fare Constrictions

Course code: BBML-3714

Time: 3 Hours

Max. Marks: 70

Note: Attempt five questions in all, selecting at least one from each section. The fifth question may be attempted from any section. Each question carries 14 marks.

Section A

- Q1) What are the key details found on an air ticket?
- Q2) Explain the role of IATA in air ticketing.

Section B

- Q3) What is the difference between published fares and promotional fares?
- Q4) How is currency conversion handled in international ticketing?

Section C

- Q5) What does PNR stand for and what is its importance?
- Q6) Explain the meaning of advance purchase and stopover restrictions in ticketing.

Section D

- Q7) Describe how ticket cancellations and refunds are processed.
- Q8) What are some emerging trends in electronic ticketing?

Exam Code: 509503
(30)

Paper Code: 3245

**Programme: Bachelor of Business Administration (Airlines
and Airport Management)**
Semester-III

**Course Title: Airport Ground Handling
Operations**

Course Code: BBML-3715 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note:- Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any section. Each question carries 14 marks.

Section - A

1. Explain the role of ground handling agencies and other stakeholders (airlines, airport authorities, regulators) in airport operations.
2. Describe the functions of passenger, ramp, and cargo handling in ensuring smooth airline operations.

Section – B

3. Discuss the procedures involved in baggage handling, including sorting, loading, unloading, and managing lost luggage.

4. Explain the process of aircraft handling, including marshalling, towing, pushback, refuelling, and catering.

Section – C

5. What are the security procedures involved in ground handling operations? Explain passenger screening and handling of sensitive cargo.
6. Discuss the importance of environmental and legal compliance in ground handling. How can sustainability be achieved at airports?

Section – D

7. Explain the process of load reporting and aircraft loading. Why is maintaining weight and balance essential for flight safety?
8. Discuss the major challenges faced by ground handling operations after the COVID-19 pandemic and suggest possible solutions.

Exam Code: 509503

Paper Code: 3246

Programme: Bachelor of Business Administration (Airlines and
Airport Management) Semester III

Course Title: Food and Beverage Services

Course code: BBMM-3716

Time: 3 Hours

Max. Marks: 20

Note: Attempt five questions in all, selecting at least one from each section. The fifth question may be attempted from any section. Each question carries 4 marks.

SECTION - A

1. Write a detailed note on history of food service industry.
2. Describe: (a) Welfare Catering
(b) Structure of Catering Industry

SECTION - B

3. Discuss in detail the organisation of F&B department in hotel.
4. What are the duties and responsibilities of F&B staff? Explain.

SECTION - C

5. Describe: (a) Grill Room
(b) Cafeteria
6. Explain: (a) Linen and its types
(b) Tableware

SECTION - D

7. What do you understand by
(a) Nourishing Beverages
(b) Refreshing Beverages
8. Write a detailed note on coffee and its origin.

Exam Code: 121703
(70)

Paper Code: 3237

Programme: Bachelor of Business Administration
Semester-III

Course Title: Statistics for Business

Course Code: BBRL-3173 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note:- Attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 14 marks. Use of simple calculator is allowed.

Section-A

1. ✓ Solve the following equations by Cramer's Rule.

$$x + 2y + 3z = 6$$

$$2x + 4y + z = 7$$

$$3x + 3y + 9z = 15$$

14

2. Explain the various methods of sampling.

14

Section-B

3. An Incomplete distribution of families according to their expenditure per week is given below. The median and mode for the distribution are Rs.25 and Rs.24 respectively. Calculate the missing frequencies:

Expenditure:	0-10	10-20	20-30	30-40	40-50
No. of families:	14	?	27	?	15

14

4. Two samples of size 100 and 150 respectively have means 50 and 60 and standard deviation 5 and 6. Find the mean and standard deviation of the combined sample of size 250.

14

Section-C

5. Fit a Straight line trend by the method of least square. Also find an estimate for the year 2006.

Year	2000	2001	2002	2003	2004	2005
Sales (Rs. Lakh)	28	32	29	35	40	50

14

6. Explain the Properties of correlation and regression coefficients. 14

Section-D

7. From the Following data, construct a price index number by using Fisher's Ideal Formula:

Commodity	Base Year		Current Year	
	Price per unit	Expenditure (Rs.)	Price per unit	Expenditure (Rs.)
A	2	40	5	75
B	4	16	8	40
C	1	10	2	24
D	5	25	10	60

14

8. There are three machines A,B and C in a factory. Their daily outputs are in the ration of 2:3:1. Past Experience shows that 2%, 4% and 5% of the items produced by A,B and C respectively are defective. If an item selected at random is found to be defective. Find the probability that it was produced by A or B. 14

Exam Code: 121703

Paper Code: 9337

Programme: Bachelor of Business Administration
Semester-III

Course Title: Statistics for Business

Course Code: BBRL-3173

Time Allowed: 3 Hours

Max Marks: 80

Note:- Attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 16 marks. Use of simple calculator is allowed.

Section-A

1. Solve the following equations by Cramer's Rule.

$$x + 2y + 3z = 6$$

$$2x + 4y + z = 7$$

$$3x + 3y + 9z = 15$$

16

2. Explain the various methods of sampling.

16

Section-B

3. An Incomplete distribution of families according to their expenditure per week is given below. The median and mode for the distribution are Rs.25 and Rs.24 respectively. Calculate the missing frequencies:

Expenditure:	0-10	10-20	20-30	30-40	40-50
No. of families:	14	?	27	?	15

16

4. Two samples of size 100 and 150 respectively have means 50 and 60 and standard deviation 5 and 6. Find the mean and standard deviation of the combined sample of size 250.

16

Section-C

5. Fit a Straight line trend by the method of least square. Also find an estimate for the year 2006.

Year	2000	2001	2002	2003	2004	2005
Sales (Rs. Lakh)	28	32	29	35	40	50

16

6. Explain the Properties of correlation and regression coefficients. 16

Section-D

7. From the Following data, construct a price index number by using Fisher's Ideal Formula:

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	Price per unit	Expenditure (Rs.)	Price per unit	Expenditure (Rs.)
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16

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Programme	Course Code	Exam Code	Paper Code
Bachelor of Business Administration	BBRL-3324	121703	3238
Bachelor of Business Administration (Airlines and Airport Management)	BBML-3712	509503	3242

Semester: III**Course Title: Fundamentals of Human Resource Management****Time: 3 Hours****Max. Marks: 70**

Note: Attempt five questions in all, selecting at least one from each section. The fifth question may be attempted from any section. Each question carries 14 marks.

SECTION-A

1. Define HRM. Explain its objectives and importance in modern organizations. (14)
2. Define Human Resource Planning. Discuss the factors affecting Human Resource Planning. (14)

SECTION-B

3. Define job analysis and explain its objectives and importance in HRM. (14)
4. What is recruitment? Explain in detail the internal and external sources of recruitment. (14)

SECTION-C

5. Define performance appraisal and explain its objectives and importance. (14)
6. Explain in detail on-the-job training and off-the-job training methods with examples. (14)

SECTION-D

7. Define job evaluation. Explain its objectives and process in detail. (14)
8. Define remuneration. Explain in detail the various factors influencing employee remuneration in an organization. (14)

Exam Code: 121703
(70)

Paper Code: 3239

Programme: Bachelor of Business Administration
Semester-III

Course Title: Management Accounting

Course Code: BBRL-3325

Time Allowed: 3 Hours

Max Marks: 70

NOTE: Attempt five questions selecting at least one question from each section. The Fifth question may be attempted from any section. Each question carries 14 marks.

SECTION-A

1. What are the limitations of Financial Accounting and point out how Management Accounting helps in overcoming them? (14)
2. Briefly explain the Accounting Concepts and Conventions. (14)

SECTION-B

3. The Balance Sheet of Punjab Auto Limited as on 31-12-2002 was as follows:

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
Equity Share Capital	40,000	Plant and Machinery	24,000
Capital Reserve	8,000	Land and Buildings	40,000
8% Loan on Mortgage	32,000	Furniture & Fixtures	16,000
Creditors	16,000	Stock	12,000
Bank overdraft	4,000	Debtors	12,000
Taxation:		Investments (Short-term)	4,000
Current	4,000	Cash in hand	12,000
Future	4,000		
Profit and Loss A/c	12,000		
Total	1,20,000	Total	1,20,000

From the above, compute

- (a) Current Ratio
 - (b) Quick Ratio
 - (c) Debt-Equity Ratio
 - (d) Proprietary Ratio (14)
4. Explain Financial Statement Analysis, its advantages and also state the different parties interested in financial statement analysis. (14)

SECTION-C

5. What is Responsibility Accounting? Explain different types of Responsibility Accounting? (14)

6. Following is the cash flow abstract of Alpha Ltd for the year ended 31st March 2025. Prepare Cash Flow Statement.

Inflows	Amount (Rs.)	Outflow	Amount (Rs.)
Opening balance		Payment for Account payables	90,000
Cash	10,000	Salaries and Wages	25,000
Bank	70,000	Payment of Overheads	15,000
Share Capital-Shares issued	5,00,000	Property ,Plant and Equipments Acquired	4,00,000
Collection on account of trade receivables	3,50,000	Debentures redeemed	50,000
Sale of property, plant and equipments	70,000	Bank Loan Repaid	2,50,000
		Taxation	55,000
		Dividends	1,00,000
		Closing Balance	
		Cash	5,000
		Bank	10,000
TOTAL	10,00,000		10,00,000

(14)

SECTION-D

7. What do you mean by Management Reporting? State the requirements of good reporting system?
(14)
8. What do you mean by Working Capital Management? Explain the advantages and disadvantages of working capital management.
(14)

Exam Code: 121703
(70)

Paper Code: 3240

Programme: Bachelor of Business Administration
Semester-III

Course Title: Computer Based Accounting System

Course Code: BBRM-3090

Time Allowed: 3 Hours

Max Marks: 50

Note:- Attempt Five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question will carries 10 marks.

SECTION -A

1. What is Computerized Accounting? Explain its need and advantages.
2. Explain in detail the procedure for the creation of a company, groups, and accounts.

SECTION- B

3. Explain how Tally can be used to manage receivables and facilitate receivables discounting transactions. Discuss the key features and accounting treatments involved.
4. Explain the ER models in detail.

SECTION -C

5. Explain the database design for accounting, storing and maintaining transaction data.
6. What is Tally ERP 9.0? Explain its features.

SECTION -D

7. Write a note on accounting masters and accounting reports. Also give five differences.
8. Compile a balance sheet of a firm with a practical example.

(For Reappear Candidates (Old syllabus (2024-25))

Exam Code: 120603

Paper Code: 9326

Bachelor of Science (Bio-Technology) Semester-III

Course Title: Immunology-I

Course Code: BBTL-3062

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question can be attempted from any Section. Each question carries 12 marks.

Section-A

1. Explain and differentiate active and passive immunization.
2. Describe the main characteristics of adaptive immune response and explain its role in immune defense.

Section-B

3. What are secondary lymphoid organs. Discuss the structure and function of lymph node as a major lymphoid organ.
4. What is lymphocyte trafficking and explain its significance in immune surveillance.

Section-C

5. Describe the structure, classes, and biological functions of immunoglobulins.
6. Explain the antigen-antibody interactions and their applications in immunodiagnostic techniques.

Section-D

7. Write short notes on the organization and inheritance of the MHC complex.
8. Discuss the regulation of MHC expression and its association with disease susceptibility.

(For Reappear Candidates Only (Session 2024-25))

Exam Code: 120603

Paper Code: 9327

Bachelor of Science (Bio-Technology) Semester-III

Course Title: Molecular Biology

Course Code: BBTL-3066

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question can be attempted from any Section. Each question carries 12 marks.

Section-A

1. Compare DNA replication in prokaryotes and eukaryotes, highlighting key similarities and differences.
2. Discuss the various enzymes and proteins involved in DNA replication in eukaryotic cells.

Section-B

3. What are transposable elements. Discuss the structure, types, and transposition mechanisms of bacterial insertion elements.
4. Compare and contrast homologous recombination and site-specific recombination.

Section-C

5. Explain mechanism of transcription initiation in prokaryotes.
6. Write a short note on eukaryotic transcription process in eukaryotes.

Section-D

7. Describe and compare the mechanism of translation in prokaryotes and eukaryotes.
8. Explain the operon concept in prokaryotes, with detailed reference to the structure and functioning of the Trp operon in the presence and absence of tryptophan.

(For Reappear Candidates Only (Session 2024-25))

Exam Code: 120603

Paper Code: 9325

Programme: Bachelor of Science (Biotechnology) (Semester-III)

Course Title: Botany II

Course Code: BBTL-3074 ✓

Time Allowed: 3 Hour

Max Marks: 40

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 8 marks. Draw labelled diagrams wherever necessary.

Section-A

- 1 Write a short note on: - 4+4
 - a. Water Potential
 - b. Heat shock proteins
- 2 Describe the adaptations with respect to salt and cold stress in plants. 8

Section-B

- 3 Describe the Mechanism of Electron transport chain. 8
- 4 Discuss the following: 4+4
 - a. Photoprotective mechanisms
 - b. C₃ Cycle

Section-C

- 5 Discuss disease resistance mechanisms in plants. 8
- 6 Write down the causal agent, symptoms, life cycle and control measures of Black stem rust of wheat. 8

Section-D

- 7 Discuss following: 6+2
 - a. Population growth curves
 - b. Niche
- 8 Discuss biogeographical zones of India. 8

For Reappear Candidates Only (Session – 2024-25)

Exam Code: 120603

Paper Code: 9324

Programme: Bachelor of Science (Bio-Technology)

Semester: III

Course Code: BBTL-3083

Course Title: Chemistry –II

Time Allowed: 3 Hours

Max Marks: 40

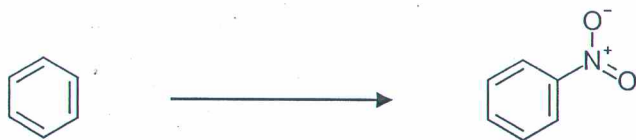
Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 08 marks.

Section A

- Q1. (a) Using resonance give reason why phenols are stronger acid than alcohol. (4)
 (b) Differentiate between singlet and triplet carbene. Explain why triplet carbenes are more stable than singlet carbenes. (4)
- Q2. (a) What is hydrogen bonding. Discuss its types. Explain the effect of hydrogen bonding on the water solubility's. (4)
 (b) Account for the unusual stability of cyclopentadienyl anion. (4)

Section B

- Q3. (a) Using suitable mechanism, name the following transformation, also mention the electrophile generated. (4)

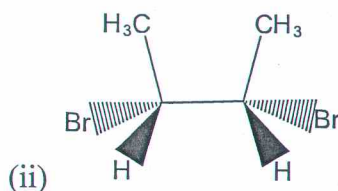
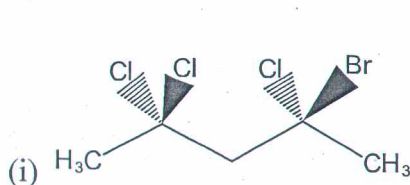


- (b) Compare the relative reactivity of benzene, toluene and chlorobenzene towards electrophilic substitution with the help of energy profile diagram. (4)

- Q4. (a) Give mechanism of sulphonation of benzene. (4)
 (b) What are σ and π complexes and discuss their importance in aromatic electrophilic substitution reactions. Support your explanation with an energy profile diagram. (4)

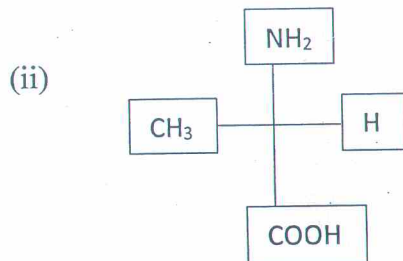
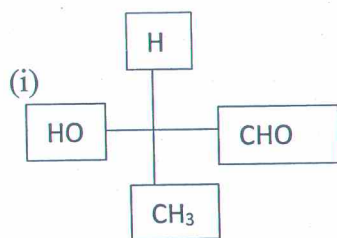
Section C

- Q5. (a) What is resolution. Discuss in detail several methods to resolve racemic mixture. (4)
 (b) Identify the chiral center in the following compounds (4)



Q6. (a) Draw potential energy diagrams for various conformations of n-butane and discuss their relative stabilities. (4)

(b) Assign (R) and (S) designation to each of the following compounds. (4)



Section D

Q7. (a) Discuss the factors that affect S_N¹ and S_N² reactions. (4)

(b) Nucleophilic substitution and elimination often compete. What factors determine whether substitution (S_N¹ or S_N²) or elimination (E1 or E2) will dominate? (4)

Q8. (a) Differentiate between S_N¹ and S_N² reactions. (4)

(b) Explain with the help of suitable examples that S_N² reactions of alkyl halide accompanied by inversion of configuration. (4)

Exam Code: 120603

Paper Code: 3178

Programme: Bachelor of Science (Bio-Technology)

Semester: III

Course Title: Gene Structure and Function

Course Code: BBTM-3061

Time Allowed: 3 Hours

Max. Marks: 50

Note: Candidates are required to attempt 5 questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 10 marks.

Section-A

1. Discuss the general structure of DNA. Write a short note on different forms of DNA.
2. Briefly discuss genome size and genome complexity. Explain the various factors affecting them.

Section-B

3. What are transposable elements? Briefly discuss their biological significance and applications.
4. Explain the structure and transposition mechanisms of composite and non-composite transposons.

Section-C

5. Explain the concept of gene regulation in prokaryotes. Describe positive and negative gene regulation mechanisms.
6. Describe the structure of the lac operon. How does it function in the presence and absence of lactose?

Section-D

7. Describe the major outcomes and achievements of the Human Genome Project.
8. What are DNA repair genes? Explain how these genes help in preventing cancer.

Exam Code: 120603

Paper Code: 3181

Programme: Bachelor of Science (Bio-Technology) Semester: III

Course Title: Immunology-I

Course Code: BBTM-3064 ✓

Time Allowed: 3 Hours

Max. Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 10 marks.

Section - A

Q1) Differentiate Innate and Adaptive Immune Response. Discuss various mechanisms of innate immune response.

Q2) Differentiate active and passive immunity. Explain Acquired Immunity.

Section - B

Q3) What are central lymphoid organs. Explain the morphology and role of thymus.

Q4) Discuss

a) Monocytes

b) Mucosal associated lymphoid tissue.

Section - C

Q5) Describe structure of antibody molecule. Give a comparative account of immunoglobulin classes.

Q6) Describe antigen-antibody interaction. Describe antibody affinity and antibody avidity.

Section - D

Q7) Discuss T-dependent and T-Independent antigens. Draw a well labeled diagram of T-Cell antigen receptor and explain its role.

