

Paper Code: 5102

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARL-5031 ✓
Bachelor of Science (Medical)	103305	BSML-5031 ✓
Bachelor of Science (Non-Medical)		BSNL-5031 ✓
Bachelor of Science (Computer Science)		BCSL-5031 ✓
Bachelor of Science (Economics)		BECL-5031 ✓
Bachelor of Commerce	108505	BCRL-5031 ✓
Bachelor of Business Administration	105405	BBRL-5031 ✓

Semester- V

Course Title: Basic Punjabi
(50)

Time Allowed: 3 Hours

Max Marks: 40

ਨੋਟ:- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ। ਹਰੇਕ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਜ਼ਰੂਰੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ 8 ਅੰਕਾਂ ਦਾ ਹੈ।

ਸੈਕਸ਼ਨ-1

1. ਲੋਕ ਵਾਰਤਕ ਬਿਰਤਾਂਤ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਉ? (8)
2. ਸਾਹਿਤ ਅਤੇ ਲੋਕ ਸਾਹਿਤ ਬਾਰੇ ਵਿਸਥਾਰਪੂਰਵਕ ਨੋਟ ਲਿਖੋ? (8)

ਸੈਕਸ਼ਨ-II

3. ਸੁਹਾਗ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦਿਆਂ ਇਸ ਤੇ ਨੋਟ ਲਿਖੋ? (8)
4. ਸਿੱਠਣੀਆਂ ਕਿਸ ਨੂੰ ਕਿਹਾ ਜਾਂਦਾ ਹੈ? (8)

ਸੈਕਸ਼ਨ-III

5. ਝੁੰਮਰ ਤੇ ਨੋਟ ਲਿਖੋ? (8)
6. ਭੰਗੜਾ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਉ? (8)

ਸੈਕਸ਼ਨ-IV

7. ਲੋਕ ਕਲਾਵਾਂ ਦੀ ਪਰਿਭਾਸ਼ਾ ਤੇ ਕਿਸਮਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਉ? (8)
8. ਲੋਕ ਖੇਡਾਂ ਦੀ ਪਰਿਭਾਸ਼ਾ ਤੇ ਕਿਸਮਾਂ ਤੇ ਨੋਟ ਲਿਖੋ? (8)

Paper Code: 5104

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARL-5212 ✓
Bachelor of Science (Medical)	103305	BSML-5212 ✓
Bachelor of Science (Non-Medical)		BSNL-5212 ✓
Bachelor of Science (Computer Science)		BCSL-5212 ✓
Bachelor of Science (Economics)		BECL-5212
Bachelor of Commerce	108505	BCRL-5212
Bachelor of Business Administration	105405	BBRL-5212

Semester-V

Course Title: English (Compulsory)

(180)

Time Allowed: 3 Hours

Max Marks: 40

Section A

1. Answer any five questions in 50 words each. Each question carries 2 marks.

- i. What is the role of Dr. Jim Bayllis in "All MY SONS" BY Arthur miller?
- ii. What is the significance of the setting in "All My Sons"?

- iii. Discuss very briefly the relationship between Chris and Ann in "All My Sons".
- iv. Bring out the unique characteristics attributed to the wife in the poem 'The Portrait' by Robert Graves.
- v. What is the theme of the poem 'OZYMANDIAS' by P.B. Shelley.
- vi. Why does Wordsworth regard the world as a sordid boon in his poem "THE WORLD IS TOO MUCH WITH US"?

Section B

2. Answer two questions in 250 words each choosing from the prescribed play. Each question carries 5 marks.

- i. Discuss the theme of ALL MY SONS by Arthur Miller.
- ii. What is the chronological order of events in ' ALL MY SONS' by Arthur Miller.
- iii. Compare the characters of Chris and Joe in All My Sons with reference to moral values and idealism.
- iv. Write a note on the women characters in ALL MY SONS by Arthur Miller.

Section C

3. Answer two questions in 250 words each from the book of poems. Each question carries 5 marks.

- i. In "She Walks in Beauty" the poet tries to invest the lady with multiple beauty. Discuss
- ii. The poem 'In Memorium' deals with the spiritual crisis that has come to afflict modern life. Elaborate.
- iii. What is theme of the poem 'Night of Scorpion'.
- iv. Discuss the title of the poem 'Mirror'.

Section D

4. Sanjay electricals requires a salesman for their company. Candidate should be graduate with minimum two years selling experience. Age should not exceed 28 years. Apply within two weeks with resume to sa54elec@gmail.com. (5)

OR

Montessorie High School Shimla requires hostel warden with minimum 5 years experience in a convent school affiliated to ICSE board. Apply with resume within ten days @mhhs14simla (5)

5. Write a letter to Municipal Corporation regarding the potholes in your colony leading to increased accidents and cases of theft in the area. (5)

OR

Write a letter to the Editor of THE HINDUSTAN TIMES regarding the increasing drug menace in Punjab.