Q8) Write an explanatory note on Major Histocompatibility Complex and describe its role.

Exam Code: 107403

Paper Code: 9323

Programme: Bachelor of Science (Bio-Technology) Semester: III

Course Title: Chemistry –II

Course Code: BBTM-3083

Time Allowed: 3 Hours

Max Marks: 30

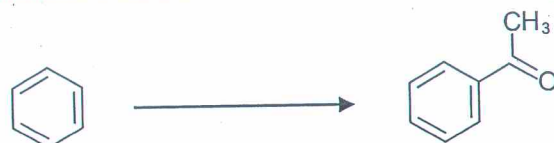
Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 06 marks.

Section-A

- Q1. (a) what are carbanions. Discuss their planar and pyramidal structure. (3)
(b) Account for unusual stability of cyclopentadienyl anion. (3)
- Q2. (a) Differentiate between Resonance and Inductive effect. (3)
(b) Calculate the formal charge for all the resonance structures of methyl carbocation. (3)

Section-B

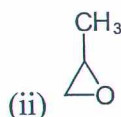
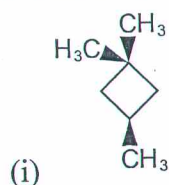
- Q3. (a) Using Friedal-Crafts reaction, sketch the following transformation. (3)



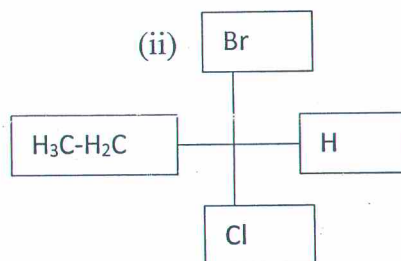
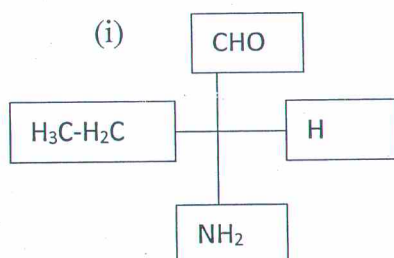
- (b) What are σ and π complexes? Illustrate their role in aromatic electrophilic substitution reactions with the help of an energy profile diagram. (3)
- Q4. (a) Methyl group attached to benzene ring has no lone pair of electrons but is still ortho, para-directing in nature. Explain why? (3)
(b) Explain the mechanism of sulphonation of benzene. (3)

Section-C

- Q5. (a) Distinguish between enantiomer and diastereomer with suitable example. (3)
(b) Identify the chiral center in the following compounds (3)



- Q6. (a) Draw potential energy diagrams for various conformations of n-ethane and discuss their relative stabilities. (3)
(b) Assign (R) and (S) designation to each of the following compounds. (3)



Section-D

- Q7. (a) Justify that S_N1 reactions proceed by retention of configuration. (3)
(b) How does carbocation stability affect the rate of S_N1 reactions? Arrange the following in increasing order of S_N1 reactivity: methyl, primary, secondary, and tertiary alkyl halides. (3)
- Q8. (a) What are carbocation rearrangements in S_N1 reactions? Provide an example where a hydride or methyl shift occurs. (3)
(b) Distinguish between S_N1 and S_N2 reactions. (3)

Exam Code: 120603

Paper Code: 3182

Programme: Bachelor of Science (Bio-technology)

Semester - III

Course Title: Chemistry-I

Course Code: BBTM-3085

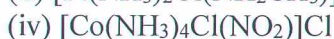
Examination Time: 03 Hours

Max. Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

Section-A

Q.1. (a) Using IUPAC norms write the systematic names of the following:



(4)

(b) Draw all the isomers (geometrical and optical) of:



(6)

Q.2. (a) Discuss postulates of Werner's coordination theory. (5)

(b) Write a short note on compounds having coordination number 6. (5)

Section-B

Q.3. (a) Explain on the basis of valence bond theory that $[\text{Ni}(\text{CN})_4]^{2-}$ ion with square planar structure is diamagnetic and $[\text{NiCl}_4]^{2-}$ ion with tetrahedral geometry and paramagnetic. (4)

(b) Explain $[\text{Co}(\text{NH}_3)_6]^{3+}$ is an inner orbital complex whereas $[\text{Ni}(\text{NH}_3)_6]^{2+}$ is an outer orbital complex. (3)

(c) Explain the geometry of $[\text{Cu}(\text{NH}_3)_4]^{2+}$ on the basis of valence bond theory. (3)

- Q.4. (a) $[\text{NiCl}_4]^{2-}$ is paramagnetic while $[\text{Ni}(\text{CO})_4]$ is diamagnetic although both are tetrahedral. Explain. (3)
- (b) $[\text{Fe}(\text{H}_2\text{O})_6]^{3+}$ is strongly paramagnetic whereas $[\text{Fe}(\text{CN})_6]^{3-}$ is weakly paramagnetic. Explain. (3)
- (c) What are the main postulates of valence bond theory? (4)

Section-C

- Q.5. (a) Discuss thermodynamic stability of a complex, derive relationship between the stepwise and cumulative stability constant. (5)
- (b) What is chelate effect? Discuss how the stability of the complex vary with the size and number of chelate rings. (5)
- Q.6. (a) What are the major factors that affect the stability of coordination complex? (4)
- (b) Discuss macro cyclic effect. (3)
- (c) Write a note on crown ether highlighting their applications. (3)

Section-D

- Q.7. (a) Define crystal field stabilization energy. (2)
- (b) Calculate Δ_o for
- | | |
|-----------------------------|--|
| (i) $[\text{CoF}_6]^{3-}$ | (ii) $[\text{Co}(\text{CN})_6]^{3-}$ |
| (iii) $[\text{FeF}_6]^{3-}$ | (iv) $[\text{Cr}(\text{NH}_3)_6]^{3+}$ |
- (4)
- (c) Discuss crystal field splitting in octahedral, distorted octahedral (tetragonal). (4)
- Q.8. (a) How colours of complexes can be explained on the basis of crystal field splitting? (3)
- (b) How ground state term symbol can be calculated for d^2 configuration using Russel-Saunders coupling scheme. (7)

Exam Code: 120603

Paper Code: 3179

Programme: Bachelor of Science (Bio-Technology) Semester: III

Course Title: Biomathematics and Biostatistics

Course Code: BBTM-3332

Time Allowed: 3 Hours

Max. Marks: 50

Note: Candidates are required to attempt 5 questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 10 marks. Students are allowed to use Non- Scientific/Non-Programmable Calculator and Statistical/Logarithmic tables.

Section-A

1. (a) (i) What is the importance of significant digits. Round off 0.07039 to two significant figures. (2.5)

(ii) Convert 0.00094 in to scientific notation using scientific notation formula (2.5)

(b) If $y = \sqrt{x + \sqrt{x + \sqrt{x + \dots \infty}}}$, show that $(2y - 1) \frac{dy}{dx} = 1$. (5)

2. (a) Integrate $\int \sqrt{1 + \sin 2x} \, dx$ w.r.t. x (5)

(b) Solve: $3^{x-1} + 3^{x+2} = 28$ (5)

Section-B

3. (a) Find the Harmonic Mean from the following data: (5)

Class Interval:	0-10	10-20	20-30	30-40	40-50	50-60
Frequency:	10	15	75	49	81	110

(b) Calculate Coefficient of Mean Deviation of the following data from mean: (5)

Size:	4	6	8	10	12	14	16
Frequency:	2	1	3	6	4	3	1

4. (a) Find the skewness by using Karl Pearson's method for the following frequency distribution: (5)

Marks	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90-100
No. of Students	10	16	18	25	20	4	4	3

- (b) If the geometric mean of a set of a number $X_1, X_2, X_3, \dots, X_n$ is denoted as μ_g , then prove that the geometric standard deviation is

$$\sigma_g = \exp \sqrt{\frac{1}{n} \sum_{i=1}^n \left(\log \frac{X_i}{\mu_g} \right)^2} \quad (5)$$

Section-C

5. (a) Fit regression equation Y on X and estimate Y when $X=12$ (5)

X:	6	2	10	4	8
Y:	9	11	5	8	7

- (b) The ranking of ten students in two subjects A and B are as follows:

A	3	5	8	4	7	10	2	1	6	9
B	6	4	9	8	1	2	3	10	5	7

What is the coefficient of rank correlation? (5)

6. (a) If on an average 8 ships out of 10 arrive safely to ports, obtain mean and standard deviation of number of ship returning safely out of total of 150 ships. (5)

- (b) Explain the main properties and characteristics of a normal distribution. (5)

Section-D

7. (a) Two types of drugs were used to control the high blood pressures on 6 and 8 patients and decrease in systolic blood pressures (upper limit of B.P.) are as below:

Drug A:	12	18	30	15	07	14		
Drug B:	15	16	12	10	19	25	28	17

Is there any significant difference in the mean efficiency of drugs at 5% level of significance? (5)

(b) In an experiment on pea breeding the following frequency of seeds were obtained:

Rounded Yellow	Wrinkled and Yellow	Rounded and Green	Wrinkled and Green	Total
315	101	108	32	556

Theory predicts that the frequencies should be in proportion 9: 3 : 3 : 1. Examine the correspondence between theory and experiment. (5)

8. (a) Define Type-I, Type-II Error and Level of Significance. (2)

(b) A study was conducted and number of days of recovering a fractured bone were noted for 15 patients having different physical fitness:

Physical Fitness	Number of days of recovery					
Poor	60	55	52	53		
Average	55	45	49	46	48	50
Good	40	44	46	41	50	

Using One Way ANOVA, test the claim that prior physical fitness has an influence on the time period of recovering from a fractured bone. (8)

Exam Code: 120603

Paper Code: 3180

Programme: Bachelor of Science (Bio-Technology) Semester: III

Course Title: Zoology-I

Course Code: BBTM-3483

Time Allowed: 3 Hours

Max. Marks: 50

Note: Candidates are required to attempt 5 questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 10 marks. Draw diagrams wherever required.

Section-A

1. Discuss the major criteria used in animal classification with suitable examples. 10
2. Discuss the salient features of class Aves and Amphibia. 10

Section-B

3. Describe the process of digestion and absorption of nutrients in man. 10
4. Explain the oxygen dissociation curve and Bohr Effect. 10

Section-C

5. Explain the origin and regulation of the heartbeat and the significance of the electrocardiogram (ECG). 10
6. Elaborate the role of hormones in maintaining water balance. 10

Section-D

7. (a) Describe the structure of a synapse and explain nerve impulse transmission at synaptic cleft.
(b) Draw a well labelled diagram of skeletal muscle. (5+5=10)
8. Discuss in detail the hormonal control of the pituitary and thyroid glands in human physiology. 10

Exam Code: 117903

Paper Code: 3259 – R

Programme: Bachelor of Computer Applications

Semester – III

Course Title: Advanced Database Management System

Course Code: BCAL-3111 ✓

Time Allowed: 3 Hours

Maximum Marks: 70

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

SECTION – A

- Q1.** Explain different types of joins in SQL and illustrate how subqueries, UNION, INTERSECT, and MINUS operations are used in complex database queries.
- Q2.** What is transaction management in DBMS? Discuss ACID properties and concurrency control mechanisms with examples.

SECTION – B

- Q3.** Discuss the structure and advantages of PL/SQL. Write and explain a PL/SQL program that demonstrates the use of variables, control statements, and exception handling.
- Q4.** Define Big Data. Explain its characteristics, benefits, and the significance of the CAP Theorem in distributed database systems.

SECTION – C

- Q5.** Explain the concept of NoSQL databases. Compare structured and unstructured data, and describe ACID versus BASE properties in detail.
- Q6.** What is MongoDB? Describe the process of creating a database and performing CRUD operations in MongoDB with suitable syntax and examples.

SECTION – D

- Q7.** Explain how SQL operations are mapped to MongoDB queries. Discuss projection, sorting, limiting, and counting records with examples.
- Q8.** Describe the MongoDB aggregation framework in detail. Explain the concepts of replication, sharding, and MapReduce, and their importance in data management.

Paper Code: 3259

Programme	Exam Code	Course Code
Bachelor of Computer Applications	117903	BCAL-3111 ✓
Bachelor of Science (Information Technology)	118003	BITL-3112 ✓

Semester-III

**Course Title: Advanced Database Management System
(100)**

Time Allowed: 3 Hours**Max Marks: 70**

Note: Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 14 marks.

SECTION – A

1. Discuss various join operations available in SQL. Explain with examples how they are used to combine data from multiple tables.
2. What is a transaction? Explain the need for concurrency control and describe how ACID properties ensure reliable transaction processing.

SECTION – B

3. Write a detailed note on the fundamental components of a PL/SQL block. Discuss the role of triggers, cursors, and exception handling in PL/SQL applications.

4. Define Big Data and explain how it differs from traditional data. Discuss the relevance of the CAP theorem in distributed Big Data systems with suitable examples.

SECTION – C

5. Describe the main characteristics and advantages of NoSQL databases over relational databases. Discuss the different types of NoSQL databases with examples.
6. Explain the architecture and working of MongoDB. How are collections and documents created and managed in MongoDB? Illustrate CRUD operations with commands.

SECTION – D

7. Compare SQL queries with equivalent MongoDB operations. Explain how projection, sorting, and counting are handled in MongoDB queries.
8. Explain the concepts of replication and sharding in MongoDB. Discuss how they enhance performance and availability.

(For Reappear Candidates Only (2024-25))

Exam Code: 117903

Paper Code: 9348

Programme: Bachelor of Computer Applications
(Semester-III)

Course Title: Foundation of Data Science

Course Code: BCAL- 3111

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 16 marks.

Section-A

- Q.1. What is Data Science? Explain the Need and Components of data science. (16)
- Q.2. Explain the difference between Data Science and Business Intelligence. (16)

Section-B

- Q.3. What are various methods of data collection? (16)
- Q.4. Discuss the main types of Data Analytics taking examples of each. (16)

Section-C

- Q.5. Explain in detail the Exploratory and Confirmatory data analysis. (16)
- Q.6. Discuss in detail the Technical Skills of a data Analyst. (16)

Section-D

- Q.7. Explain the best practices of data story-telling. (16)
- Q.8. Explain the Components and Architecture of Power BI. (16)

Paper Code: 3260

Programme	Exam Code	Course Code
Bachelor of Computer Applications	117903	BCAL-3112
Bachelor of Science (Information Technology)	118003	BITL-3111

Semester- III

**Course Title: Computational Problem Solving
(100)**

Time Allowed: 3 Hours**Max Marks: 70**

Note: Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 14 marks.

Section - I

1. Explain Membership, unary, identify operators, relational and bitwise operators in Python. Also explain operator precedence and Associativity. 14
2. Explain Strings and Tuples in Python. What are various operations and functions that can be applied on them? 14

Section - II

3. Explain various control structures supported by Python with programming language 14
4. Write a Program in Python to print prime numbers upto 100. 14

Section - III

5. Explain Exception Handling in Python. How we can handled multiple exceptions in Python. Also explain try catch with else and finally block. 14
6. Explain the concept of files in Python. Explain their advantages and disadvantages. Explain seek and tell methods in Python. 14

Section - IV

7. Explain the SQLite Manger in Python. Explain various sqlite operations using Python. 14
8. Explain Object Oriented Programming in Python. Write a Program in Python to demonstrate the concept of inheritance. 14

Paper Code: 9345

Programme	Exam Code	Course Code
Bachelor of Computer Applications	117903	BCAL-3112

Semester-III

Course Title: Advanced Database Management System

Time Allowed: 3 Hours

Max Marks: 80

Note: Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 16 marks.

SECTION – A

1. Discuss various join operations available in SQL. Explain with examples how they are used to combine data from multiple tables.
2. What is a transaction? Explain the need for concurrency control and describe how ACID properties ensure reliable transaction processing.

SECTION – B

3. Write a detailed note on the fundamental components of a PL/SQL block. Discuss the role of triggers, cursors, and exception handling in PL/SQL applications.

4. Define Big Data and explain how it differs from traditional data. Discuss the relevance of the CAP theorem in distributed Big Data systems with suitable examples.

SECTION – C

5. Describe the main characteristics and advantages of NoSQL databases over relational databases. Discuss the different types of NoSQL databases with examples.
6. Explain the architecture and working of MongoDB. How are collections and documents created and managed in MongoDB? Illustrate CRUD operations with commands.

SECTION – D

7. Compare SQL queries with equivalent MongoDB operations. Explain how projection, sorting, and counting are handled in MongoDB queries.
8. Explain the concepts of replication and sharding in MongoDB. Discuss how they enhance performance and availability.

Exam Code: 117903

Paper Code: 3261 – R

Programme: Bachelor of Computer Applications

Semester - III

Course Title: Numerical Methods and Statistical Techniques

Course Code: BCAL-3113 

Time Allowed: 3 Hours

Max. Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks. **Students can use Non- Storage, Non- Programmable type Scientific Calculator.**

SECTION – A

- Q.1. (a) What are Numerical Methods? How do you compare numerical methods with numerical analysis? (7)
- (b) Give a number 865230, round off to four significant figures and compute the absolute, percentage and relative error. (7)

Q.2. Solve the following equations by Gauss Elimination method: (14)

$$2a - 3b + c = -1$$

$$a + 4b + 5c = 25$$

$$3a - 4b + c = 2$$

SECTION – B

Q.3. (a) Use the Newton's Forward Difference formula to evaluate the following data: (7)

x	10	15	20	25	30	35
y(x)	35.4	32.2	29.2	26.0	23.2	20.4

Interpolate the value y at x=16.

- (b) Evaluate $\int_1^2 (4x^2 + 3x - 9) dx$ using the Simpson's 3/8 rule (Given n=4). (7)

Q.4. Write short notes on:

(2 X 7 = 14)

(a) Trapezoidal rule of Integration

(b) Newton's Divided Difference method

SECTION – C

Q.5. Find Mean and Median from the following data: (14)

Marks Obtained	0-10	10-20	20-30	30-40	40-50	50-60
No. of students	12	18	27	20	17	6

Q.6. (a) What are the Mathematical Properties of Standard deviation?
Calculate Standard deviation from the following data: (9)

Age	5-7	8-10	11-13	14-16	17-19
Students	7	12	19	10	2

(b) Find mode from the following data: (5)

class	155-157	157-159	159-161	161-163	163-165
f	4	8	26	53	89

SECTION – D

Q.7. (a) In a fancy dress competition, two judges accorded the following ranks to eight participants: (7)

Judge X	8	7	6	3	2	1	5	4
Judge Y	7	5	4	1	3	2	6	8

(b) Explain the merits and demerits and properties of Correlation Coefficient? (7)

Q.8. Find Correlation Coefficient and the equation of regression lines for the following values of x and y: (14)

X	11	7	2	5	8	6	10
Y	7	5	3	2	6	4	8

Paper Code: 3261

Programme	Exam Code	Course Code
Bachelor of Computer Applications	121203 117903	BCAL-3113
Bachelor of Science (Information Technology)	121303 118003	BITL-3113

Semester- III

**Course Title: Numerical Methods and Statistical
Techniques
(100)**

Time Allowed: 3 Hours**Max Marks: 70**

Note: Attempt five questions, Each question carries equal 14 marks. Candidate are required to attempt at least one question from each section and fifth question can be attempted from any Section. Students are allowed to use non-storage and non-programmable type scientific calculator.

Section-A

- What is an error? What are the types of errors in numerical calculations? What are the commonly used measures of errors? 7
 - Let $X = 0.005998$. Find the relative error, absolute error and percentage error if X is rounded off to three decimal places. 7

2. (a) Find the root of the equation $x^3 - x - 1$ using the bisection method correct to three decimal places.

7

- (b) Solve the following 3*3 equations using the Gauss elimination method:

7

$$5x - y - 2z = 12$$

$$x - 3y - z = -30$$

$$2x - y - 3z = 5$$

Section-B

3. Evaluate using trapezoidal, Simpson 1/3 rule and Simpson 3/8 rule with 6 subintervals.

14

4. From the following data, estimate the number of students who obtained marks between 40 and 80.

Marks	35-45	45-55	55-65	65-75	75-85
No. of students	18	40	64	50	28

14

Section-C

5. (a) An incomplete distribution is given as follows:

Class	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	12	30	?	65	?	25	18

Find the missing frequencies if $N=229$ and the median value is 46. 7

(b) Calculate the mode, Quartile Deviation, D_8 , P_{65} along with its coefficients from the following data:

Annual Sales	10	<20	<30	<40	<50	<60
Frequency	8	20	35	55	62	67

7

6. (a) Calculate mean, mean deviation from mode, Standard Deviation and coefficient of variation from the following data: 7

More Than	80	70	60	50	40	30	20	10
Frequency	14	44	96	175	381	527	615	660

(b) Regarding the income of the area A and B data are given below:

	Area A	Area B
Number of persons	600	500
Average income	175	186
Variance	100	81

- (i) Which area has the variation of income greater?

- (ii) What is the average income of the two areas taken together?
- (iii) What is the combined standard deviation?

7

3. Ev

Sir

Section-D

7. (a) Three judges ranked ten competitors in a debate competition as follows. Which pair of judges agree the most?

Competitors	1	2	3	4	5	6	7	8	9	10
Judge 1	1	6	5	10	3	2	4	9	7	8
Judge 2	3	5	8	4	7	10	2	1	6	9
Judge 3	6	4	9	8	1	2	3	10	5	7

- (b) Determine both the regression equations along with its coefficients from the following data:

X	9	11	5	8	7
Y	6	2	10	4	8

Also find the regression coefficients.

$$2 \times 7 = 14$$

8. Given the data Below:

X	1	1.5	2	2.5	3	3.5	4
Y	1.1	1.3	1.6	2	2.7	3.4	4.1

Fit second degree polynomial.

14

BCA/ BSC (IT) Semester – IIII

Numerical Methods AND Statistical Techniques (BCAL/BITL-3113)

SECTION B

3. Evaluate $\int_{-2}^2 \frac{3x dx}{(4+x)^2}$ using trapezoidal, Simpson 1/3 rule and Simpson 3/8 rule with 6 subintervals.

Paper Code: 9346

Programme	Exam Code	Course Code
Bachelor of Computer Applications	117903	BCAL-3113

Semester- III**Course Title: Computational Problem Solving****Time Allowed: 3 Hours****Max Marks: 80**

Note: Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries **16** marks.

Section - I

1. Explain Membership, unary, identify operators, relational and bitwise operators in Python. Also explain operator precedence and Associativity. **16**
2. Explain Strings and Tuples in Python. What are various operations and functions that can be applied on them? **16**

Section - II

3. Explain various control structures supported by Python with programming language 16
4. Write a Program in Python to print prime numbers upto 100. 16

Section - III

5. Explain Exception Handling in Python. How we can handled multiple exceptions in Python. Also explain try catch with else and finally block. 16
6. Explain the concept of files in Python. Explain their advantages and disadvantages. Explain seek and tell methods in Python. 16

Section - IV

7. Explain the SQLite Manger in Python. Explain various sqlite operations using Python. 16
8. Explain Object Oriented Programming in Python. Write a Program in Python to demonstrate the concept of inheritance. 16

Exam Code: 117903

Paper Code: 3257 - R

Programme: Bachelor of Computer Applications Semester III

Course Title: Management Information System

Course Code: BCAL-3114

Time Allowed: 3 Hours

Max. Marks: 70

Note: Attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section. Each question will carry 14 marks.

SECTION - A

- Q1. Explain the Terms: Data, Information and Knowledge. Explain the role of Information System.
- Q2. Explain Implementation and Control of MIS.

SECTION - B

- Q3. Explain different phases of System Development Life cycle.
- Q4. What are various tools of Systems Analysis?

SECTION - C

- Q5. What do you know about Decision Support Systems? Explain.
- Q6. What are the Components and Benefits of EIS?

SECTION - D

- Q7. Discuss in detail the Expert Systems.
- Q8. Discuss the Case Study of Enterprise Resource Planning.

Exam Code: 117903
(80)

Paper Code: 3257

Programme: Bachelor of Computer Applications
Semester-III

Course Title: Management Information System

Course Code: BCAL-3114 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions in all, selecting at least one from each section, fifth question may be attempted from any section. All questions carry equal marks (14).

SECTION - A

1. Why is Information important for an organization?
Explain the Organizational structure. (14)
2. What are the Components and Functions of MIS. (14)

SECTION - B

3. Explain Rapid Application Development model of SDLC. (14)
4. How do you plan for Implementation and Maintenance. (14)

SECTION - C

5. What are different types of decisions taken at the organizational level. (14)
6. What do you know about Executive Information system. (14)

SECTION -D

7. Discuss in detail the Expert Systems? (14)
8. Discuss the Case Study of Expert System with Human Resource. (14)

Paper Code: 9347

Programme	Exam Code	Course Code
Bachelor of Computer Applications	117903	BCAL-3114 ✓

Semester- III

Course Title: Numerical Methods and Statistical Techniques

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions, Each question carries equal 16 marks. Candidate are required to attempt at least one question from each section and fifth question can be attempted from any Section. Students are allowed to use non-storage and non-programmable type scientific calculator.

Section-A

- (a) What is an error? What are the types of errors in numerical calculations? What are the commonly used measures of errors?
(b) Let $X = 0.005998$. Find the relative error, absolute error and percentage error if X is rounded off to three decimal places.

2. (a) Find the root of the equation $x^3 - x - 1$ using the bisection method correct to three decimal places.

(b) Solve the following 3×3 equations using the Gauss elimination method:

$$5x - y - 2z = 12$$

$$x - 3y - z = -30$$

$$2x - y - 3z = 5$$

Section-B

3. Evaluate using trapezoidal, Simpson $1/3$ rule and Simpson $3/8$ rule with 6 subintervals.
4. From the following data, estimate the number of students who obtained marks between 40 and 80.

Marks	35-45	45-55	55-65	65-75	75-85
No. of students	18	40	64	50	28

Section-C

5. (a) An incomplete distribution is given as follows:

Class	10-20	20-30	30-40	40-50	50-60	60-70	70-80
Frequency	12	30	?	65	?	25	18

Find the missing frequencies if $N=229$ and the median value is 46.

(b) Calculate the mode, Quartile Deviation, D_8 , P_{65} along with its coefficients from the following data:

Annual Sales	10	<20	<30	<40	<50	<60
Frequency	8	20	35	55	62	67

6. (a) Calculate mean, mean deviation from mode, Standard Deviation and coefficient of variation from the following data:

More Than	80	70	60	50	40	30	20	10
Frequency	14	44	96	175	381	527	615	660

(b) Regarding the income of the area A and B data are given below:

	Area A	Area B
Number of persons	600	500
Average income	175	186
Variance	100	81

- (i) Which area has the variation of income greater?

- (ii) What is the average income of the two areas taken together?
- (iii) What is the combined standard deviation?

Section-D

7. (a) Three judges ranked ten competitors in a debate competition as follows. Which pair of judges agree the most?

Competitors	1	2	3	4	5	6	7	8	9	10
Judge 1	1	6	5	10	3	2	4	9	7	8
Judge 2	3	5	8	4	7	10	2	1	6	9
Judge 3	6	4	9	8	1	2	3	10	5	7

- (b) Determine both the regression equations along with its coefficients from the following data:

X	9	11	5	8	7
Y	6	2	10	4	8

Also find the regression coefficients.

8. Given the data Below:

X	1	1.5	2	2.5	3	3.5	4
Y	1.1	1.3	1.6	2	2.7	3.4	4.1

Fit second degree polynomial.

Exam Code: 117903

Paper Code: 3263 – R

Programme: Bachelor of Computer Applications

Semester - III

Course Title: Data Analysis using Spreadsheet and Tableau

Course Code: BCAM-3110

Time Allowed: 3 Hours

Max. Marks: 40

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 8 marks.

SECTION – A

- Q1 (a) Explain the steps for applying different font formatting and cell color options in a spreadsheet.
(b) How can you merge cells and use the Paste Special feature? Illustrate with an example.
- Q2 (a) Describe the process of creating and formatting charts in spreadsheets.
(b) Discuss the role of Trend line charts in predicting future values.

SECTION – B

- Q3 (a) Define Time Series Analysis. Explain its importance in forecasting.
(b) Write short notes on Graphical Analysis of data relationships.
- Q4 (a) Differentiate between the IF, COUNT IF, and SUM IF functions in spreadsheets with suitable examples.
(b) What is a Pivot Table? Explain how it can be used to summarize large data sets.

SECTION – C

- Q5. (a) Explain the architecture and file types supported by Tableau.
(b) What are Data Extracts in Tableau? How are they created?
- Q6. (a) Discuss different types of charts available in Tableau.
(b) Write a short note on Combined Axis and Combination Charts with examples.

SECTION – D

- Q7 (a) Explain the steps involved in creating an interactive Tableau dashboard.
(b) What are Dashboard Actions? How are they used to improve interactivity?
- Q8 (a) Discuss best practices for designing effective Tableau dashboards.
(b) Explain the use of Running Actions and importing multiple sheets into a dashboard.

Paper Code: 3263

Programme	Exam Code	Course Code
Bachelor of Computer Applications	117903	BCAM-3110
Bachelor of Science (Information Technology)	118003	BITM-3110

Semester-III

Course Title:- Data Analysis using Spreadsheet and Tableau
(100)

Time Allowed: 3 Hours**Max Marks: 40**

Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 8 marks.

SECTION – A

- Explain the steps for applying different font formatting and cell color options in a spreadsheet. (4)
 - How can you merge cells and use the Paste Special feature? Illustrate with an example. (4)
- Describe the process of creating and formatting charts in spreadsheets. (4)
 - Discuss the role of Trend line charts in predicting future values. (4)

SECTION – B

- Define Time Series Analysis. Explain its importance in forecasting. (4)

(b) Write short notes on Graphical Analysis of data relationships. (4)

4. (a) Differentiate between the IF, COUNT IF, and SUM IF functions in spreadsheets with suitable examples. (4)

(b) What is a Pivot Table? Explain how it can be used to summarize large data sets. (4)

SECTION – C

5. (a) Explain the architecture and file types supported by Tableau. (4)

(b) What are Data Extracts in Tableau? How are they created? (4)

6. (a) Discuss different types of charts available in Tableau. (4)

(b) Write a short note on Combined Axis and Combination Charts with examples. (4)

SECTION – D

7. (a) Explain the steps involved in creating an interactive Tableau dashboard. (4)

(b) What are Dashboard Actions? How are they used to improve interactivity? (4)

8. (a) Discuss best practices for designing effective Tableau dashboards. (4)

(b) Explain the use of Running Actions and importing multiple sheets into a dashboard. (4)

Exam Code: 117903

Paper Code: 3262 - R

Programme: Bachelor of Computer Applications Semester III

Course Title: Data Visualization

Course Code: BCAM-3118

Time: 3 Hours

Max. Marks: 40

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 8 marks.

Section A

- Q1. What do you understand about Data Visualization? Explain the application areas of Data Visualization? (8)
- Q2. Explain the meaning and importance of UX in Data visualization. (8)

Section B

- Q3. Explain the goals of Data Visualization. (8)
- Q4. Write a note on the following with an example:
- Area Plots
 - Bar Charts
- (4*2=8)

Section C

- Q5. Discuss the following with an example:
- Scatter Plots
 - Bubble Plots
- (4*2=8)
- Q6. Explain various visualization tools with an example. (8)

Section D

- Q7. Explain Storyboards in Visualization with an example. (8)
- Q8. Write a note on:
- Waffle Charts
 - Word Clouds
- (4*2=8)

Paper Code: 3262

Programme	Exam Code	Course Code
Bachelor of Computer Applications	117903	BCAM-3118
Bachelor of Science (Information Technology)	118003	BITM-3118

Semester- III**Course Title: Data Visualization****(30)****Time Allowed: 3 Hours****Max Marks: 40**

Note: Attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries equal (8 each) marks.

Section A

1. What is Data Visualization? Explain the Importance of Data Visualization. 8
2. What is Data Visualization? What is the user psychology about data visualization? 8

Section B

3. What is DIKW hierarchy? Explain the four levels of DIKW.

8

4. Explain the Gestalt principles of Data Visualization. 8

Section C

5. What do you understand about Data Visualization tools?
Explain the Characteristics of Data Visualization. 8
6. Explain the image and graphical visualization with
Examples. 8

Section D

7. What is the need of advanced Data Visualization? 8
8. Explain the Maps in Data Visualization? 8

(For Reappear Candidates (Old Syllabus 2023-24))

Exam Code: 109103

Paper Code: 9338

Programme: Bachelor of Commerce (Honours) Semester: III

Course Title: Company Law

Course Code: BCOL-3092

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question can be attempted from any Section. Each question carries 16 marks.

Section-A

1. What do you mean by company? Discuss characteristics of a Company as per Companies Act 2013. (16)
2. Discuss the procedure of Formation of Company. (16)

Section-B

3. What do you mean by Articles of Association? Discuss the provisions for alteration of AOA. (16)
4. Write short notes on:
 - A) Red Herring Prospectus (4)
 - B) Shelf Prospectus (4)
 - C) Bonus issues (4)
 - D) Forfeiture of Shares (4)

Section-C

5. What are the methods of becoming a member under Companies Act 2013? (16)
6. Discuss provisions regarding Appointment and Removal of Director. (16)

Section-D

7. What do you mean by Company Meetings? What are the different kinds of meetings in a Company? (16)
8. What are the different modes of Winding Up? State the consequences of Winding up. (16)

Exam Code: 109103

Paper Code: 9341

Programme: Bachelor of Commerce (Honours) Semester: III

Course Title: Banking Theory and Practice

Course Code: BCOL-3093 ✓

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question can be attempted from any Section. Each question carries 16 marks.

Section- A

1. Define Commercial Banks. Explain the nature and functions of Commercial Banks in detail.
2. Discuss the various techniques or instruments of credit control used by Reserve Bank of India.

Section- B

3. Explain Negotiable Instruments. Also discuss features and types of Negotiable instruments.
4. Discuss the concept of Asset Liability Management in Commercial Banks in detail.

Section-C

5. Discuss the main recommendations of the Narasimham Committee I.
6. What is Financial Inclusion? Explain its importance.

Section- D

7. What is E-Banking? Explain various types of E- Banking services in detail.
8. Describe the concept and impact of Demonetisation on Indian banking sector.

(For Reappear Candidates Only (2022-23, 2023-24))

Exam Code : 109103

Paper Code : 9340

Bachelor of Commerce (Honours) (Semester-III)

Course Title : Analytical skills

Course Code : BCOL-3331

Time Allowed : 3 Hours

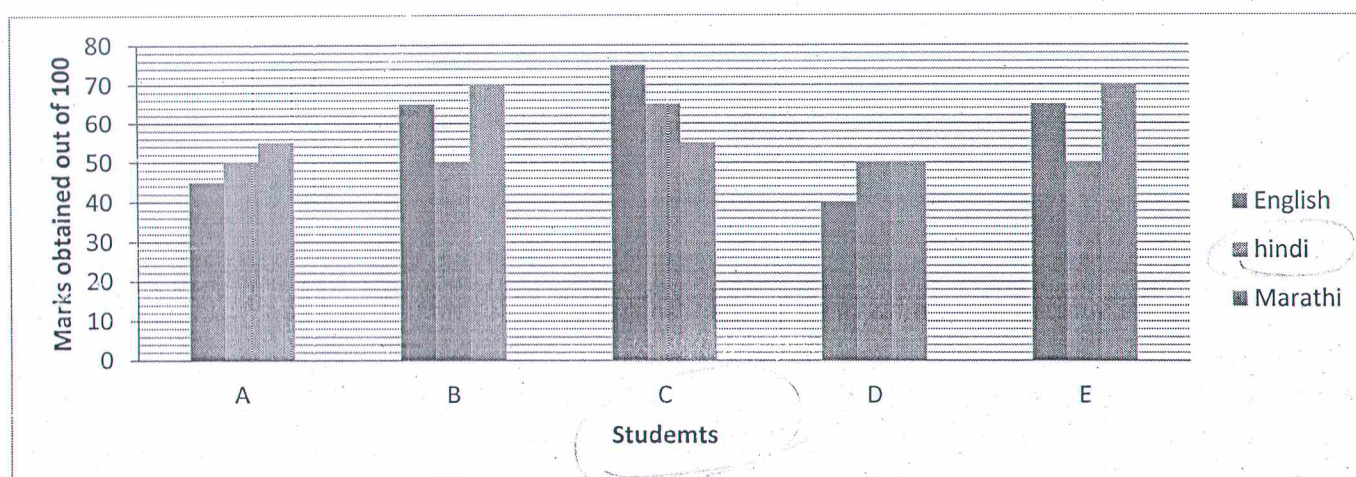
Max. Marks : 80

Note: Attempt five questions in all selecting at least one question from each section. The fifth question can be attempted from any section. Each question carries 16 marks.

Section-A

Q.1 Study the following graph carefully and answer the questions given below :

Marks scored by five students in languages (English, Hindi and Marathi)



(A) What is the C's overall approximate percentage?