(5)

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Bachelor of Arts	103205	BARL-5421 ✓
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Bachelor of Science (Non-Medical)		BSNL-5421 ✓
Bachelor of Science (Computer Science)		BCSL-5421 ✓
Bachelor of Science (Economics)		BECL-5421 ✓
Bachelor of Commerce	108505	BCRL-5421 ✓
Bachelor of Business Administration	105405	BBRL-5421 ✓

Semester-V

Course Title: Punjabi (Compulsory)

(170)

Time Allowed: 3 Hours

Max Marks: 40

ਨੋਟ : ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਸੈਕਸ਼ਨ ਹਨ । ਹਰ ਸੈਕਸ਼ਨ ਵਿੱਚ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਜਾਣਗੇ । 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 8 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ -I

1. “ਨਿਊਯੀਅਰ” ਕਹਾਣੀ ਦਾ ਸਾਰ ਲਿਖੋ ।
2. “ਖੂਹ ਖਾਤੇ” ਕਹਾਣੀ ਦਾ ਵਿਸ਼ਾ ਸਪਸ਼ਟ ਕਰੋ ।

ਸੈਕਸ਼ਨ -II

3. 'ਏਹੁ ਹਮਾਰਾ ਜੀਵਣਾ' ਨਾਵਲ ਦਾ ਵਿਸ਼ਾ ਸਪਸ਼ਟ ਕਰੋ ।
4. 'ਏਹੁ ਹਮਾਰਾ ਜੀਵਣਾ' ਨਾਵਲ ਦੀਆਂ ਬਿਰਤਾਂਤਕ ਜੁਗਤਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਓ ।

ਸੈਕਸ਼ਨ -III

5. ਕਿਸੇ ਇੱਕ ਵਿਸ਼ੇ 'ਤੇ ਲਗਭਗ 200 ਸ਼ਬਦਾਂ ਵਿੱਚ ਪੈਰ੍ਹੇ ਰਚਨਾ ਲਿਖੋ।
(ੳ) ਵੱਧ ਰਿਹਾ ਪ੍ਰਦੂਸ਼ਣ
(ਅ) ਮਹਿੰਗਾਈ
(ੲ) ਪਰਵਾਸ
6. ਹੇਠਾਂ ਦਿੱਤੇ ਸਰਲ ਅੰਗਰੇਜ਼ੀ ਪੈਰ੍ਹੇ ਦਾ ਪੰਜਾਬੀ ਵਿੱਚ ਅਨੁਵਾਦ ਕਰੋ ।
Games and sports are essential parts of education. Education is the incomplete without them. Every boy and girl ought to take a part in one or the other game. Sports strengthen our body and make us active. They keep us healthy. They teach us several lessons for example, punctuality, discipline, patience and hopefulness. Those boys who keep away from sports often remain sick.

ਸੈਕਸ਼ਨ -IV

7. ਨਾਂਵ ਵਾਕਾਂਸ਼ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦਿਆਂ ਇਸ ਦੀ ਸਥਾਪਤੀ ਦੇ ਅਧਾਰਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਓ ।
8. ਪੰਜਾਬੀ ਵਿੱਚ ਵਾਕਤਮਕ ਜੁਗਤ ਮੇਲ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਓ ।

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Semester - V**Course Title: Punjab History and Culture****Examination Time: 3 Hours****Theory: 40**

Note: Candidates are required to attempt five questions in 600 words, selecting atleast one question from each section. The Fifth question may be attempted from any section. Each question carries 8 marks.

Section - A

1. Discuss the main reforms affected by John Lawrence as chief commissioner of Punjab.
2. Discuss the Events of First Anglo - Sikh war.

Section - B

3. Describe the Education Policy in Punjab from 1849 up to 1947.
4. What do you know about the agriculture development in Punjab under British rule?

Section - C

5. Trace the origin and programme of Singh Sabha Movement in Punjab.
6. Discuss the Ghadar Movement in Punjab.

Section - D

7. Mention the role played by Punjab in Non Co operation Movement in 1920-22.
8. Explain Nankana Holocaust and Jaitu Morcha.

यूनिट-I

1. पंजाब के मुख्य आयुक्त के रूप में जॉन लॉरेस द्वारा प्रभावित प्रमुख सुधारों की चर्चा करें।
2. प्रथम आंग्ल-सिख युद्ध की घटनाओं पर चर्चा करें।

यूनिट-II

3. पंजाब में 1849 से 1947 तक की शिक्षा नीति का वर्णन करें।
4. ब्रिटिश शासन के अधीन पंजाब में कृषि विकास के बारे में आप क्या जानते हैं?

यूनिट-III

5. पंजाब में सिंह सभा आंदोलन की उत्पत्ति और कार्यक्रम का पता लगाएँ।
6. पंजाब में गदर आंदोलन पर चर्चा करें।

यूनिट-IV

7. 1920-22 में असहयोग आंदोलन में पंजाब द्वारा निभाई गई भूमिका का उल्लेख करें।
8. ननकाना नरसंहार और जैतू मोर्चा की व्याख्या करें।

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARL-5026
Bachelor of Science <i>Eco.</i>	103305	BECL-5026

Semester – V

Course Title: Banking (Quantitative Aptitude-I)

Time: 2:00 Hours

Theory: 80

Note: Candidates are required to attempt forty (40) MCQs, selecting at least eight (8) MCQs from each section. The remaining eight (8) MCQs may be attempted from any section. Each question carries 2 marks.