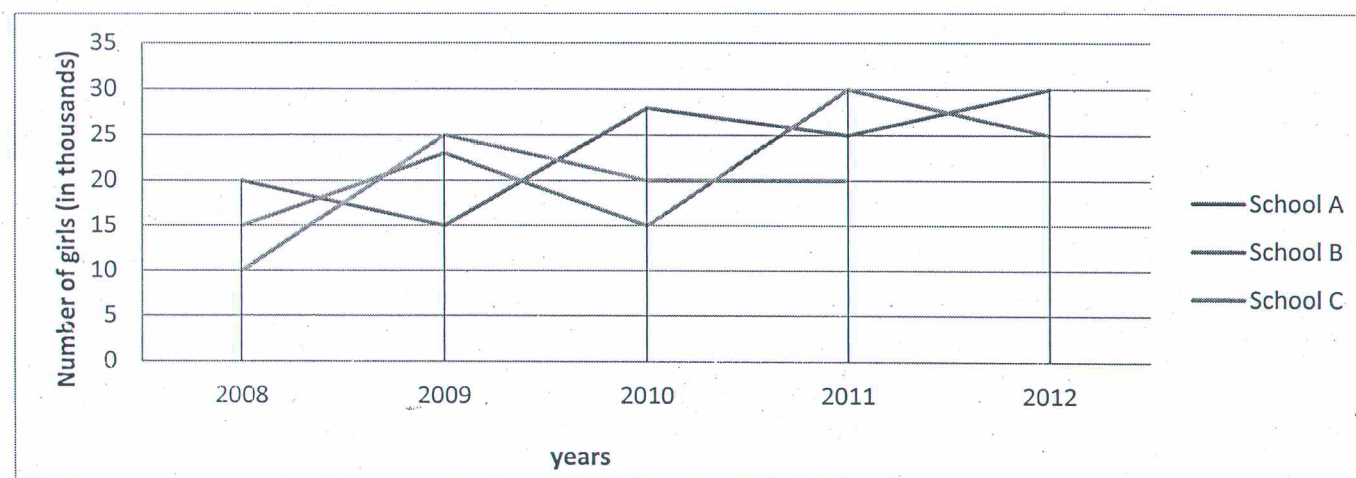
(B) What is the difference between the total marks obtained by B and the total marks obtained by C?

(C) What is the respective ratio of D's marks in English to B's marks in English ?

(D) What is the approximate average marks obtained by D?

(16)

Q.2 Study the following graph carefully and answer the questions given below :



- (A) What is the ratio between the number of the girls enrolled in School C in the year 2011 and the total number of girls enrolled in School A and School B together in the same year?
- (B) What is the approximate average number of girls enrolled in the year 2010 in all the three schools together ?
- (C) Total number of the girls enrolled in all the three schools in the year 2008 was what percentage of the number of girls enrolled in school C in the year 2011?
- (D) In which year was the total number of the girls enrolled in all three schools together second highest? (16)

Section-B

Q3 (a) Find the odd man out: 32, 36, 41, 61, 85, 122, 171, 235

(b) Insert the missing number : 15, 31, 63, 127, 255, ____ [8,8]

4(a) Choose the best alternative : $9 : 80 :: 100 : ?$

- (i) 901 (ii) 1009 (iii) 9889 (iv) 9999

(b) Choose the best alternative : $DE : 10 :: HI : ?$

- (i) 17 (ii) 20 (iii) 36 (iv) 46 [8,8]

Section-C

Q.5 (a) What was the day of week on 4th June, 2009?

(b) A girl introduced a boy as the son of the daughter of the father of her uncle. Then how is boy related to a girl? [8,8]

Q-6 (a) Simplify $(87 \times 87 + 61 \times 61 - 2 \times 87 \times 61)$

(b) which of the following is divisible by 3. Explain in detail

- (i) 451326 (ii) 5967013 [8,8]

Section- D

Q-7 a) Find the average of first 40 natural numbers

b) if 10% of x is 20% of y , then find x:y [8,8]

Q- 8 a) If C.P.is Rs. 2516 and S.P. is Rs. 2272, find the percentage loss.

b) Find the simple interest on Rs. 68000 at $16\frac{2}{3}\%$ per annum for 9 months. [8,8]

(For Reappear Candidates Only (2022-23, 2023-24))

Exam Code: 109103

Paper Code: 9343

Programme: Bachelor of Commerce (Honours) Semester: III
 Course Title: Corporate Accounting
 Course Code: BCOM-3096

Time allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions in all, selecting atleast one question from each section. The fifth question can be attempted from any section. Each question carries 10 marks. Non-scientific calculator is allowed.

SECTION - A

Q1. Explain the provisions of Sec 55 for redemption of preference shares along with its accounting treatment. (10)

Q2. A company issued 40,000 equity shares of ₹ 50 each at a premium of 10%. The amount payable was as follows:

On Application	₹ 10
On Allotment	₹ 20
On First Call	₹ 10
On Final Call	₹ 15

Rohan holding 70 shares did not pay final call money. His shares were forfeited. These shares were reissued to Raghu at ₹ 75 per share.

Pass journal entries to record the above transactions. (10)

SECTION - B

Q3. What is a **debenture**? Explain its meaning, features, and types in detail. (10)

Q4. The following is the Trial Balance of ABC Company Ltd. as on 31st March, 2024. Prepare Profit and Loss Statement in the form prescribed under the Companies Act, 2013.

Particulars	Dr. (₹)	Particulars	Cr. (₹)
(1) Calls-in-arrears	6,400	(21) Authorised Capital 50,000 shares of ₹ 10 each	
(2) Land	10,000	(22) 10,000 shares of ₹ 10 each	1,00,000
(3) Building	25,000	(23) Bad debts reserve	1,400
(4) Furniture & fixtures	15,000	(24) Sales	80,000
(5) Carriage inward	2,300	(25) Purchases returns	3,400
(6) Wages	21,400	(26) Sundry creditors	13,200
(7) Salaries	4,600	(27) Security premium reserve	6,000
(8) Plant and machinery	3,200	(28) General reserve	24,000
(9) Cash charges	100		
(10) Gas and water	700		
(11) Rates & taxes	800		
(12) Purchases	50,000		
(13) Bills receivable	1,200		

(14) Sales Return	1,700		
(15) General expenses	1,900		
(16) Sundry debtors	42,800		
(17) Stock on 1 April 2015	25,000		
(18) Insurance	400		
(19) Cash at bank	13,000		
(20) Cash in hand	2,500		
Total	2,28,000	Total	2,28,000

Charge depreciation on building at 2.5 %, plant and machinery at 10%, and furniture and fixtures at 10%. Make provision for bad debts 5% of debtors, carry forward the insurance premium of ₹ 120. Wages of ₹ 3,200, salaries of ₹ 5,00 and rent, rates, and taxes of ₹ 200 are outstanding for payment. The stock of ₹ 30,000 was lying in the godown on 31st March, 2024.

(10)

SECTION – C

Q5. Explain the various types of amalgamation in detail. What are the different methods of calculating purchase consideration?

(10)

Q6. A company went into voluntary liquidation on **31st March, 2024**, when its balance sheet was as follows:

Liabilities	Rs	Assets	Rs
Share Capital – 2,000 shares of Rs 100 each	2,00,000	Freehold Property	1,50,000
Debentures	50,000	Machinery	60,000
Creditors	70,000	Stock	30,000
		Debtors	20,000
		Cash	60,000
Total	3,20,000	Total	3,20,000

The **debentures** were secured by a *floating charge* on all assets.

The assets realised as follows:

- Freehold Property — Rs 1,70,000
- Machinery — Rs 50,000
- Stock — Rs 20,000
- Debtors — Rs 15,000

The **liquidation expenses** amounted to Rs 2,000, and the **liquidator** was entitled to remuneration of:

- 3 % on assets realised (except cash), and
- 2 % on the amount distributed to unsecured creditors.

Prepare the Liquidator's Final Statement of Account.

(10)

SECTION – D

Q7. Give the format of the Profit and Loss Account of Banking Companies and the schedules forming a part of that.

(10)

Q8. Explain the format of the **Revenue Account** and **Balance Sheet** of a **Life Insurance Company** in detail.

(10)

Exam Code: 121103

Paper Code: 9333

Programme: Bachelor of Commerce (Semester: III)

Course Title: Corporate Accounting

Course Code: BCRM-3097

Time allowed: 3 Hours

Max Marks: 30

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 06 marks. Non-scientific calculator is allowed.

SECTION - A

Q1. Explain the **redemption of preference shares** and the legal conditions for redemption under the Companies Act.

Q2. X Ltd., invited applications for 10,000, 12% Debentures of ₹ 100 each at 20% premium ₹ 30 payable on application, ₹ 60 payable on allotment (including premium) and the balance of first and final call ₹ 30.

Applications were received for 16,000 debentures. The allotment was made as follows :

(i) To refuse allotment to the applicants of 2,000 debentures.

(ii) To give 100% allotment to the applicants of 4,000 debentures.

(iii) To give 80% allotment to the applicants on pro-rata basis.

The excess money received in case of pro-rata allotment was retained for allotment

SECTION - B

Q3. X Ltd. decided to sell its business to Z Ltd. On which date the Balance Sheet of X Ltd. was as follows :

Equity & Liabilities	₹
Share Capital :	
50,000 Equity Shares of ₹ 10 each	5,00,000
14% Debentures	1,00,000
Creditors	90,000
Reserves	2,10,000
Total	8,00,000
Assets	₹
Goodwill	80,000
Property	1,50,000
Plant	2,10,000
Stock	70,000
Cash	2,90,000
Total	8,00,000

Z Ltd. took over all assets (except cash) at their book value, goodwill at ₹ 1,00,000 and property at ₹ 1,80,000. Z Ltd. agreed to pay ₹ 90,000 in cash & balance in the form of fully paid equity shares of ₹ 100. Expenses of liquidation were ₹ 15,000.

Show ledger accounts in the books of X Ltd. & journal entries in the books of Z Ltd.

Q4. (a) Explain internal reconstruction in detail.

(b) Explain amalgamation in nature of merger.

SECTION - C

Q5 Give the format of the Profit and Loss Account of Banking Companies and the schedules forming a part of that.

Q6. The following ledger balances of ABC Bank Ltd. as at 31st March, 2022, are furnished to you. Prepare the Profit and Loss Account and balance sheet as per requirements of law.

	Amount in ₹ (000)		Amount in ₹ (000)
Statutory Reserve	1200	Cash	225
Bad Debts Written Off	128	Interest Earned	550
Operating Expenses	182	Balance with RBI	2,030
Current Accounts	20,245	Balance with Foreign Banks	1,206
Interest Paid	160	Bills for Collection	1,500
Deposits Accounts	6920	Borrowing from Banks	6,482
Profit and Loss A/C (B/F)	229	Cash Credits and Overdrafts	15,457
Bills Receivable for Customer	1,500	Investments	9,882
Discount	244	Bills Discounted	6,228
Endorsements and Guarantees	575	Premise	2,217
Commission	45	Share Capital	2,000

The following further information is furnished:

1. Rebate on Bills Discounted to be provided Rs. 64,000
2. The Bank had paid an interim dividend of Rs. 2,00,000 during the year.

SECTION – D

Q7. (a) Explain the format of the **Revenue Account of a Life Insurance Company** in detail.

(b) Explain the following terms: Premium, Surrender Value, Endowment Policy, Annuity and Reinsurance

Q8. The following trial balance was extracted from the books of the Goodluck Life Assurance Company Ltd. as on 31st March, 2022.

	Dr. Rs in crores	Cr. Rs in crores
Paid-up capital – 200 crore shares of Rs 10 each		2,000
Life Assurance Fund as on 1 st April 2021		59,446
Bonus to policyholders	630	
Premiums Received		3,230
Claims Paid	3940	
Commission paid	186	
Management Expenses	646	
Mortgage in India	9,844	
Interest, dividend and rents		2,254
Agent's Balances	186	
Investment Properties- Real Estate	800	
Investments	46,100	
Loan on Company's Policies	3,472	
Cash on Deposits	540	
Cash in hand and on Current Account	446	
Surrenders	140	
	66,930	66,930

You are required to prepare Company's Revenue Account for the year ended 31st March, 2022 and Balance Sheet as on that date after taking the following matters into consideration:

	Rs in crores
(i) Claims admitted but not paid	186
(ii) Management expenses due	4
(iii) Interest Accrued	386
(iv) Premiums Outstanding	240

For Reappear Candidates (Old Syllabus (2024-25))

Exam Code: 121103

Paper Code: 9335

Programme: Bachelor of Commerce (Semester-III)

Course Title: Punjabi (Compulsory)

Course Code: BCRL-3031

M:M-80

Time -3 hours.

ਨੋਟ-ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਲਾਜ਼ਮੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ 16 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ -I

1. ਮਿੱਠਤ ਨਾਲ ਅਸੀਂ ਕਈ ਕੰਮ ਕੱਢ ਸਕਦੇ ਹਾਂ ਲੋਕਾਂ ਕੋਲੋਂ ਸਤਿਕਾਰ ਤੇ ਪ੍ਰਸ਼ੰਸਾ ਪ੍ਰਾਪਤ ਕਰਦੇ ਹਾਂ। ਤੇ ਉਨ੍ਹਾਂ ਉੱਤੇ ਆਪਣੇ ਸੁਭ ਆਚਰਨ ਦਾ ਪ੍ਰਭਾਵ ਪਾ ਸਕਦੇ ਹਾਂ। ਇਸ ਦੇ ਉਲਟ ਕੋੜਾ ਬੋਲਣਾ ਇੱਕ ਅਜਿਹਾ ਔਗੁਣ ਹੈ ਜਿਸ ਦੇ ਹੇਠਾਂ ਮਨੁੱਖ ਦੇ ਸੁਭ ਗੁਣ ਢੱਕੇ ਜਾਂਦੇ ਹਨ। ਕੋੜਾ ਬੋਲਣ ਵਾਲੇ ਤੋਂ ਲੋਕ ਦੂਰ-ਦੂਰ ਰਹਿੰਦੇ ਹਨ। ਅਜਿਹਾ ਬੰਦਾ ਭਾਵੇਂ ਕਿੰਨਾ ਅਮੀਰ ਤੇ ਗਿਆਨਵਾਨ ਹੋਵੇ ਜਾਂ ਕਿਸੇ ਉੱਚੀ ਪਦਵੀ ਉੱਤੇ ਹੋਵੇ, ਉਹ ਲੋਕਾਂ ਵਿੱਚ ਦਿਲੀ ਆਦਰ ਪ੍ਰਾਪਤ ਨਹੀਂ ਕਰ ਸਕਦਾ। ਸਭ ਲੋਕ ਮਿੱਠਤ ਦੇ ਗਾਹਕ ਹਨ ਤੇ ਸਾਰੇ ਹੀ ਕੋੜੀ ਚੀਜ਼ ਨੂੰ ਬੁੱਕ ਦਿੰਦੇ ਹਨ। ਕੋੜੇ ਛਿਕੇ ਤੇ ਖਵੇ ਬੋਲ ਅਤੇ ਵਿੰਨ੍ਹਵੀਂ ਟੋਕਾ ਟਾਕੀ ਤੇ ਆਲੋਚਨਾ ਹਰ ਕਿਸੇ ਦਾ ਦਿਲ ਲੂੰਹਦੀ ਹੈ। ਤੇ ਇਹਨਾਂ ਦਾ ਅਸਰ ਸਦੀਵੀ ਹੁੰਦਾ ਹੈ। ਇਸ ਵਾਸਤੇ ਕਿਹਾ ਜਾਂਦਾ ਹੈ ਕਿ ਤਲਵਾਰ ਦਾ ਫੱਟ ਮਿਟ ਜਾਂਦਾ ਹੈ ਪਰ ਜੁਬਾਨ ਦਾ ਡੱਟ ਕਦੀ ਨਹੀਂ ਮਿਟਦਾ।

ਉੱਪਰਲੇ ਪੈਰ੍ਹੇ ਨੂੰ ਧਿਆਨ ਨਾਲ ਪੜ੍ਹੋ ਅਤੇ ਹੇਠਾਂ ਲਿਖੇ ਪ੍ਰਸ਼ਨ ਦੇ ਉੱਤਰ ਦਿਓ।

ੳ) ਕਿਸ ਗੁਣ ਨਾਲ ਲੋਕਾਂ ਤੋਂ ਕੰਮ ਕਢਾਇਆ ਜਾ ਸਕਦਾ ਹੈ?

ਅ) ਸਾਰੇ ਲੋਕ ਕਿਸ ਔਗੁਣ ਤੇ ਬੁੱਕਦੇ ਹਨ?

ੲ) ਕਿਸ ਦਾ ਫੱਟ ਮਿਟ ਜਾਂਦਾ ਹੈ ਕਿਸ ਦਾ ਨਹੀਂ ਮਿਟਦਾ?

ਸ) ਪੈਰ੍ਹੇ ਦਾ ਢੁਕਵਾਂ ਸਿਰਲੇਖ ਦਿਓ?

2. ਹੇਠ ਲਿਖੇ ਪੈਰ੍ਹੇ ਦੀ ਇੱਕ ਤਿਹਾਈ ਸ਼ਬਦਾਂ ਵਿੱਚ ਸੰਖੇਪ ਰਚਨਾ ਕਰੋ ਤੇ ਨਾਲ ਹੀ ਢੁਕਵਾਂ ਸਿਰਲੇਖ ਵੀ ਦਿਓ।

ਲੋਕ ਨਾਚ ਉਹ ਨਾਚ ਹੈ ਜਿਸ ਨੂੰ ਲੋਕੀ ਨੱਚਦੇ ਹੋਣ। ਜਿਸ ਵਿੱਚ ਇਲਾਕੇ ਦੇ ਆਮ ਲੋਕ ਆਪਣੀਆਂ ਖੁਸ਼ੀਆਂ ਸਧਰਾਂ ਮਨ ਦੀਆਂ ਭਾਵਨਾਵਾਂ ਅਤੇ ਵਲਵਲੇ ਦਰਸਾਉਂਦੇ ਹੋਣ। ਲੋਕ ਨਾਚ ਆਪਣੇ ਇਲਾਕੇ ਦੀ ਸੱਭਿਅਤਾ ਦਾ ਦਰਪਣ ਹੁੰਦਾ ਹੈ ਕਿਉਂਕਿ ਜਦੋਂ ਲੋਕੀ ਖੁਸ਼ੀ ਦੀ ਤਰੰਗ ਵਿੱਚ ਹੁੰਦੇ ਹਨ ਤਾਂ ਉਹ ਆਪਣੇ ਅਸਲੇ ਪ੍ਰਗਟ ਕਰਦੇ ਹਨ। ਮੁੱਢਲਾ ਮਨੁੱਖ ਜਦੋਂ ਖੁਸ਼ੀ ਵਿੱਚ ਆ ਕੇ ਨੱਚਣ ਲੱਗਾ ਤਾਂ ਉਸਦੇ ਸਾਥੀ ਉਸਨੂੰ ਖੁਸ਼ੀ ਵੇਖ ਕੇ ਨਾਲ ਹੀ

ਨੱਚਣ ਲੱਗ ਪਏ। ਇੱਕ ਦੀ ਖੁਸ਼ੀ ਵੱਧ ਕੇ ਕਈ ਗੁਣਾ ਹੋ ਗਈ ਜਦੋਂ ਉਸਨੇ ਦੂਜਿਆਂ ਨੂੰ ਆਪਣੀ ਖੁਸ਼ੀ ਵਿੱਚ ਮਿੱਥ ਹੋ ਕੇ ਨੱਚਦੇ ਵੇਖਿਆ। ਖੁਸ਼ੀਆਂ ਦੀਆਂ ਘੜੀਆਂ ਲਈ ਲੋਕ ਨਾਚ ਇੱਕ ਸਹਿਜ ਵਸੀਲਾ ਬਣ ਗਿਆ ਹਰ ਖੁਸ਼ੀ ਦੇ ਸਮੇਂ ਨੱਚਣਾ ਇੱਕ ਰਵਾਇਤ ਬਣ ਗਿਆ। ਪੁੱਤਰ ਜੰਮਣ ਤੇ ਵਿਆਹ ਸ਼ਾਦੀ ਉੱਤੇ ਤਿੱਥਾਂ ਤਿਉਹਾਰਾਂ ਉੱਤੇ ਮੇਲਿਆਂ ਤੇ ਹੋਰ ਖੁਸ਼ੀ ਭਰੇ ਇਕੱਠਾਂ ਤੇ ਨੱਚਣਾ ਜ਼ਰੂਰੀ ਅੰਗ ਸਮਝਿਆ ਜਾਣ ਲੱਗਾ।

ਸੈਕਸ਼ਨ -II

3. ਹੇਠਾਂ ਲਿਖੇ ਕਾਵਿ -ਟੋਟੇ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰੋ।

‘ਕੁਝ ਰੁੱਖ ਮੈਨੂੰ ਪੁੱਤ ਲੱਗਦੇ ਨੇ

ਕੁਝ ਰੁੱਖ ਲੱਗਦੇ ਮਾਵਾਂ

ਕੁਝ ਰੁੱਖ ਨੂੰਹਾਂ ਧੀਆਂ ਲੱਗਦੇ

ਕੁਝ ਰੁੱਖ ਵਾਂਗ ਭਰਾਵਾਂ

ਕੁਝ ਰੁੱਖ ਮੇਰੇ ਬਾਬੇ ਵਾਕਣ

ਪੁੱਤਰ ਟਾਵਾਂ ਟਾਵਾਂ

ਕੁਝ ਰੁੱਖ ਮੇਰੀ ਦਾਦੀ ਵਰਗੇ

ਚੂਰੀ ਪਾਵਣ ਕਾਵਾਂ ।

4. ‘ਸਮਾਂ’ ਕਵਿਤਾ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ‘ਚ ਲਿਖੋ?

ਸੈਕਸ਼ਨ -III

5. ‘ਭੂਆ’ ਕਹਾਣੀ ਦਾ ਸਾਰ ਲਿਖੋ?

6. ‘ਧਰਤੀ ਹੇਠਲਾ ਬੋਲਦ’ ਕਹਾਣੀ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਵਿਸਥਾਰ ਨਾਲ ਲਿਖੋ?

ਸੈਕਸ਼ਨ-IV

7. ‘ਮਨੁੱਖ ਕੁਦਰਤ ਦੀ ਨੇਕ ਐਲਾਦ ਨਹੀਂ’ ਨਿਬੰਧ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਲਿਖੋ?

8. ‘ਘਰ ਦਾ ਪਿਆਰ’ ਨਿਬੰਧ ਦਾ ਸਾਰ ਲਿਖੋ?

Exam Code: 121103
(50)

Paper Code: 3233

Programme: Bachelor of Commerce
Semester-III

Course Title: Company Law

Course Code: BCRL-3093 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note:- Attempt FIVE Questions in all, selecting at least ONE question from each section. The Fifth question may be attempted from any section. Each question carries 14 marks.

SECTION-A

1. What is a Corporate Veil? When it is said to be Lifted.
14
2. Memorandum of Association is a Charter of the Company? Explain various clauses of Memorandum of Association.
14

SECTION -B

3. What do you mean by Dematerialisation of Shares? What are the requisites for dematerialisation of shares? Also explain its process.
14
4. "A Company meeting must be duly convened and properly constituted"? Explain this statement and

discuss in detail various requisites of valid general meeting. 14

SECTION –C

5. What is Winding up? State the various modes of Winding up. 14
6. Discuss the provisions of Companies Act regarding Appointment of Directors of a Company. 14

SECTION –D

7. Define One Person Company (OPC)? Discuss the procedure of Formation of One Person Company. 14
8. What is the need of Registration of a Company? Discuss the Procedure of Online Registration of a Company. 14

(For Reappear Candidates Only (Session 2024-25))

Exam Code: 121103

Paper Code: 9336

Programme: Bachelor of Commerce (Semester-III)

Course Title: Business Environment

Course Code: BCRL-3093

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question can be attempted from any Section. Each question carries 16 marks.

Section-A

1. What do you mean by Business Environment? Discuss various components of Business Environment in detail.
2. Discuss the Economic Trends in India with reference to Savings and Investment.

Section-B

3. What is meant by Unemployment? Explain the nature and types of Unemployment in India.
4. What do you mean by Devaluation? What are the effects of Devaluation?

Section-C

5. What is deficit financing? Examine the effect of Deficit Financing on Indian Economy.
6. What is Economic Planning? Explain the features and objectives of Economic Planning.

Section-D

7. Explain salient features of FEMA.
8. What is EXIM Policy? Discuss its objectives and importance in India's Foreign Trade.

Exam Code: 121103
(50)

Paper Code: 3234

Programme: Bachelor of Commerce
Semester-III

Course Title: Functional Management

Course Code: BCRL-3094 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note: Students are required to attempt five questions in all, choosing one question from each section and fifth question from any section. All questions carry equal marks (14).

Section-A

1. Management is both a science and an art, but not an exact science.' Discuss this statement with suitable arguments. (14)
2. Define the term 'Business Ethics'. Elaborate various ethical issues faced by a business in its functioning. (14)

SECTION-B

3. Discuss different methods used for training employees in an organisation. (14)

4. Explain various methods of Merit Rating used to evaluate the performance of employees. (14)

SECTION-C

5. What is Marketing? Explain the functions of Marketing. (14)
6. Define Salesmanship. What are the qualities required in a person for successful selling? (14)

SECTION-D

7. Explain in detail the process of Strategic Management. (14)
8. What is Quality Control? Discuss its importance. (14)

Exam Code: 121103
(50)

Paper Code: 3236

Programme: Bachelor of Commerce
Semester-III

Course Title: Computer Based Accounting

Course Code: BCRM-3090

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt 5 questions, selecting atleast one question from each section. The fifth question may be attempted from any section. Each question carries 10 Marks.

SECTION A

1. Describe in detail the various applications of computers in at least five different business sectors with example.
2. Describe the key features of an effective Accounting Information System?

SECTION B

3. Describe the components and benefits of a computerized Accounting System.

4. How does customized accounting software differ from tailor made software? Discuss their advantages and disadvantages.

SECTION C

5. Describe the key features of Tally for multi- user highlighting the benefits and limitation of Tally Server for Single User.
6. What are the steps to activate Tally ERP 9 for a single user not connected to the internet?

SECTION D

7. Discuss the new features introduced in the latest version of Tally and their impact on business operations.
8. Explain the features and benefits of the Gateway of Tally in detail.

Exam Code: 121103

Paper Code: 3235

Programme: Bachelor of Commerce Semester III

Course Title: Corporate Accounting

Course Code: BCRM-3095

Time: 3 Hours

Max. Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks. Non-scientific calculators can be used.

SECTION - A

Q1. Explain the rules regarding the redemption of Preference shares and their accounting treatment.

Q2. X Co. Ltd invited applications for 20,000 equity shares of ₹ 10 each at a premium of ₹ 2 per share, payable ₹ 3 on application, ₹ 7 on allotment, including premium, and the balance on first and final call. Applications for 25,000 shares were received. It was decided

- (a) to refuse allotment to applicants for 1,000 shares.
- (b) to allot in full to applicants for 4,000 shares.
- (c) to allot the balance of the available shares pro rata among the other applicants, and
- (d) to utilise excess application money in part payment of allotment money.

Mr. X, holding 200 shares to whom shares had been allotted on a pro-rata basis, failed to pay the amount due on allotment and call, and Mr. Y, holding 100 shares to whom full allotment was made, failed to pay the amount due on call only. These shares were forfeited.

150 forfeited shares of Mr. X and 40 forfeited shares of Mr. Y were reissued at a discount of Re. 1 per share to Mr. Z.

Show the necessary journal entries.

SECTION - B

Q3. The balance sheet of X Ltd. as on 31st March, 2025 is as follows:

Liabilities	₹	Assets	₹
Share Capital (₹10 each)	8,00,000	Fixed Assets	7,00,000
General Reserve	1,50,000	Investments	1,20,000
Profit & Loss A/c	80,000	Stock	2,00,000
Creditors	2,20,000	Debtors	1,80,000
Bills Payable	50,000	Cash	2,00,000
Total	12,00,000	Total	12,00,000

Y Ltd. agreed to take over the business of X Ltd. on 1st April, 2025, on the following terms:

a) Purchase consideration is to be satisfied as follows: 70% by issue of equity shares of ₹10 each at ₹12 per share, and the balance by cash.

b) The assets and liabilities are taken over at book value.

c) Liquidation expenses amount to ₹10,000, to be borne by Y Ltd.

You are required to calculate the purchase consideration payable by Y Ltd. to X Ltd. Pass the journal entries in the books of Y Ltd. to record the amalgamation.

Q4. a) Explain the accounting treatment of assets, liabilities, and reserves in the books of the purchasing company at the time of amalgamation.

b) Explain the form and contents of the Balance Sheet of a Limited Liability Company.

SECTION- C

Q5. Prepare the Final Accounts of a Banking Company.

Q6. The ledger balances balance of ABC Bank Ltd as on 31/03/2016 are furnished to you as follow. Prepare the balance sheet.

	Rs.		Rs.
Paid up capital	10,00,000	Furniture	20,000
Local bill discounted	9,00,000	Fixed deposits	20,00,000
Reserve funds	3,85,000	Profit and loss(Cr) Before provision for doubtful debts	1,10,000
Cash credits and overdraft	14,00,000	Stamps and stationary in hand	5,000
Unclaimed dividend	5,000	Cash in hand	2,50,000
loan	23,00,000	Cash at bank	6,50,000
Current and savings deposits	25,00,000	Investment at cost	4,75,000
		Acceptance and endorsements	1,00,000

Additional info:- Out of the total debts, debts for Rs. 2,85,000 were doubtful and rest were considered good. Out of the debts considered good Rs.. 24,00,000 were fully secured, and for that amounting to Rs.. 4,00,000(including Rs. 1,15,000 due by a director), the bank held personal securities of one or more persons in addition to personal security of the debtors and for the rest the bank held no securities other than debtors personal securities. The directors required the bank investment to be shown in the balance sheet at market value that is Rs.5,25,000. The authorized capital of the bank Rs.. 12,00,000.

Prepare balance sheet on 31/03/2016. Show the various schedules as per the law.

SECTION- D

Q7. Write short notes on the following:

- a) Bonus in Reduction of Premium
- b) Claims
- c) Annuities
- d) Reinsurance

Q8. The following balances from the books of Zenith General Insurance Co. as on 31.03.2017. Prepare the Revenue Accounts of Fire and Marine Business for the year ended 31st March, 2017.

Particulars	Fire (₹)	Marine (₹)
Premium less reinsurance	1,87,000	1,36,000
Claims paid	1,34,000	4,30,000
Commission less reinsurance	74,000	20,000
Management expenses (including other expenses ₹26,000)	1,24,000	4,20,000
Depreciation on assets	22,000	40,000
Directors' fees	72,000	1,35,000
Claims outstanding (1.4.2016)	4,30,000	4,80,000
Premium outstanding (1.4.2016)	1,720	1,360
Additional reserve (1.4.2016)	20,000	22,000

Additional Information:

A. Profit on sale of investments: ₹16,000

B. Premium outstanding on 31.03.2017: Fire ₹60,000; Marine ₹30,000

C. Claims outstanding on 31.03.2017: Fire ₹92,000; Marine ₹54,000

D. Reserve for unexpired risks to be maintained at 50% and 100% of net premium of fire and marine insurance respectively. Additional reserve for fire to be kept at 20% of net premium.

(For Reappear Candidates (Old Syllabus 2024-25))

Exam Code: 121103

Paper Code: 9334

Programme: Bachelor of Commerce (Semester: III)
 Course Title: Corporate Accounting
 Course Code: BCRM-3097

Time allowed: 3 Hours

Max Marks: 50

Note: Students are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section. Each question carries 10 marks. Non-scientific calculator is allowed.

SECTION - A

Q1. Explain the **redemption of preference shares** and the legal conditions for redemption under the Companies Act.

Q2. X Ltd., invited applications for 10,000, 12% Debentures of ₹ 100 each at 20% premium ₹ 30 payable on application, ₹ 60 payable on allotment (including premium) and the balance of first and final call ₹ 30. Applications were received for 16,000 debentures. The allotment was made as follows :

- (i) To refuse allotment to the applicants of 2,000 debentures.
- (ii) To give 100% allotment to the applicants of 4,000 debentures.
- (iii) To give 80% allotment to the applicants on pro-rata basis.

The excess money received in case of pro-rata allotment was retained for allotment

SECTION - B

Q3. X Ltd. decided to sell its business to Z Ltd. On which date the Balance Sheet of X Ltd. was as follows :

Equity & Liabilities	₹
Share Capital :	
50,000 Equity Shares of ₹ 10 each	5,00,000
14% Debentures	1,00,000
Creditors	90,000
Reserves	2,10,000
Total	8,00,000
Assets	₹
Goodwill	80,000
Property	1,50,000
Plant	2,10,000
Stock	70,000
Cash	2,90,000
Total	8,00,000

Z Ltd. took over all assets (except cash) at their book value, goodwill at ₹ 1,00,000 and property at ₹ 1,80,000. Z Ltd. agreed to pay ₹ 90,000 in cash & balance in the form of fully paid equity shares of ₹ 100. Expenses of liquidation were ₹ 15,000.

Show ledger accounts in the books of X Ltd. & journal entries in the books of Z Ltd.

Q4. (a) Explain internal reconstruction in detail.

(b) Explain amalgamation in nature of merger

SECTION - C

Q5 Give the format of the Profit and Loss Account of Banking Companies and the schedules forming a part of that.

Q6. The following ledger balances of ABC Bank Ltd. as at 31st March, 2022, are furnished to you. Prepare the Profit and Loss Account and balance sheet as per requirements of law.

	Amount in ₹ (000)		Amount in ₹ (000)
Statutory Reserve	1200	Cash	225
Bad Debts Written Off	128	Interest Earned	550
Operating Expenses	182	Balance with RBI	2,030
Current Accounts	20,245	Balance with Foreign Banks	1,206
Interest Paid	160	Bills for Collection	1,500
Deposits Accounts	6920	Borrowing from Banks	6,482
Profit and Loss A/C (B/F)	229	Cash Credits and Overdrafts	15,457
Bills Receivable for Customer	1,500	Investments	9,882
Discount	244	Bills Discounted	6,228
Endorsements and Guarantees	575	Premise	2,217
Commission	45	Share Capital	2,000

The following further information is furnished:

1. Rebate on Bills Discounted to be provided Rs. 64,000
2. The Bank had paid an interim dividend of Rs. 2,00,000 during the year.

SECTION – D

Q7. (a) Explain the format of the **Revenue Account of a Life Insurance Company** in detail.

(b) Explain the following terms: Premium, Surrender Value, Endowment Policy, Annuity and Reinsurance

Q8. The following trial balance was extracted from the books of the Goodluck Life Assurance Company Ltd. as on 31st March, 2022.

	Dr. Rs in crores	Cr. Rs in crores
Paid-up capital – 200 crore shares of Rs 10 each		2,000
Life Assurance Fund as on 1 st April 2021		59,446
Bonus to policyholders	630	
Premiums Received		3,230
Claims Paid	3940	
Commission paid	186	
Management Expenses	646	
Mortgage in India	9,844	
Interest, dividend and rents		2,254
Agent's Balances	186	
Investment Properties- Real Estate	800	
Investments	46,100	
Loan on Company's Policies	3,472	
Cash on Deposits	540	
Cash in hand and on Current Account	446	
Surrenders	140	
	66,930	66,930

You are required to prepare Company's Revenue Account for the year ended 31st March, 2022 and Balance Sheet as on that date after taking the following matters into consideration:

	Rs in crores
(i) Claims admitted but not paid	186
(ii) Management expenses due	4
(iii) Interest Accrued	386
(iv) Premiums Outstanding	240

Exam Code: 119603

Paper Code: 3269

Programme: Bachelor of Science (Fashion Designing)

Semester: III

Course Title: Colour Concepts and Colouration

Course Code: BFDM-3231 ✓

Time Allowed: 3 hrs

Total Marks: 50

Note: Attempt five questions, selecting atleast one from each section. The fifth question can be attempted from any section. Each question carries 10 marks.

SECTION-A

1. Discuss
 - a) Related colour schemes
 - b) Contrasting Colour Schemes
2. Discuss different types of Pigments.

SECTION-B

3. What do you know about types of design and their application in textiles?
4. Write in detail about the principles of Design.

SECTION-C

5. Write in detail about the dyeing of yarns.
6. Explain in detail about the natural dyes.

SECTION-D

7. What do you know about the material, dyes and motifs used in Block printing?
8. Discuss
 - a) Direct Printing
 - b) Roller Printing

Exam Code: 119603
(40)

Paper Code: 3270

Programme: Bachelor of Science (Fashion Designing)
Semester-III

Course Title: Pattern Making and Garment Construction

Course Code: BFDM-3232 ✓

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions in all, one questions from each section and fifth question from any section each question carries 10 marks.