SECTION - A

1. Solve the value $4 - \frac{5}{1 + \frac{1}{3 + \frac{1}{2 + \frac{1}{4}}}}$.

- a) $\frac{1}{7}$
- b) $\frac{1}{9}$
- c) $\frac{1}{8}$
- d) $\frac{2}{8}$

2. Solve $\frac{1}{15} + \frac{1}{35} + \frac{1}{63} + \frac{1}{99} + \frac{1}{143}$.

- a) 0.12
- b) 0.13
- c) 0.11
- d) 0.012

3. $\frac{x}{y} = \frac{6}{5}$ find $\frac{x^2 + y^2}{x^2 - y^2}$.

- a) $\frac{62}{11}$
- b) $\frac{61}{11}$
- c) $\frac{63}{11}$
- d) $\frac{68}{11}$

4. The greatest number of 4 digit which is divisible by 15, 25, 40, 75.

- a) 1800
- b) 9600
- c) 8600
- d) 7600

5. Find the L.C.M. OF the 16, 24, 36, and 54.

- a) 432
- b) 400
- c) 431
- d) 402

6. The H.C.F of 2 numbers is 11 and their L.C.M is 693. If one of the numbers is 77, find the other.

- a) 88
- b) 77
- c) 89
- d) 99

7. Solve $56 \div 14 \times 4 - 316 + x^2 = 100$

- a) 30
- b) 25
- c) 20
- d) 22

8. What value will replace the question mark in the following equation?

$$4\frac{1}{2} + 3\frac{1}{2} + ? + 2\frac{1}{2} = 13\frac{2}{5}$$

- a) $3\frac{2}{5}$
- b) $4\frac{2}{5}$
- c) $2\frac{9}{10}$
- d) $6\frac{3}{12}$

9. Complete the series 3, 8, 15, _____ 35 .

- a) 19
- b) 21
- c) 24
- d) 28

10. Complete the series missing frequency: 625, 5, 125, 25, 25, ? 5.

- a) 5
- b) 25
- c) 125
- d) 625

11. Solve the value $\frac{4+4 \times 18-6-8}{123 \times 6-146 \times 5}=?$

- a) 1
- b) 2
- c) 6.65
- d) 7.75

12. Find the largest number which divides 62, 132 and 237 to leave the same remainder in each case.

- a) 34
- b) 35
- c) 30
- d) 29

13. Simplify:

$$\frac{0.72 \times 0.72 \times 0.72 - 0.39 \times 0.39 \times 0.39}{0.72 \times 0.72 + 0.72 \times 0.39 + 0.39 \times 0.39}$$

- a) 0.333
- b) 0.33
- c) 0.3333
- d) 0.3334

14. $107 \times 107 + 93 \times 93 = ?$

- a) 19578
- b) 19418
- c) 20098
- d) 21908

15. If $a = 4.36$, $b = 2.39$, $c = 1.97$, then the value of $a^3 - b^3 - c^3 - 3abc$ is

- a) 3.94
- b) 2.39
- c) 0
- d) 1

SECTION - B

16. Sulekha bought 36 kg of sugar for Rs. 1,040. She sold it at a profit equal to the selling price of 10 kg of it. What is the selling price (in Rs) for 5 kg of sugar?

- a) 200
- b) 215
- c) 220
- d) 235

17. The average salary of the entire staff in Reliance Company is Rs.15000 per month. The average salary of officers is Rs.45000 per month and that of non-officers is Rs.10000 per month. If the number of officers is 20 then find the number of non-officers in the Reliance Company.
- 160
 - 120
 - 60
 - 180
18. A bank provides a loan of ₹55,000 to a shopkeeper at a 5% compound rate of interest (Compounded annually). After 2 years the amount to be deposited by the shopkeeper is:
- ₹62,526.50
 - ₹65,259.75
 - ₹60,637.50
 - ₹55,825.75
19. The average of 45 numbers is 150. Later it is found that a number 46 is wrongly written as 91, then find the correct average.
- 151
 - 147
 - 149
 - 153
20. On a certain sum of money, the compound interest for 2 years is Rs. 304.5 and the simple interest for the same period of time is Rs. 290. The rate of interest per annum:
- 9%
 - 8%
 - 11%
 - 10%
21. Average of 12 numbers is 15. If a number 41 is also included, then what will be the average of these 13 numbers?
- 16
 - 18
 - 19
 - 17
22. Difference between compound interest and simple interest is Rs. 3375 in 2 years and the rate of interest is 15%. Find the principal amount.
- Rs. 100,000
 - Rs. 150,000
 - Rs. 160,000
 - Rs. 200,000
23. If selling price of an article is $\frac{4}{3}$ of its cost price, the profit in the transaction is :
- $16\frac{2}{3}\%$
 - $20\frac{1}{2}\%$
 - $25\frac{1}{2}\%$
 - $33\frac{1}{3}\%$
24. The average monthly income of P and Q is Rs. 5050. The average monthly income of Q and R is Rs. 6250 and the average monthly income of P and R is Rs. 5200. The monthly income of P is:
- Rs. 3500
 - Rs. 4000
 - Rs. 4050
 - Rs. 5000
25. A man buys a cycle for Rs. 1400 and sells it at a loss of 15%. What is the selling price of the cycle?
- Rs. 1090
 - Rs. 1160
 - Rs. 1190
 - Rs. 1202