Section-A

1. What do you understand by Basic foundation pattern?
What are the various pieces of a basic pattern set? (10)
2. Write short note on
 - a. Dart manipulation
 - b. Pivotal transfer method (5 *2=10)

Section- B

3. What are various principles of layout? State their importance in pattern making. (10)

4. Briefly explain importance of a pattern envelope? What information is prescribed on the envelope? (10)

Section-C

5. Briefly explain various types of commercial paper patters? (10)
6. Write short note on:
- a. Pattern markings
 - b. Drafting (5*2=10)

Section-D

7. Briefly explain the fabric estimation and its importance. (10)
8. Briefly Explain the method of fabric preparation before garment construction. (10)

Exam Code: 119603
(40)

Paper Code: 3271

Programme: Bachelor of Science (Fashion Designing)
Semester-III

Course Title: Knitting Technology

Course Code: BFDM-3233 ✓

Time Allowed: 3 Hours

Max Marks: 50

NOTE—Attempt five questions, All questions carry equal marks (10 marks), Selecting at least one question from each section. The fifth question may be attempted from any section.

Section-A

1. Explain difference between Knits and Woven? (10)
2. Discuss hand knitting in detail with illustration? (10)

Section-B

3. Describe Warp and weft knitting with its comparison? (10)
4. Explain Warp knitting machines in detail? (10)

Section-C

5. Write a brief note on- single jersey, rib, purl and tuck stitches? (10)
6. Write in detail about knitted fabrics defects and its quality control? (10)

Section-D

7. Write in detail about Integral garments? (10)
8. Explain Cut-Stitch shaped garments in detail? (10)

Exam Code: 119703

Paper Code: 3185

Programme: Bachelor of Science (Home Science)

Semester – III

Course Title: Basic Nutritional Biochemistry

Course Code: BHSL-3083

Time Allowed: 3 Hours

Max. Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

Section A

1. A) What are monosaccharides? Draw the structure of any two pentose and hexose sugars.
B) Write the structural formula of sucrose and maltose.
C) What are reducing sugars? Draw structure of any one reducing sugar.
(5 +6 +3 marks)
2. Write a note on structural and storage polysaccharides present in plants and animals? (14 marks)

Section B

3. A) What is rancidity of fat? How can we prevent it?
B) What are essential fatty acids? Draw their structures?
C) Define saponification value.
(4+7 +3 marks)
4. Write a note and draw the structure of biologically important triglycerides and phospholipids? (14 marks)

Section C

5. Write a note on TCA cycle? (14 marks)
6. Write a note on
A) Gluconeogenesis B) β -Oxidation of fatty acids (7+7 marks)

Section D

7. Discuss metabolism and regulation of calcium and phosphorus? (14 marks)
8. Write a note on
A) Metabolism of Iron in human body
B) Metabolism of magnesium (8+6 marks)

Exam Code: 119703

Paper Code: 3183

Programme: Bachelor of Science (Home Science)

Semester – III

Course Title: Introduction to Extension Education and
Community Development

Course Code: BHSL-3281 ✓

Time Allowed: 3 Hours

Max. Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

Section – A

1. Explain education and its types in detail. Give brief explanation of Extension services in Agriculture Universities?
2. Briefly describe the popular extension activities in India?

Section – B

3. What is the role of extension education in rural development? Also explain the role of extension worker?
4. Explain in detail the fields covered under extension education?

Section – C

5. a) Which techniques should be followed for motivation?
b) How we can motivate the extension workers. Explain with the help of model of motivation?
6. What are the objectives of Community Development and Philosophy behind it?

Section – D

7. Which voluntary organizations are involved in the Community Development? Also explain their role in it?
8. Write notes on the following:
 - a) Minimum need Programme
 - b) Family Planning Programme

Exam Code: 119703

Paper Code: 3184

Programme: Bachelor of Science (Home Science)

Semester – III

Course Title: Developmental Stages upto Childhood

Course Code: BHSL-3282 ✓

Time Allowed: 3 Hours

Max. Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

Section – A

1. Explain all the important developmental tasks from infancy to childhood in brief.
2. Write short note on:
 - a. Cardio Vascular system of child
 - b. Skeletal growth from infancy to childhood.

Section – B

3. What do you mean by motor development? Explain all the factors affecting motor development.
4. What do you understand by language development? Write down the stages of language development.

Section – C

5. How play materials be selected in the nursery school for children? What are the different criterion of selection?
6. Define moral development. What roles does peer influence play in shaping moral values?

Section – D

7. What are Emotions? Explain the characteristics of emotions.
8. What is early childhood care and education (ECCE)? How does ECCE differ traditional childcare?

Exam Code: 119703

Paper Code: 3186

Programme: Bachelor of Science (Home Science)

Semester – III

Course Title: Housing

Course Code: BHSM-3284 ✓

Time Allowed: 3 Hours

Max. Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

SECTION -A

1. What are various types of houses? Discuss any five of them.
2. How do the housing needs of a family differ? State various factors which affect housing needs of a family?

SECTION-B

3. How would you economize the construction of a house?
4. Discuss briefly principles of house planning.

SECTION-C

5. Write an explanatory note on low cost and eco-friendly innovative building materials.
6. Write a detailed note on materials used for the construction of 'walls' and 'Floors'.

SECTION-D

7. Write a detailed note on building Buy Laws used for house construction and terminology used.
8. Briefly explain the various housing financing agencies for lending home loans.

Exam Code: 119703

Paper Code: 3187

Programme: Bachelor of Science (Home Science)

Semester: III

Course Title: Meal Management

Course Code: BHSM -3285

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

Section – I

1. What is Balanced Diet? What are the factors affecting balanced diet?
2. Define RDA. Write its Objectives.

Section – II

3. What is Meal Planning? What are the factors affecting meal planning?
4. What are the nutritional requirements for an adult male who is a heavy worker?

Section – III

5. What are the Physiological changes that take place during Pregnancy?
6. Plan a day diet for an old man and also write its nutritional requirements.

Section – IV

7. What are the nutritional requirements of a school going boy?
8. Write the advantages and disadvantages of Breast Feeding.

Exam Code: 119703

Paper Code: 3188

Programme: Bachelor of Science (Home Science)

Semester - III

Course Title: Textile Science

Course Code: BHSM-3286

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions in all, selecting atleast one question from each section. Each question carries 10 marks.

Section A

- Q1 (a) Explain the manufacture of cotton.
(b) Explain the physical and chemical properties of wool.
- Q2 (a) Classify the textile fibers according to source.
(b) Explain the manufacture and properties of polyester.

Section B

- Q3 Explain any five types of Novelty weaves.
Q4 Explain the process of Felting and Bonding.

Section C

- Q5 (a) What is the importance of finishing?
(b) What are the different types of bleaches? What are their uses.
- Q6 (a) Explain any three functional finishes.
(b) Explain the process of napping, sizing and desizing.

Section D

- Q7 Explain the difference between dyeing and printing and types of printing.
- Q8 (a) What are the principles and uses of dry cleaning.
(b) Explain the principles of washing.

Exam code: 118003

Paper Code: 3258

Programme: Bachelor of Science (Information Technology)

Semester: III

Course Title: E-BUSINESS

Course Code: BITL-3114

Time Allowed: 3 Hours

Max. Marks: 70

Note: Attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 14 marks.

SECTION - A

- Q.1. Explain E-Commerce framework. (14)
Q.2. Explain the Role of website in an E-Business set up. (14)

SECTION - B

- Q.3. Explain various Components and working of EDI. (14)
Q.4. Explain EDI Service providers in India. (14)

SECTION - C

- Q.5. Explain the Legal and Regulatory Issues related to E-Commerce. (14)
Q.6. What is E-Commerce Security? Explain various Security measures. (14)

SECTION - D

- Q.7. Explain the Role of Information Technology for the success of BPR. (14)
Q.8. What is the usefulness of E-Banking? Explain with Case study. (14)

Exam Code: 116403

Paper Code: 3132

Programme: Bachelor of Arts (Journalism and Mass
Communication) Semester - III

Course Title: History of Broadcasting in India: Policies
and Principles

Course Code: BJML-3311 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

Section-I

1. Discuss Radio as a Mass Medium and also highlight its Advantages and Disadvantages.
2. Explain setup of a radio studio.

Section-II

3. Trace the development of Radio in India with special focus on Vivid Bharti and Commercial Services.
4. Discuss the concept of three tiers of Radio broadcasting.

Section-III

5. Explain guideline for election broadcasting.
6. Write a detailed note on Commercial Codes.

Section-IV

7. Discuss the concept of Prasar Bharti.
8. Explain the significance of Radio in digital age.

1 < m v - II
(For Reappear Candidates Only (2023-24))

Exam Code: 108703

Paper Code: 9314

Bachelor of Arts (Journalism & Mass Communication)

Semester-III

Course Title: Cyber Journalism

Course Code: BJML-3311

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 12 marks.

Section A

1. Write in detail the comparison of cyber media with print & TV mediums?
2. Write short notes on:
 - i. Information Super Highway
 - ii. Cyber Space

Section B

3. Discuss in detail the impact of Web Journalism in today's world?
4. What are the steps that one needs to follow while writing for Web Media?

Section C

5. How Globalization has impacted Web Journalism?
6. Write a detailed note on the future of Web Journalism.

Section D

7. Write short notes on:
 - i. e- Paper
 - ii. Fake News
8. How New Media can act as a source of misinformation for the masses.

Exam Code: 116403

Paper Code: 3133

**Programme: Bachelor of Arts (Journalism and Mass
Communication) Semester - III**

Course Title: Development and Communication

Course Code: BJML-3312

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 14 marks.

Section A

- Q1. Define the concept of development and its historical background in India.
- Q2. What are the processes of development? Explain with examples.

Section B

- Q3. What is the bottom-up approach of development? Discuss in detail.
- Q4. What do you understand by development support for communication approach? Explain.

Section C

- Q5. What is the significance of development communication? Discuss with examples.
- Q6. Discuss the role of radio in dealing with development issues.

Section D

- Q7. What do you understand by the concept of institutional development? Explain.
- Q8. How can the inequality be reduced? Explain in detail.

Exam Code: 116403

Paper Code: 3134

Programme: Bachelor of Arts (Journalism and Mass
Communication) Semester - III

Course Title: Cyber Journalism

Course Code: BJMM-3313

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

Section A

1. Write in detail the comparison of cyber media with print & TV mediums?
2. Write short notes on:
 - i. Information Super Highway
 - ii. Cyber Space

Section B

3. Discuss in detail the impact of Web Journalism in today's world?
4. What are the steps that one needs to follow while writing for Web Media?

Section C

5. How Globalization has impacted Web Journalism?
6. Write a detailed note on the future of Web Journalism.

Section D

7. Write short notes on:
 - i. e- Paper
 - ii. Fake News
8. How New Media can act as a source of misinformation for the masses.

Exam Code: 116403

Paper Code: 3135

Programme: Bachelor of Arts (Journalism and Mass
Communication) Semester - III

Course Title: Reporting and Editing- II

Course Code: BJMM-3314 ✓

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

Section A

1. Write a detailed note on investigative reporting?
2. Write a film review of your choice.

Section B

3. Write in detail the various functions of News Bureau?
4. Write short notes on:
 - i. Public Sector Undertakings beat
 - ii. Political beat

Section C

5. Write a detailed note on the structure and purpose of Editorial page?
6. Explain in detail the importance of features in the newspaper.

Section D

7. Differentiate between broadsheet & tabloid?
8. Write short notes on:
 - i. Columnist
 - ii. Syndicate Writers

Exam Code: 116403

Paper Code: 3136

Programme: Bachelor of Arts (Journalism and Mass
Communication) Semester - III

Course Title: News Feature Writing

Course Code: BJMM-3315

Time Allowed: 3 Hours

Max Marks: 50

Note: Attempt five questions in all, selecting at least one question from each section. Fifth question may be attempted from any section. Each question carries 10 marks.

Section A

1. Differentiate between a feature and a news report.
2. Write in detail about the various types of feature.

Section B

3. What role does research plays in feature writing.
4. Explain in detail the Primary and Secondary sources of information for feature writing.

Section C

5. Write a detailed note on the various elements of a feature.
6. Explain in detail the importance of Human interest story in feature writing.

Section D

7. What are the tools and techniques of writing a feature story?
8. Describe in detail the various types of Feature leads.

Exam Code: 509703
(20)

Paper Code: 3193

**Programme: Bachelor of Science (Medical Laboratory
Technology)
Semester-III**

Course Title: Basics of Microbiology-I

Course Code: BMLL-3065 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note:- Attempt five questions in all, selecting one question from each of the four sections (A-D). The fifth question may be attempted from any section. All questions carry equal (14) marks.

Section A

1. a. Describe Whittaker's Five Kingdom Classification system. Mention the basis of classification and examples from each kingdom. 10
b. Explain the theory of spontaneous generation. 4
2. a. Discuss Koch's postulates and their importance in proving the germ theory of disease. 10
b. Write a short note on the methods used to identify microorganisms. 4

Section B

3. a. Explain the principle and working of a compound microscope. 10
b. Write a note on acid fast staining. 4

4. a. Discuss the principle and steps involved in pour plate technique used for microbial isolation. 10
- b. What is dry heat sterilization? Describe its principle and uses. 4

Section C

5. a. Explain selective methods used for isolation of microorganisms. 10
- b. What is a pure culture? Explain its importance in microbiology. 4
6. a. Briefly explain the different methods used for maintenance and preservation of microbial cultures, 10
- b. Write a short note on culture collection centres and their role in microbiology. 4

Section D

7. a. Discuss the effect of temperature on the growth of microorganisms and explain how psychrophiles and hyperthermophiles survive under extreme conditions. 10
- b. Write briefly about growth factors and their role in microbial growth 4
8. a. Describe the major nutrients required by microorganisms and their functions. 10
- b. Classify microorganisms based on their oxygen requirements. 4

Exam Code: 509703
(20)

Paper Code: 3192

**Programme: Bachelor of Science (Medical Laboratory
Technology) Semester-III**

**Course Title: Introduction to Bacteriology and
Virology**

Course Code: BMLL-3064 ✓

Time Allowed: 3 Hours

Max Marks: 70

Instructions to Candidates:- The students are required to attempt five questions in all, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 14 marks

Section A

1. a. Discuss the significant contributions of Louis Pasteur and Robert Koch to the field of microbiology. (7)
b. Write a comprehensive note on different methods of sterilization used in a laboratory. Differentiate between disinfection & sterilization? (7)
2. a. Describe the principle and procedure of Gram's staining of bacteria? What is ZN staining? (7)
b. Explain the various methods used for the isolation and identification of bacteria from a mixed culture? (7)

Section B

3. Describe in detail the morphology, cultural characteristics, pathogenesis, and laboratory diagnosis of *Staphylococcus aureus* & *Helicobacter pylori*? (14)
4. Write a detailed account of *Mycobacterium tuberculosis* & *Treponema palidum*, covering its classification, biochemical reactions, the disease it causes, and its laboratory diagnosis. (14)

Section C

5. What are bacteriophages? Describe the lytic and lysogenic cycles of viral replication with the help of well-labeled diagrams. (14)
6. Explain the general characteristics and morphology of a virus. Discuss the principles behind serological and molecular-based methods for the detection of viruses. (14)

Section D

7. Explain the "one-step growth curve" for a virus, detailing each phase. What are cytopathogenic effects (CPE), and how do they help in virus identification? (14)
8. Choose one of the following viral diseases: AIDS or Dengue. Describe its causative agent, mode of transmission, pathogenesis, and methods for laboratory diagnosis and treatment. (14)

Exam Code: 509703
(20)

Paper Code: 3189

**Programme: Bachelor of Science (Medical Laboratory
Technology)
Semester-III**

Course Title: Hematology-II

Course Code: BMLL- 3481 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note: Candidates are required to attempt 5 questions (each carrying 14 marks) selecting at least one question from each section. The 5th question can be attempted from any section.

Section A

1. Discuss oxygen transport in detail. 14
2. How does carbon dioxide transport take place in blood. 14

Section B

3. Discuss in detail the fundamental principles and practical applications of staining methods used in hematology. 14
4. Write a detailed note on special stains used for smear preparation. 14

Section C

5. Discuss various techniques used in blood cross matching. 14
6. Discuss in detail various blood transfusion reactions. 14

Section D

7. Write detailed note on the following: (7+7)
 - a) Regulatory aspects followed in blood banking
 - b) Preparation for transfusion of blood
8. Write a detailed note on the clinical significance of bone marrow techniques. 14

Exam Code: 509703
(20)

Paper Code: 3190

**Programme: Bachelor of Science (Medical Laboratory
Technology)
Semester-III**

Course Title: Pathology-I

Course Code: BMLL-3482

Time Allowed: 3 Hours

Max Marks: 70

Note:- Attempt five questions in all, Select at least one question from each section (A to D) respectively. Fifth question may be attempted from any section (A-D). Each question carries 14 marks. Write legibly and draw well labeled diagrams wherever necessary.

Section-A

1. Explain the principle behind Fluorescence microscopy, specifically focusing on the role of fluorophores and use of filters in generating final image. (14)
2. (a) Define Metachromasia and explain the specific chemical properties of metachromatic dyes that allow them to exhibit this phenomenon.
(b) What is the enzymatic target of the Acid phosphatase stain and what specific cellular structure is this technique typically used to identify?

(7+7)

Section-B

3. (a) Differentiate between Gastritis and Peptic ulceration in terms of their anatomical location and primary cause.
(b) Define a hernia and list three different causes or types of intestinal obstructions. (7+7)
4. Describe the basic pathology of Appendicitis including its primary cause and potential complications if left untreated. (14)

Section-C

5. (a) Explain the relationship between gallstones and the symptom of jaundice.
(b) What is Hepatocellular carcinoma and what chronic liver conditions are the most significant risk factors for its development? (7+7)
6. Define fatty liver disease and distinguish between its two primary forms alcoholic and non-alcoholic based on their underlying cause. (14)

Section-D

7. What is the primary functional deficit that defines Heart Failure and what are two common symptoms a patient with this condition might experience? (7+7)
8. Define atheroma and explain how the development of multiple atheromas leads to the condition known as atherosclerosis. (14)

Exam Code: 509703
(20)

Paper Code: 3191

**Programme: Bachelor of Science (Medical Laboratory
Technology)
Semester-III**

Course Title: Clinical Biochemistry-I

Course Code: BMLL-3483

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions in all, selecting at least one question from each section (A to D). Fifth question can be attempted from any section. Each question carries 14 marks. Draw diagrams wherever necessary.