26. If the average marks of three batches of 55, 60 and 45 students respectively is 50, 55 and 60, then the average marks of all the students is :
- 53.33
 - 54.68
 - 55
 - None of these
27. A sum of Rs. 1600 gives a simple interest of Rs 252 in 2 years and 4 months. The rate of interest per annum is :
- 6 %
 - $6\frac{1}{4}\%$
 - $6\frac{1}{2}\%$
 - $6\frac{3}{4}\%$
28. Albert buys 4 horses and 9 cows for Rs. 13,400. If he sells the horses at 10 % profit and the cows at 20 % profit, then he earns a total profit of Rs. 1880. The cost of a horse is:
- Rs. 1000
 - Rs. 2000
 - Rs. 2500
 - Rs. 3000
29. Alice suffered a 20% loss by selling the vase at the price of 2880. If she wants to gain a profit of 20%, what should be its selling price?
- Rs. 3500
 - Rs. 4000
 - Rs. 4320
 - Rs. 5600
30. A grocer has a sale of Rs. 6435, Rs. 6927, Rs. 6855, Rs. 7230 and Rs. 6562 for 5 consecutive months. How much sale must he have in the sixth month so that he gets an average sale of Rs. 6500?
- Rs. 4991
 - Rs. 5991
 - Rs. 6001
 - Rs. 6991

SECTION – C

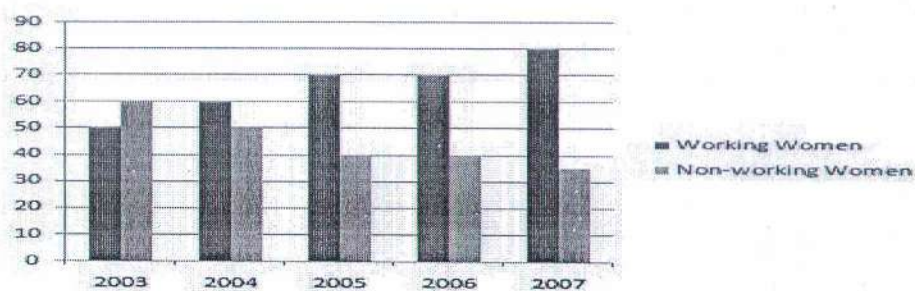
31. What is Ram's present age, if after 8 years his age will be 10 times his age 10 years back?
- 11 years
 - 21 years
 - 12 years
 - 32 years
32. An athlete runs 200 meters race in 24 seconds. His speed is:
- 30
 - 35
 - 37
 - None of these
33. 25 men can do a work in 5 days. Find the amount of work done by 5 men in 10 days.
- 25%
 - 30%
 - 35%
 - 40%
34. The present age of Kabir is 50 years and that of his wife, Sarah is 40 years. How long ago was the ratio of their ages 3:2?
- 20 years
 - 21 years
 - 15 years
 - 30 years

35. 10 men can do a piece of work in 25 days. Find the amount of work done by 35 men in 2.5 days.
- 25%
 - 35%
 - 45%
 - 55%
36. Walking at $\frac{5}{6}$ of its usual speed, a train is 10 minutes too late. Find its usual time to cover the journey.
- 50
 - 60
 - 70
 - 75
37. The present ratio between the ages of Archana and Diksha is 4 : 3. After 5 years, Archana's age will be 25 years. What is the age of Diksha at present?
- 12 years
 - 20 years
 - 15 years
 - 22 years
38. A can complete a work in 12 days and B can complete in 8 days. A works for 8 hours every day while B works for 10 hours every day. If A and B together start working 8 hours per day, in how many days will they complete the work?
- 8 days
 - $\frac{60}{11}$ days
 - $\frac{39}{12}$ days
 - $\frac{15}{8}$ days
39. A Car move at the speed at the speed of 80 km/hr. What is the speed of the car in meters per second?
- 8
 - 20
 - 25
 - None of these
40. The present ages of three persons, Raj, Rajesh and Ravi is in proportions 4: 7: 9. Eight years ago, the sum of their ages was 56. What is the present age of Ravi?
- 22 years
 - 43 years
 - 76 years
 - 36 years
41. A and B can finish a piece of work in 30 days, B and C can finish it in 15 days, C and A in 10 days. Time taken by them together to do this work is?
- 5 days
 - 2 days
 - 7 days
 - 10 day
42. In covering a distance of 30 km, Abhay takes 2 hours more than Sameer. If Abhay doubles his speed, then he would take 1 hour less than Sameer. Abhay's speed is:
- 5 kmph
 - 6 kmph
 - 6.25 kmph
 - 7.5 kmph
43. A father is twice as old as his daughter. If 20 years ago, the age of the father was 10 times the age of the daughter, what is the present age of the father?
- 40 years
 - 32 years
 - 33 years
 - 45 years

44. A can do a work in 3 days. B can do the same work in 6 days and C can do the same work in 7 days. If they work together, in how many days will they take to complete the work?
- 11/10 Days
 - 15/16 Days
 - 14/9 Days
 - 16/7 Days
45. If a person walks at 14 km/hr instead of 10 km/hr, he would have walked 20 km more. The actual distance travelled by him is:
- 50 km
 - 56 km
 - 70 km
 - 80 km

SECTION - D

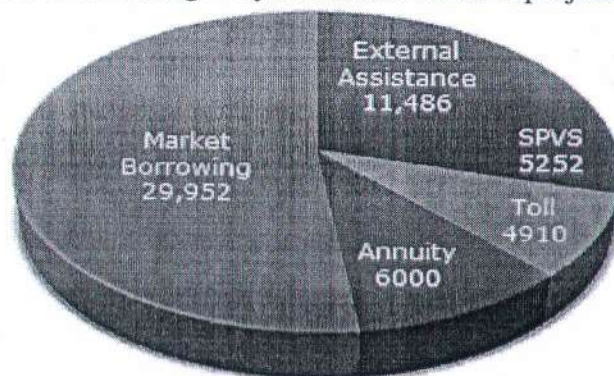
Directions: Study the given bar graph carefully and answer the questions given below:
Survey of Number of Working and Non-working Women Over the Years



46. In which of the following year the difference between the working and non-working women was the highest?
- 2005
 - 2007
 - 2003
 - 2004

Directions (Questions 47 to 51): The following pie-chart shows the sources of funds to be collected by the National Highways Authority of India (NHAI) for its Phase II projects. Study the pie-chart and answers the question that follow.

Sources of funds to be arranged by NHAI for Phase II projects (in crores Rs.)

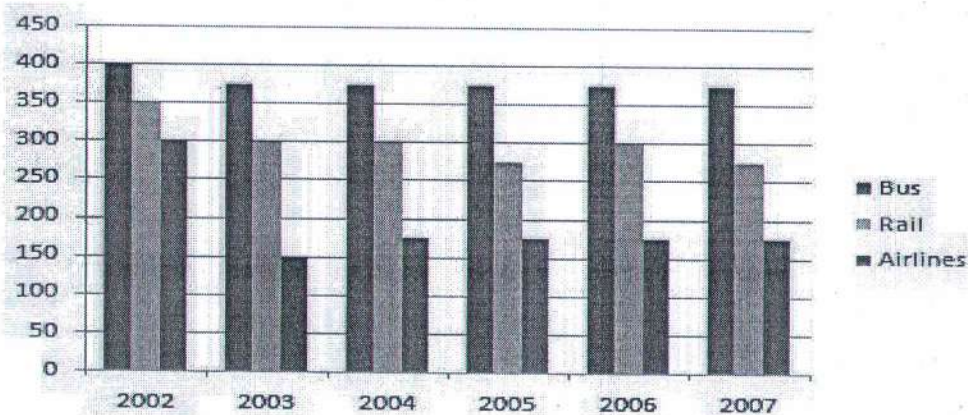


47. Near about 20% of the funds are to be arranged through:
- SPVS
 - External Assistance
 - Annuity
 - Market Borrowing
48. If NHAI could receive a total of Rs. 9695 crores as External Assistance, by what percent (approximately) should it increase the Market Borrowing to arrange for the shortage of funds?
- 4.5%
 - 7.5%
 - 6%
 - 8%

49. If the toll is to be collected through an outsourced agency by allowing a maximum 10% commission, how much amount should be permitted to be collected by the outsourced agency, so that the project is supported with Rs. 4910 crores?
- Rs. 6213 crores
 - Rs. 5827 crores
 - Rs. 5401 crores
 - Rs. 5316 crores
50. The central angle corresponding to Market Borrowing is:
- 52°
 - 137.8°
 - 187.2°
 - 192.4°
51. The approximate ratio of the funds to be arranged through Toll and that through Market Borrowing is
- 2 : 9
 - 1 : 6
 - 3 : 11
 - 2 : 5

Directions: Study the given bar graph carefully and answer the questions given below:

Preferences of People in Using Different Modes of Transport Over the Years



52. What is the respective ratio of the number of people who preferred to travel by bus to the number of people preferring to travel by rail in the year 2005?
- 15:11
 - 9:7
 - 7:9
 - 11:15

Directions (Questions 53 to 57) Study the following table and answer the questions based on it.
Expenditures of a Company (in Lakh Rupees) per Annum Over the given Years.