Section A

1. What do you mean by diagnosis? How Clinical biochemistry play role in diagnosis of diseases?
(14)
2. Explain in detail the collection, processing and handling of tissues in clinical laboratory.
(14)

Section B

3. Explain in detail the composition and importance of Colostrum.
(14)
4. Explain in detail the composition and importance of Amniotic fluid.
(14)

Section C

5. Explain the role of blood glucose in human body? Write a detailed note on its Normal range and procedure to for its assessment. (14)
6. What do you mean by diabetes insipidus and its complications? Explain in detail. (14)

Section D

7. Explain the physiology of different proteins in blood. Explain the quantitative assessment of proteins in blood. (14)
8. How lipids and creatinine are assessed quantitatively in blood? (14)

(For Reappear Candidates Only (2023-24))

Exam Code: 112413

Paper Code: 9331

Programme:- Bachelor of Science (Honours) Mathematics (Semester-III)

Course Title: Calculus-III

Course Code: BOML-3331

Time Allowed:- 3 Hours

Max. Marks:- 80

Note:- Attempt five questions in all selecting at least one question from each section. Fifth question can be attempted from any section. Each question carries equal marks.

Section-A

1(a) Using definition, Prove that $\lim_{(x,y) \rightarrow (3,-1)} (3x + y^2) = 10$ (8)

(b) Examine the following function for continuity at origin

$$\begin{cases} xy \frac{(x^2-y^2)}{x^2+y^2} & \text{if } (x,y) \neq (0,0) \\ 0 & \text{if } (x,y) = (0,0) \end{cases} \quad (8)$$

2(a) Verify $\frac{\partial^2 f}{\partial y \partial x} = \frac{\partial^2 f}{\partial x \partial y}$ where $f = \log \frac{x^2+y^2}{xy}$ (8)

(b) Verify Euler Theorem for the function $z = x^4 \log \frac{y}{x}$ (8)

Section-B

3 (a) If $z = e^{xy^2}$, $x = t \cos t$, $y = t \sin t$ find $\frac{dz}{dt}$ at $t = \frac{\pi}{2}$ by chain rule. (8)

(b) if $u_1 = \frac{x_2 x_3}{x_1}$, $u_2 = \frac{x_3 x_1}{x_2}$, $u_3 = \frac{x_1 x_2}{x_3}$ then find Jacobians of u_1, u_2, u_3 w.r.t x_1, x_2, x_3 (8)

4 (a) Find the constants a, b and c so that the vector $(x + 2y + az)\hat{i} + (bx - 3y - z)\hat{j} + (4x + cy + 2z)\hat{k}$ is irrotational. (8)

(b) Let $g: R^3 \rightarrow R^2$ be defined by $g(x, y, z) = (x, e^z \sin(x + y))$ and $f: R^2 \rightarrow R$ be defined by $f(\alpha, \beta) = \alpha^2 + \beta^2$ then find $F_x(x, y, z)$ where $F = f \circ g$ (8)

Section-C

5(a) Find the extreme value of the following function

$$f(x, y) = (1 - x - y)x^3 y^2 \quad (8)$$

(b) Find the maximum and minimum value of $x^2 + y^2$ subject to the condition $3x^2 + 4xy + 6y^2 = 140$ (8)

6 (a) State and prove Taylor's theorem for functions of two variables. (8)

(b) Use Taylor's theorem for functions of two variables, expand $xy^2 + 3x - 2$ in powers of $x+2$ and $y-1$ (8)

Section-D

7 (a) Evaluate $\iint y dx dy$ over the region bounded by $y^2 = 4x$ and $x^2 = 4y$ (8)

(b) Evaluate $\int_0^1 \int_{x^2}^{2-x} xy dy dx$ by reversing the order of integration. (8)

8 (a) Compute the integral $\iiint xyz dx dy dz$ over a domain bounded by $x=0$, $y=0$, $z=0$ and $x+y+z=1$ (8)

(b) Using double integration, Find the area bounded by the curves $y = 2 - x^2$ and $y = x$ (8)

(For Reappear Candidates of Session: 2023-24)

Exam Code: 112413

Paper Code: 9332

Bachelor of Science (Honours) (Mathematics) Semester-III
Course Title: Ordinary Differential Equations and Special Functions

Course Code: BOML-3332

Time Allowed: 3 Hours

Max. Marks: 80

Note: Attempt five questions in all selecting at least one from each section. Fifth question can be attempted from any section. Each question carries 16 marks.

Section-A

- 1 (a) Find the necessary and sufficient condition that the equation $M dx + N dy = 0$ (where M and N are functions of x and y with the condition that $M, N, \frac{\partial M}{\partial y}, \frac{\partial N}{\partial x}$ are continuous functions of x and y) may be exact.

(8)

- (b) Find the complete primitive and singular solution of $3p^2 e^y - px + 1 = 0$

(8)

- 2 (a) Find the orthogonal trajectory of $r^n = a^n \cos n\theta$

(8)

- (b) Solve $(D^2 - 3D + 2)y = \cosh x$

(8)

Section-B

- 3 (a) Solve $(x^2 D^2 - 3xD + 5)y = x^2 (\log x), x > 0$

(8)

- (b) Solve $\frac{d^2 y}{dx^2} + a^2 y = \sec ax$ using variation of parameters

(8)

- 4 (a) Solve $y'' + x^2 y = 1 + x + x^2$ in powers of x

(8)

- (b) Solve $\frac{d^2 y}{dx^2} + (x-1)^2 \frac{dy}{dx} - 4(x-1)y = 0$ about $x = 1$

(8)

Section-C

- 5 (a) Show that when n is a positive integer, $J_n(x)$ is the coefficient of z^n in the expansion of $e^{\left(\frac{x}{2}\right)\left(z - \frac{1}{z}\right)}$ in ascending and descending powers of z . Also show that J_n is coefficient of z^{-n} multiplied by $(-1)^n$ in the expansion of the above expression.

(10)

- (b) Evaluate $\int x^3 J_3(x) dx$

(6)

- 6 (a) Prove recurrence relation $\frac{d}{dx} \{x^n J_n(x)\} = x^n J_{n-1}(x)$

(8)

- (b) Prove that $\cos(x \sin \phi) = J_0 + 2 \cos 2\phi \cdot J_2 + 2 \cos 4\phi \cdot J_4 + \dots$

(8)

Section-D

- 7 (a) Check whether $P_n(x) = \frac{1}{2^n n!} \frac{d^n}{dx^n} (x^2 - 1)^n$

(8)

- (b) Prove that $P_n(x) = \frac{1}{\pi} \int_0^\pi \left[x \pm (x^2 - 1)^{\frac{1}{2}} \cos \phi \right]^n d\phi$

(8)

- 8 (a) State and prove generating function for Legendre's polynomial

(8)

- (b) Express $x^4 + 2x^3 + 2x^2 - x - 3$ in terms of Legendre's polynomials.

(8)

(For Reappear Candidates Only (2022-23))

Exam Code: 112413

Paper Code: 9329

Programme: Bachelor of Science (Honours) Mathematics (Semester: III)

Course Title: Linear Algebra

Course Code: BOML-3334 ✓

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions in all selecting at least one question from each section. The fifth question can be attempted from any section. Each question carries 16 marks.

Section-A

- (a) Define a vector space and its subspace and give examples of each.
- (b) Prove or disprove that the intersection of two subspaces of a vector space is also a subspace. [8 X 2=16]
- (a) Determine whether or not the set of vectors (1, 2, 3), (2, 4, 6), (1, 1, 1) in $\mathbb{R}^3$ are linearly independent.
- (b) Justify whether or not that the union of two subspaces is a subspace only if one is contained in the other. [8 X 2=16]

Section-B

- (a) Define basis and dimension of a vector space with an example.
- (b) Justify whether or not that any two bases of a finite-dimensional vector space have the same number of element. [8 X 2=16]
- (a) Let U and W be subspaces of $\mathbb{R}^4$ given by $U = \{(a, b, c, d) : b + c + d = 0\}$ and $W = \{(a, b, c, d) : a + b = 0, c = 2d\}$. Find basis and dimension of $U \cap W$.
- (b) Define quotient space and direct complement of subspace. Give one example for each. [8 X 2=16]

Section-C

- (a) Define a linear transformation. Show that $T: \mathbb{R}^2 \rightarrow \mathbb{R}^2$ defined by $T(x_1, x_2) = (x_2, 0)$ is linear.
- (b) Find a linear transformation $T: \mathbb{R}^3 \rightarrow \mathbb{R}^3$ whose range space is spanned by (1, 0, 1) and (0, 1, 1). [8 X 2=16]
- (a) State and prove the Rank–Nullity Theorem.
- (b) Find the matrix of $T(x, y) = (3x - 2y, x + 5y)$ relative to the basis $B = \{(1, 3), (3, 4)\}$. [8 X 2=16]

Section-D

- (a) Define an elementary matrix and give an example.
- (b) Prove or disprove that the elementary row operations preserve the rank of a matrix. [8 X 2=16]
- (a) Reduce the following matrix to its normal form and find its rank.

$$\begin{bmatrix} 1 & 2 & 3 \\ 2 & 3 & 4 \\ 3 & 5 & 7 \end{bmatrix}$$

- (b) Solve the system of equations:

$$x + 2y - z = 1, 2x + y + 2z = 3, x - 4y + 7z = 4.$$

[8 X 2=16]

Exam Code: 121303
(40)

Paper Code: 3176

Programme: Bachelor of Science
Semester-III

Course Title: Botany (Diversity of Phanerogams)

Course Code: BSML-3075 ✓

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions in all, selecting atleast one question from each section and fifth question can be attempted from any section. All questions carry equal (14) marks.

SECTION-A

1. Discuss the characteristic features and evolutionary significance of primitive angiosperms. Give suitable examples. 14
2. Explain the reproductive structures and life cycle of Cycas with well-labeled diagrams. 14

SECTION-B

3. Define identification keys. Describe various types of identification keys used in plant taxonomy with suitable examples. 14

4. Describe the salient features of Bentham and Hooker's system of classification. Discuss its merits and demerits.

7

SECTION-C

5. Describe the distinguishing morphological and floral features of the family Apocynaceae with suitable examples. 14
6. Describe the general characteristics and floral details of the family Poaceae. Add a note on the structure of the spikelet. 14

SECTION-D

7. Describe the distinguishing features, floral characteristics and economic importance of the family Ranunculaceae. 14
8. Write a detailed account of the family Asteraceae, highlighting its inflorescence, floral formula, and economic importance. 14

Paper Code: 3175

Programme	Exam Code	Course Code
Bachelor of Science (Medical)	121303	BSML-3084 ✓
Bachelor of Science (Non-Medical)		BSNL-3084 ✓

Semester-III

**Course Title: Chemistry (Physical Chemistry-I:
States of Matter and Electrochemistry)
(50)**

Time Allowed: 3 Hours**Max Marks: 70**

Note: Attempt five questions in all, selecting atleast one question from each section. The fifth question may be attempted from any section. Each question carries 14 marks. Use of simple calculators is allowed.

Section-A

1. (a) Distinguish between most probable velocity, average velocity and root mean square velocity?
(3.5)
- (b) Derive Vander waal's equation for n moles of gas and how it explains the behaviour of real gases?
(6.5)
- (c) State postulates of Kinetic Theory of gases?
(4)

2. (a) Define surface tension. Explain the drop number as well as drop weight method for determining the surface tension of a liquid. (7)
- (b) Derive the relationship between P_c , V_c and T_c and Vander Waal's constants 'a' and 'b'? (7)

Section-B

3. (a) How do lyophilic and lyophobic colloids differ from each other? (4)
- (b) Write short notes on
 - (i) Hardy-Schulze rule
 - (ii) Gold Number (5)
- (c) Action of soap is due to micelle formation. Comment? (5)
4. (a) Briefly describe the basic principles of each of following x-ray diffraction methods for study of crystal structure:
 - (i) Laue's method
 - (ii) Powder method (6)
- (b) What are main points of difference between crystalline and amorphous solids? (4)
- (c) Calculate number of atoms per unit cell
 - (i) Simple cubic
 - (ii) Body centered cubic lattice
 - (iii) Face centered cubic lattice
 - (iv) End centered cubic lattice (4)

Section-C

5. (a) What are ideal and non ideal solution? (4)
- (b) Define Van't Hoff factor. How it is used in the determination of degree of association and dissociation of a solute? (6)
- (c) Calculate the osmotic pressure at 0 °C of a 5% solution of urea (Mol. wt=60) ($R = 0.0821$ litre/atm/degree/mol) (4)
6. (a) State Kohlrausch's Law. Why it is called law of Independent migration of ions (3.5)
- (b) The specific conductance of an N/50 of KCl solution at 25 °C is $0.002765 \text{ ohm}^{-1} \text{ cm}^{-1}$. If the resistance of cell containing the solution is 200 ohms, what is the cell constant? (3)
- (c) Give main postulates of Arrhenius theory of ionisation? (4)
- (d) Define specific and equivalent Conductance. How they are related to each other? (3.5)

Section-D

7. (a) Explain "Electrophoretic effect" as used in Debye-Huckel theory of strong electrolytes? (4)
- (b) Predict whether zinc and silver react with 1 N sulphuric acid to give out hydrogen gas or not. Given that standard reduction potentials of zinc and silver are - 0.76 Volt and 0.80 Volt. (4)

(c) Describe the Construction and working of following electrodes:

(i) Hydrogen electrode

(ii) Calomel electrode (6)

8. (a) What are concentration cells? How they are classified into different types? Give in details. (6)

(b) Explain the principle of potentiometric titrations using Acid Base titrations. What are advantages of these titrations? (8)

Exam Code: 121303
(40)

Paper Code: 3174

Programme: Bachelor of Science
Semester-III

Course Title: Zoology (Diversity of Chordates)

Course Code: BSML-3483

Time Allowed: 3 Hours

Max Marks: 70

Note: Attempt five questions, selecting one question from each section. The fifth question can be attempted from any section. Each question carries 14 marks. Draw neat and well Labelled diagrams wherever required.

Section-A

1. Describe the digestive system and mechanism of feeding and digestion in Herdmania. (14)
2. Discuss in detail the external features of Amphioxus and how these features help it in its mode of life. (14)

Section-B

3. Explain the affinities of Cyclostomata with fishes and higher vertebrates. Why cyclostomes are considered the most primitive living vertebrates? (14)
4. Describe the urinogenital system of Labeo and its functions in both sexes. (14)

Section-C

5. Explain the different modes of respiration in frog.
(14)
6. Describe the arterial and venous system of Uromastix.
(14)

Section-D

7. Explain in detail the respiratory mechanism and organs of respiration in pigeon.
(14)
8. Describe the digestive system of rat and its mechanism of digestion.
(14)

(For Reappear Candidates Only (Session 2024-25))

Exam Code: 121303

Paper Code: 9321

Programme: Bachelors of Science (Semester: III)

Botany (Structure, Development and Reproduction in Flowering Plants-I)

Course Code: BSMM-3075 (I)

Time Allowed: 3 Hours

Max Marks: 40

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 08 marks. Draw labelled diagrams wherever necessary.

SECTION-A

- 1 Describe the various branching patterns found in stems. 8.
- 2 What do you understand by modular growth? Discuss modular growth in shoot. 8.

SECTION-B

- 3 Explain the following:
 - a. Tunica-Corpus theory 4
 - b. Mantle-Core theory 4
- 4 What do you understand by secondary xylem? Discuss its components in detail. 8

SECTION-C

- 5 Explain how the structure of secondary phloem relates to its functions in plants 8
- 6 Write short note on:
 - a. Periderm 4
 - b. Growth Rings 4

SECTION-D

- 7 Describe the arrangement of leaves (Phyllotaxy) in detail. 8
- 8 What is abscission? Discuss the mechanism and physiology of abscission. 8

Exam Code: 121303

Paper Code: 9322

Programme: Bachelor of Science (Semester: III)

Botany (Structure, Development and Reproduction in Flowering Plants-II)

Course Code: BSMM-3075 (II)

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 12 marks. Draw labelled diagrams wherever necessary.

Section-A

- 1 Discuss in detail structural modification of root for storage and respiration. 12
- 2 What is root apical meristem? Describe various theories of root apical meristem. 12

Section-B

- 3 What is Vegetative propagation? Explain various natural methods of vegetative propagation. 12
- 4 Define grafting? Describe the different grafting techniques with suitable diagrams and examples, and discuss the economic significance of grafting. 12

Section-C

- 5 Describe structure and development of female gametophyte in angiosperm. 12
- 6 What is pollination? Describe various methods of cross pollination with suitable examples. 12

Section-D

- 7 What is embryogenesis? Describe the development of embryo in Dicotyledonous plants. 12
- 8 Explain the various strategies of seed dispersal in plants. How does seed dispersal help in survival and distribution of species? 12

(For Reappear Candidates (Old Syllabus 2022-23 and 2023-24))

Exam Code: 103303

Paper Code: 9317

Programme: Bachelor of Science (Semester: III)

Course Title: Chemistry (Organic Chemistry)

Course Code: BSMM/BSNM-3084 (I)

Time Allowed: 3 Hours

Max Marks: 30

Note: Attempt five questions in all selecting at least one question from each section. The fifth question can be attempted from any section. Each question carries 06 marks.

Section A

- Q1. a) What are enantiomers and diastereomers? Explain each term with suitable illustrations. (3)
 b) Compare geometrical isomerism with optical isomerism with suitable example. (3)
- Q2. a) Provide an analysis of the conformations of n-butane using appropriate structural diagrams. (3)
 b) Define chirality. Give examples to explain what is meant by a stereogenic centre and a meso form. (3)

Section B

- Q3. a) Describe how periodic acid (HIO_4) causes cleavage of vicinal diols. (3)
 b) Explain how does the Victor–Meyer method help in identifying primary, secondary, and tertiary alcohols. (3)
- Q4. a) Explain why alcohols exhibit acidic behaviour and comment on the effect of substituents on their acidity. (3)
 b) Discuss the pinacol to pinacolone transformation and present the mechanism involved. (3)

Section C

- Q5. a) Discuss the resonance forms of the phenoxide ion and explain how they influence its acidic strength. (3)
 b) Explain the mechanism of the Reimer–Tiemann formylation reaction. (3)
- Q6. a) Evaluate the acidity of phenol, m-nitrophenol, and p-methoxyphenol, identifying the most acidic compound with reasons. (3)
 b) Describe the Claisen rearrangement reaction and its detailed mechanism. (3)

Section D

- Q7. a) Outline the methods used to synthesize aldehydes from acid chlorides. (3)
 b) Discuss the reaction pathway involved in the Perkin condensation. (3)
- Q8. a) Provide a short explanation of the Wolff–Kishner and Clemmensen reductions and highlight how they differ. (3)
 b) Give brief note on the halogenation reactions of ketones capable of enol formation. (3)

(For Reappear Candidates (Old Syllabus 2024-25))

Exam Code: 103303

Paper Code: 9318

Programme: Bachelor of Science (Semester: III)

Course Title: Chemistry (Organic Chemistry)

Course Code: BSMM/BSNM-3084 (I)

Time Allowed: 3 Hours

Max Marks: 40

Note: Attempt five questions in all selecting at least one question from each section. The fifth question can be attempted from any section. Each question carries 08 marks.