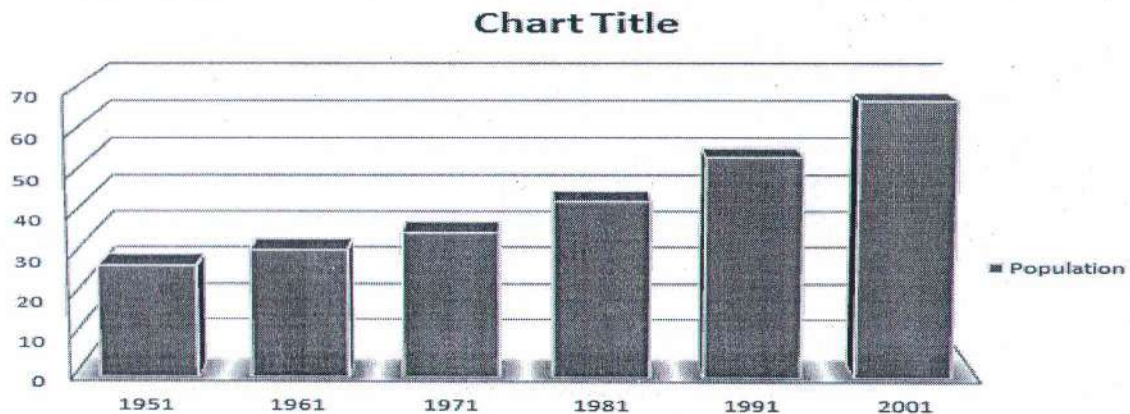
Year	Item of Expenditure				
	salary	Fuel and Transport	Bonus	Interest on Loans	Taxes
1998	288	98	3.00	23.4	83
1999	342	112	2.52	32.5	108
2000	324	101	3.84	41.6	74
2001	336	133	3.68	36.4	88
2002	420	142	3.96	49.4	98

53. What is the average amount of interest per year which the company had to pay during this period?
- Rs. 32.43 lakhs
 - Rs. 33.72 lakhs
 - Rs. 34.18 lakhs
 - Rs. 36.66 lakhs

54. The total amount of bonus paid by the company during the given period is approximately what percent of the total amount of salary paid during this period?
- 0.1%
 - 0.5%
 - 1%
 - 1.25%
55. Total expenditure on all these items in 1998 was approximately what percent of the total expenditure in 2002?
- 62%
 - 66%
 - 69%
 - 71%
56. The total expenditure of the company over these items during the year 2000 is?
- Rs. 544.44 lakhs
 - Rs. 501.11 lakhs
 - Rs. 446.46 lakhs
 - Rs. 478.87 lakhs
57. The ratio between the total expenditure on Taxes for all the years and the total expenditure on Fuel and Transport for all the years respectively is approximately?
- 4:7
 - 10:13
 - 15:18
 - 5:8

Directions (58-60): Study the graph and answer the questions:

The bar chart give population data(in crores)



58. The percent increase in population from 1991 to 2001 is:
- 24.8 crores
 - 20 crores
 - 13.6 crores
 - 22.9 crores
59. In which census year, the percent increase is highest as compared to that in the previous census year
- 1971
 - 1981
 - 1991
 - 2001
60. Per year increase in population from the year 1951 to 2001 is:
- 8100000
 - 7600000
 - 8900000
 - 6700000

Paper Code: 5108

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARM-5124
Bachelor of Science (Economics)	103305	BECM-5124

Semester-V

**Course Title: Computer Applications (Vocational) (Internet
and Web Designing)
(30)**

Time Allowed: 3 Hours

Max Marks: 50

**CANDIDATES ARE REQUIRED TO ATTEMPT FIVE 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. EXPLAIN EVOLUTION OF INTERNET (10)
2. EXPLAIN STRUCTURE OF EMAIL (10)

SECTION B

3. EXPLAIN ADVANTAGES AND LIMITATIONS OF HTML (10)
4. HOW TO DO FORMATTING IN HTML (10)

SECTION C

5. EXPLAIN ADVANTAGES OF CSS (10)
6. HOW TO SELECT COLORS AND BACKGROUND IN CSS (10)

SECTION D

7. EXPLAIN VARIOUS FEATURES OF JAVASCRIPT (10)
8. EXPLAIN THE CONCEPT OF ARRAYS IN JAVA SCRIPT (10)

Paper Code: 5109

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARL-5175
Bachelor of Science (Economics)	103305	BECL-5175

Semester-V

**Course Title: Economics (Economics of Development)
(30)**

Time Allowed: 3 Hours

Max Marks: 80

Note: The paper consist of four sectionss- A, B,C and D. Candidates are required to attempt five questions, selecting at least one from each section. The fifth question may be attempted from any section. Each question carries 16 marks.

Section-A

1. Critically examine Lewis's model of the unlimited supply of surplus labour.
2. Discuss the economic and non-economic determinants of economic development.

Section-B

3. Critically evaluate the Classical model of development.
4. Explain Harrod-Domar's model of growth.

Section-C

5. Discuss the Rosenstein Rodan's big push theory of growth.
6. Explain the stage of growth given by Rostow.

Section-D

7. Explain the factors that determine the choice of technique. Briefly discuss the importance of the intermediate technique.
8. Elaborate the major objectives and strategies of economic planning.

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARL-5609 (OPT-VI)
Bachelor of Science	Elo. 103305	BECL-5607 (OPT-VI)

Semester V**Course Title: Economics (Honours):****Economics of Agriculture****Time Allowed: 3 Hours****Theory: 80**

Note: Candidates are required to attempt five questions in all, selecting at least one from each section. The fifth question may be attempted from any section. Each question carries 16 marks.

Section - A

1. Write an essay on inter-relationship between agriculture and industrial development. Is there any complementarity between them?
2. Discuss role of land in agriculture. What are the factors effecting productivity of land.

Section - B

3. Briefly state Mellor's model of agricultural development. What are its shortcomings?
4. Critically examine Fei and Ranis model of dualistic economy?

Section - C

5. What are the factors responsible for green revolution? Also state its impact on agricultural productivity.
6. Elaborate nature of co-operating farming and evaluate with reference to productivity and employment.

Section - D

7. Explain the problems of small farmers and agricultural labourers in India.
8. Discuss the growth of Agriculture marketing in India and its rationale for state intervention

Exam Code: 103205
(40)

Paper Code: 5130

Programme: Bachelor of Arts Semester-V

Course Title: Cosmetology(Vocational)

Course Code: BARM-5147 ✓

Time Allowed: 3 Hours

Max Marks: 40

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 8 marks.

Section-A

1. Describe Pathogenic and Non-Pathogenic Bacteria?
2. What is Bacteria? Explain the growth of Bacteria'?

Section —B

3. What are the 2 major of agents used for sterilization and disinfection?
4. Write different methods of sterilization and sanitation?

Section-C

5. Write down techniques of Rebonding of Hair in detail?
6. How to nourish our Hair? Briefly explain hair spa

Section-D

7. Explain difference between Formal and Casual makeup.
8. Make a note on oil based products used in makeup.

Bachelor of Arts (Semester –V)

Course Title: Indian Classical Dance (Kathak)

Course Code: BARM- 5156 ✓✓

Time Allowed: 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

1. Explain Kathak and Natwari Nritya.
2. What is Manipuri Dance and write about their dancing style, costume and music.

Section – B

3. What is Vrities in kathak dance?
4. Write about taal and its ten Prans.

Section – C

5. Write about folk dance of Haryana.
6. Explain thumri and their presentation how thumri origin in kathak dance.

Section – D

7. (a) Write the Notation of Chakradar paran, kavit in Astamangal taal.
(b) Write the Notation of tehai and salami in teentaal
8. (a) Write the Notation of tehai and paran Ada Choutaal.
(b) Write the Notation of Tehai and tora in Astamangal taal.

Lb 17/12/24 (M) KMV = II

Exam Code: 103205

Paper Code: 5131

Programme: Bachelor of Arts (Semester – V)

Course Title: English (Elective)

Course Code: BARM – 5198 ✓

Time Allotted: 3 Hours

Max Marks: 50

SECTION-A

1. Attempt any three literary terms out of the given five. (Each to be answered in 100 words approximately)

a. Melodrama	b. Dramatic Irony	c. Soliloquy
d. Farce	e. Tragedy	(3×3=9)

SECTION-B

2. Write phonetic transcription of any nine words out of the given twelve words.

a. Welfare	b. Canon	c. False
d. Nobility	e. Baggage	f. Education
g. Table	h. Grass	i. Door
j. Kitchen	k. Car	l. glass

(9×1=9)

SECTION-C

3. Attempt any one Reference to Context in about 300 words approximately.

Antony: O mighty Caesar! Dost thou lie so low?
Are all thy conquests, glories, triumphs, spoils?
Shrunk to this little measure? Fare thee well.
I know not, gentlemen, what you intend,
Who else must be let blood', who else is rank.
If I myself, there is no hour so fit
As Caesar's death's hour, nor no instrument
Of half that worth as those your swords, made rich
With the most noble blood of all this world.
I do beseech, if you bear me hard,
Now, whilst your purpled hands do reek and smoke,
Fulfil your pleasure. Live a thousand years,

I shall not find myself so apt to die.
No place will please me so, no mean of death
As here by Caesar, and by you cut off,
The choice and master spirits of this age.

OR

Casca: I can as well be hang'd as tell the manner of it. It was mere foolery; I did not mark it. I saw Mark Antony offer him a crown—yet 'twas not a crown neither, 'twas one of these coronets'—and, as I told you, he put it by once; but, for all that, to my thinking, he would fain have had it. Then he offered it to him again; then he put it by again; but, to my thinking, he was very loath to lay his fingers off it. And then he offered it the third time; he put it the third time by; and still as he refus'd it, the rabblement hooted, and clapp'd their chopped hands and threw up their sweaty night-caps, and uttered such a deal of stinking breath because Caesar refused the crown that it had almost choked Caesar; for he swooped and fell down at it: and on mine own part, I durst not laugh, for fear of opening my lips and receiving the bad.