Section A

- Q1. a) What are enantiomers and diastereomers? Explain each term with suitable illustrations. (4)
 b) Compare geometrical isomerism with optical isomerism with suitable example. (4)
- Q2. a) Provide an analysis of the conformations of n-butane using appropriate structural diagrams. (4)
 b) Define chirality. Give examples to explain what is meant by a stereogenic centre and a meso form. (4)

Section B

- Q3. a) Describe how periodic acid (HIO_4) causes cleavage of vicinal diols. (4)
 b) Explain how does the Victor–Meyer method help in identifying primary, secondary, and tertiary alcohols. (4)
- Q4. a) Explain why alcohols exhibit acidic behaviour and comment on the effect of substituents on their acidity. (4)
 b) Discuss the pinacol to pinacolone transformation and present the mechanism involved. (4)

Section C

- Q5. a) Discuss the resonance forms of the phenoxide ion and explain how they influence its acidic strength. (4)
 b) Explain the mechanism of the Reimer–Tiemann formylation reaction. (4)
- Q6. a) Evaluate the acidity of phenol, m-nitrophenol, and p-methoxyphenol, identifying the most acidic compound with reasons. (4)
 b) Describe the Claisen rearrangement reaction and its detailed mechanism. (4)

Section D

- Q7. a) Outline the methods used to synthesize aldehydes from acid chlorides. (4)
 b) Discuss the reaction pathway involved in the Perkin condensation. (4)
- Q8. a) Provide a short explanation of the Wolff–Kishner and Clemmensen reductions and highlight how they differ. (4)
 b) Give brief note on the halogenation reactions of ketones capable of enol formation. (4)

(For Reappear Candidates (Old Syllabus 2022-23 and 2023-24))

Exam Code: 103303

Paper Code: 9315

Programme: Bachelor of Science (Semester: III)

Course Title: Chemistry (Physical Chemistry-II)

Course Code: BSMM/BSNM-3084 (II) ✓

Time Allowed: 3 Hours

Max Marks: 30

Note: Attempt five questions in all selecting at least one question from each section. The fifth question can be attempted from any section. Each question carries 06 marks.

Section-A

- Q:1 (a) Differentiate between adiabatic and isothermal process. (2)
 (b) For an ideal gas show that $PV^\gamma = \text{constant}$ for adiabatic expansion. (4)
- Q:2 (a) Calculate the maximum work obtained by isothermal reversible expansion of 2 moles of N_2 from 10 L to 20 L at 298 K. ($R=8.314 \text{ J/K/mol}$) (4)
 (b) Derive Kirchoff's equation for reactions carried out at constant pressure and constant volume. (3)

Section-B

- Q:3 (a) State second law of Thermodynamics. (2)
 (b) Describe expression for entropy change on mixing of ideal gases. (4)
- Q:4 (a) State entropy and give its units? (4)
 (b) Describe in detail Carnot Cycle for establishing the maximum convertibility of heat into work. (2)

Section-C

- Q:5 (a) State Nernst Heat Theorem (2)
 (b) Derive the following relationships: (4)
 (i) $\Delta G = nRT \ln P_2/P_1$
 (ii) $\Delta G = nRT \ln V_1/V_2$
- Q:6 (a). State and explain Third Law of Thermodynamics. (4)
 (b) Show that $K_P = K_C (RT)^{\Delta n}$ (2)

Section-D

- Q:7 (a) Define consolute temperature. What do you mean by upper and lower consolute temperature. (3)
 (b) Differentiate between equilibrium and metastable equilibrium with example. (3)
- Q:8 (a) Draw a labelled diagram of H_2O system. (4)
 (b) State Nernst Distribution Law. (2)

(For Reappear Candidates (Old Syllabus 2024-25))

Exam Code: 121303

Paper Code: 9316

Programme: Bachelor of Science (Semester-III)
 Course Title: Chemistry (Physical Chemistry-II)
 Course Code: BSMM/BSNM-3084 (II) ✓

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 12 marks.

Section-A

- Q:1 (a) Derive expressions W , q , ΔE and ΔH for an ideal gas undergoing isothermal reversible expansion? (6)
 (b) Derive $\Delta H = \Delta E + \Delta n_g RT$. Under what condition $\Delta H = \Delta E$ (6)
 Q:2 (a) Define open, closed and isolated system. (3)
 (b) State and explain Hess's Law of constant heat summation. What are the applications. (3)
 (c) Derive $PV^\gamma = \text{constant}$ for reversible expansion of an ideal gas. (6)

Section-B

- Q:3 (a) What do you mean by entropy? (2)
 (b) Calculate the entropy change for the fusion of 1 mole of solid which melts at 300 K. The latent heat of fusion is 2.51 KJ mol^{-1} (4)
 (c) What is cyclic process? Describe in detail Carnot Cycle for establishing the maximum convertibility of heat into work? (6)
 Q:4 (a) Give two limitations of first law of thermodynamics. (3)
 (b) Prove $\Delta S = C_v \ln T_2/T_1 + R \ln V_2/V_1$
 $\Delta S = C_p \ln T_2/T_1 + R \ln P_1/P_2$ (4.5)
 (c) Explain the entropy changes for a reversible and irreversible process. (4.5)

Section-C

- Q:5 (a) State Third Law of Thermodynamics. (2)
 (b) Prove:
 (i) $(\partial A/\partial V)_T = -P$
 (ii) $(\partial A/\partial T)_V = -S$ (5)
 (c) Derive Clausius- Clapeyron equation (5)
 Q:6 (a) State Nernst Heat Theorem. (3)
 (b) What are reversible and irreversible reactions. State with examples. (4)
 (c) Show that $K_P = K_C (RT)^{\Delta n}$ (5)

Section-D

- Q:7 (a) Define consolute temperature. Explain it with the help of Phenol-water system. (3)
 (b) Discuss Phase diagram of water system in detail. (4)
 (c) State Nernst Distribution Law. How Nernst Distribution Law can modified when the solute undergoes association in one of the solvents. (5)
 Q:8 (a) Derive Gibbs Phase Rule. Explain the terms involved in it. (4)
 (b) Briefly explain the effect of impurities on consolute temperature? (3)
 (c) What do you mean by Component and Degree of freedom (5)

(For Reappear Candidates Only (2023-24))

Paper Code: 9304

Programme	Course Code	Exam Code
Bachelor of Science (Non-Medical) (Semester –III)	BSNM-3333 (I)	121303
Bachelor of Science (Economics) (Semester –III)	BECM-3333 (I)	121303

Course Title: Mathematics (Analysis)

Time Allowed: - 3 Hours

Max Marks: 40

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 08 marks.

Section – A

- 1 (a) Prove that the sequence $\left\{\frac{n^2+1}{2n+3}\right\}$ is unbounded. (4)
 (b) State and prove Squeeze Principle. (4)

- 2 (a) Prove that the sequence $\{a_n\}$ where $a_n = \frac{1}{n+1} + \frac{1}{n+2} + \frac{1}{n+3} + \dots + \frac{1}{2n}$ is convergent. (4)
 (b) Prove that $\left\{\frac{n^3}{n^3+1}\right\}$ is a Cauchy Sequence. (4)

Section – B

- 3 (a) Discuss the convergence or divergence of the series $\sum \frac{1}{n} \tan \frac{1}{n}$ (4)
 (b) State and prove Cauchy's Root Test. (4)
- 4 (a) Show that $\sum \frac{x^n}{n!}$ converges absolutely for all x . (4)
 (b) Use Leibnitz's Test to show that the series $\sum_{n=1}^{\infty} \frac{(-1)^n (n+5)}{n(n+1)}$ converges. (4)

Section – C

- 5 (a) Compute $U(P, f)$, where $f(x) = \sin(x)$ and $P = \left\{0, \frac{\pi}{4}, \frac{2\pi}{3}, \pi\right\}$. (4)
 (b) Evaluate $\int_0^3 f(x) dx$, where $f(x) = \begin{cases} 3x^2 & , 0 \leq x \leq 1 \\ 7 - 4x^3 & , 1 < x < 2 \\ 2x & , 2 \leq x \leq 3 \end{cases}$ (4)
- 6 (a) Prove that every monotonic function defined on a closed interval is Riemann integrable. (4)
 (b) Show that the function f defined by $f(x) = \begin{cases} 0, & \text{when } x \text{ is rational} \\ 1, & \text{when } x \text{ is irrational} \end{cases}$ is not integrable on any interval. (4)

Section – D

- 7 (a) Discuss the convergence of the integral $\int_0^{\frac{\pi}{2}} \frac{\cos x}{x^2} dx$ (4)
 (b) Show that $\int_0^{\infty} \frac{\sin x}{x} dx$ is convergent by using Dirichlet's Test. (4)
- 8 (a) Show that $\int_0^{\frac{\pi}{2}} \sqrt{\tan \theta} d\theta = \frac{\pi}{\sqrt{2}}$ (4)
 (b) Evaluate $\frac{6 \Gamma\left(\frac{8}{3}\right)}{5 \Gamma\left(\frac{2}{3}\right)}$ (4)

(For Reappear Candidates Only (2023-24))

Paper Code: 9305

Programme	Course Code	Exam Code
Bachelor of Science (Non-Medical) (Semester –III)	BSNM-3333 (II)	121303
Bachelor of Science (Economics) (Semester –III)	BECM-3333 (II)	121303

Course Title: Mathematics (Analytical Geometry)**Time Allowed: - 3 Hours****Max Marks: 40**

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 08 marks.

Section-A

Q1 (a) Does the equation $3y^2 - 3x^2 - 8xy - 29x + 3y - 18 = 0$ represent a pair of straight lines. If yes, find the point of intersection.

(b) Find the angle between the lines $4x^2 - 24xy + 11y^2 = 0$. (4, 4)

Q2 (a) Transform to parallel axes through the point $(1, -2)$ the equation $y^2 - 4x + 4y + 8 = 0$.

(b) Find the coordinates of the point $(-2, 5)$ when the axis are rotated through 30° , origin being unchanged. (4, 4)

Section-B

Q3 (a) Find the locus of mid points of the chords of the parabola $y^2 = 4ax$ which touches the circle $x^2 + y^2 = a^2$.

(b) Define Pole with respect to a parabola. Find the pole of the line $2x - 3y = 2a$ with respect to parabola $y^2 = 4ax$. (4, 4)

Q4 (a) Find the equation of the normal to the parabola $y^2 = 12x$ which is perpendicular to the line $x - 3y + 6 = 0$.

(b) Find the vertex, focus, axis, directrix of the parabola $x^2 + 2y + 4x = 0$. (4, 4)

Section-C

Q5 (a) Classify and identify the conic $x^2 - 2xy + y^2 - 3x + y - 2 = 0$.

(b) Find the equation of the chord of contact of tangents from the point (x_1, y_1) to the hyperbola $\frac{x^2}{a^2} - \frac{y^2}{b^2} = 1$. (4, 4)

Q6 (a) Check whether the line $x + 2y - 4 = 0$ touches the ellipse $3x^2 + 4y^2 = 12$ or not.

(b) Find the equation of the ellipse whose centre is origin, and which passes through the points $(2, 2)$ and $(1, 4)$.
(4, 4)

Section-D

Q 7 (a) Find the tangent plane to the sphere $x^2 + y^2 + z^2 - 4x + 2y - 6z + 5 = 0$, which is parallel to the plane $2x + 3y = z$.

(b) Find the equation of the radical axis of the spheres $x^2 + y^2 + z^2 + 2x + 2y + 2z + 2 = 0$,
 $x^2 + y^2 + z^2 + 4y = 0$ and $x^2 + y^2 + z^2 + 3x - 2y + 8z + 6 = 0$. (4, 4)

Q8 (a) Prove or disprove that the planes $x - y + 2z = 3$, $x + 2y + 3z = 5$ and $3x - 4y - 5z + 13 = 0$ meet at a point. If yes, find the point.

(b) Find the angle of intersection of the spheres $x^2 + y^2 + z^2 - 4 = 0$ and

$$x^2 + y^2 + z^2 - 2x - 2y = 0. \quad (4, 4)$$

Paper Code: 3177

Programme	Exam Code	Course Code
Bachelor of Science (Non-Medical)	121303	BSNL-3395
Bachelor of Science (Computer Science)		BCSL-3395

Semester-III

Course Title: Physics (Statistical Physics and Thermodynamics)
(40)

Time Allowed: 3 Hours

Max Marks: 70

Note: Candidates are required to attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any Section. Each question carries 14 marks. Students can use Non-Scientific calculators or logarithmic tables.

Section A

- (a) Discuss the distribution of n distinguishable particles in k compartments of different sizes, which are further sub divided into cells of equal a priori probability.

(7)

- (b) If n similar coins are tossed simultaneously for a large number of times. Prove that the probability of getting r heads up is

$$P(r, n-r) = \frac{n!}{r!(n-r)!} \times \frac{1}{2^n}$$

Show that probability $P(r, n-r)$ of a macrostate $(r, n-r)$ is maximum when $r = n/2$. (7)

2. (a) Prove that for a dynamic system, the fraction of total time that a system spends in any particular macrostate is proportional to the thermodynamic probability for that state. (7)

(b) In a system of 8 distinguishable particles are distributed in 2 compartments with equal a priori probability. Calculate the probabilities of macrostates (4,4) and (2,6). (3)

(c) 5 different objects are to be arranged in 3 compartments of a box. (i) Calculate the total number of ways in which this can be done, assuming that there is no restriction on the number of particles that can go into any compartment. (ii) Also calculate the probability for distribution (2,1,2). (4)

Section B

3. Show that the FD distribution law for continuous energies is

$$n(u) du = \frac{3}{2} n u_f^{-3/2} \cdot \frac{u^{1/2}}{e^{\frac{(u-u_f)}{kT}} + 1} \cdot du. \text{ Also find the average energy of an electron at 0K.} \quad (14)$$

4. Draw the spectral energy density $E(\lambda)$ as a function of wavelength λ for a black body. What is the region of operation for

(a) Wien's radiation law

- (b) Rayleigh-Jeans formula for this blackbody radiation?
(14)

Section C

5. Discuss the thermodynamics of a thermocouple. Show thermodynamically that

$$\sigma_a - \sigma_b = T \frac{d^2 E}{dT^2},$$
 where symbols have their usual meanings. (14)
6. What is the Carnot's cycle? On what factors does the efficiency of reversible carnot's cycle depends? What did this lead Lord Kelvin scale to? (14)

Section D

7. Give an account of Joule-Thomson experiment. Show that the change in temperature is given by

$$dT = V(T\alpha - 1) dP / C_p.$$
 Explain the change in temperature in Ideal and Real gases. Define temperature of inversion. (14)
8. State and obtain Maxwell's thermodynamical relation connecting pressure, volume, temperature and entropy in the homogeneous system. (14)

Exam Code: 121303

Paper Code: 9319

Programme: Bachelor of Science (Non Medical and Computer Science) Semester: III

Course Title: Physics (Statistical Physics and Thermodynamics)

Course Code: BSNM/BCSM-3395 (I)

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 12 marks. Use of Non-Scientific calculators and logarithmic tables is allowed.

Section A

1. (a) Discuss the effect of constraints on the system. (3)
- (b) A box is divided into 2 equal halves. 50 molecules are enclosed in this box and they can move freely. Calculate the ratio of the time spent by the system in the most probable macrostate and the macrostate (27, 23). (7)
- (c) What is the meaning of the principle of equal a priori probability? (2)
- 2 (a) Calculate the number of ways of arranging 20 distinguishable particles in 15 cells. There being no restriction on the number of particles that can go into a cell. (4)
- (b) Discuss the distribution of n distinguishable particles in K compartments, which are further sub-divided into cells of equal a priori probability. (8)

Section B

3. Treating an ideal gas as a system governed by classical statistics, derive the Maxwell-Boltzmann law of distribution of molecular speeds. (12)
4. Apply the Fermi Dirac distribution law to derive the energy distribution of free electrons inside a conductor. (12)

Section C

5. (a) Show that the efficiencies of reversible and irreversible heat engines, working between the same two temperatures can never be same. (6)
- (b) Calculate the change in entropy when 1 mole of an ideal gas expands isothermally to four times its initial volume. Given $R = 1.986 \text{ cal K}^{-1} \text{ g}^{-1} \text{ mole}^{-1}$. (6)
6. How does a thermocouple act like a reversible heat engine? Discuss. Derive the expression for the thermoelectric emf developed in it. (12)

Section D

7. Using Maxwell's thermodynamic relations, find expression of $C_p - C_v$ for real as well as ideal gas. (12)
8. Starting from four thermodynamics potentials, derive the Maxwell's thermodynamic relations. (12)

(For Reappear Candidates Only (2024-25))

Exam Code: 121303

Paper Code: 9320

Programme: Bachelor of Science (Semester-III)

Course Title: Physics (Optics and Laser)

Course Code: BSNM/BCSM-3395 (II)

Time Allowed: 3 Hours

Max Marks: 40

Note: Attempt five questions in all, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries 08 marks. Use of Non-Scientific calculators and logarithmic tables is allowed.

Section-A

1. Explain the principle and working of Michelson interferometer. On moving a movable mirror in Michelson Interferometer through $2.3 \times 10^{-4} \text{m}$, 790 fringes are observed to cross the field of view. Calculate λ . (8)
2. a) What do you mean by sustained interference pattern. Derive an expression for net amplitude on superposition of two waves in young double slit interference and derive the conditions of maxima in terms of path difference. (5)
- b) State and prove Stoke's Law (3)

Section-B

3. State and explain Rayleigh's criterion for limit of resolution. Derive an expression for resolving power of microscope and telescope. (8)
4. Explain the concept of Zone plate and prove that it behaves as a convergent lens. Distinguish between Convex lens and Zone plate (8)

Section-C

5. What is double refraction ? How will you produce circular and elliptical polarised light? (8)
6. a) What is Wire grid polarizer? Explain how it can be used to produce polarization of light. (6)
- b) If Brewster angle is 60° , find the refractive index of the material (2)

Section-D

7. a) Explain the principle, construction and working of Nd-YAG and CO_2 laser. (6)
- b) The coherence length for sodium D_2 line is 2.5 cm. Deduce the coherence time t_c (2)
8. a) What are Einstein co-efficients ? Show that they are related as

$$B_{12} = B_{21} \text{ and } \frac{A_{21}}{B_{21}} = \frac{h\omega^2}{\pi^2 c^3}$$
 (5)
- b) What is hologram. Explain the process of recording of hologram (3)