(1×6=6)

4. Attempt any two questions (each to be answered in 500 words approximately) out of the given three.

- A) Give an analysis of speech given by Mark Antony. Was he successful in planting the seed of rebellion in the minds of people?
- B) What role do women characters play in Shakespeare's drama *Julius Ceasor*?
- C) Give character analysis of Brutus.

(2×5=10)

SECTION-D

5. Attempt any one Reference to Context in about 300 words approximately.

Night. A lady's bedchamber in Bulgaria, in a small town near the Dragoman Pass. It is late in November in the year 1885, and through an open window with a little balcony on the left can be

seen a peak of the Balkans, wonderfully white and beautiful in the starlit snow. The interior of the room is not like anything to be seen in the east of Europe. It is half rich Bulgarian, half cheap Viennese. The counterpane and hangings of the bed, the window curtains, the little carpet, and all the ornamental textile fabrics in the room are oriental and gorgeous: the paper on the walls is occidental and paltry. Above the head of the bed, which stands against a little wall cutting off the right hand corner of the room diagonally, is a painted wooden shrine, blue and gold, with an ivory image of Christ, and a light hanging before it in a pierced metal ball suspended by three chains. On the left, further forward, is an ottoman. The washstand, against the wall on the left, consists of an enameled iron basin with a pail beneath it in a painted metal frame, and a single towel on the rail at the side. A chair near it is Austrian bent wood, with cane seat. The dressing table, between the bed and the window, is an ordinary pine table, covered with a cloth of many colors, but with an expensive toilet mirror on it. The door is on the right; and there is a chest of drawers between the door and the bed. This chest of drawers is also covered by a variegated native cloth, and on it there is a pile of paper backed novels, a box of chocolate creams, and a miniature easel, on which is a large photograph of an extremely handsome officer, whose lofty bearing and magnetic glance can be felt even from the portrait. The room is lighted by a candle on the chest of drawers, and another on the dressing table, with a box of matches beside it.

OR

NICOLA (at the gate, announcing). Major Sergius Saranoff! (He goes into the house and returns presently with a third chair, which he places at the table. He then withdraws.)

(Major Sergius Saranoff, the original of the portrait in Raina's room, is a tall, romantically handsome man, with the physical hardihood, the high spirit, and the susceptible imagination of an untamed mountaineer chieftain. But his remarkable personal distinction is of a characteristically civilized type. The ridges of his eyebrows, curving with a ram's-horn twist round the marked

projections at the outer corners, his jealously observant eye, his nose, thin, keen, and apprehensive in spite of the pugnacious high bridge and large nostril, his assertive chin, would not be out of place in a Paris salon. In short, the clever, imaginative barbarian has an acute critical faculty which has been thrown into intense activity by the arrival of western civilization in the Balkans; and the result is precisely what the advent of nineteenth-century thought first produced in England: to-wit, Byronism. By his brooding on the perpetual failure, not only of others, but of himself, to live up to his imaginative ideals, his consequent cynical scorn for humanity, the jejune credulity as to the absolute validity of his ideals and the unworthiness of the world in disregarding them, his wincings and mockeries under the sting of the petty disillusion which every hour spent among men brings to his infallibly quick observation, he has acquired the half tragic, half ironic air, the mysterious moodiness, the suggestion of a strange and terrible history that has left him nothing but undying remorse, by which Childe Harold fascinated the grandmothers of his English contemporaries. Altogether it is clear that here or nowhere is Raina's ideal hero. Catherine is hardly less enthusiastic, and much less reserved in shewing her enthusiasm. As he enters from the stable gate, she rises effusively to greet him. Petkoff is distinctly less disposed to make a fuss about him.)

(1×6=6)

6. Attempt any two questions (each to be answered in 500 words approximately) out of the given three.

A) Describe the play Arms and the Man as an anti-romantic comedy in three acts.

B) Give a detailed note on the themes of the play Arms and the Man.

C) Give in detail character analysis of Bluntschili, the Chocolate cream soldier of the play Arms and the Man.

(2×5=10)

SECTION-A

1. Attempt any three literary terms (each to be answered in 100 words approximately) out of the given five.

- a. Tragedy
- b. Lyric
- c. Satire
- d. Melodrama
- e. Dramatic Irony

(3×4=12)

2. Write phonetic transcription of any 12 words out of the given 16 words.

- a. ability
- b. abolish
- c. lion
- d. balloon
- e. sarcasm
- f. theatre
- g. captain
- h. union
- i. grass
- j. home
- k. laptop
- l. fridge
- m. harsh
- n. almirah
- o. sudden
- p. iron

(12×1=12)

SECTION-B

3. Attempt any one Reference to Context in about 300 words approximately.

ANTONY: But yesterday the word of Caesar might Have stood against the world; now lies he there. And none so poor to do him reverence. O masters, if I were disposed to stir Your hearts and minds to mutiny and rage, I should do Brutus wrong, and Cassius wrong, Who, you all know, are honourable men: I will not do them wrong; I rather choose To wrong the dead, to wrong myself and you, Than I will wrong such honourable men. But here's a parchment with the seal of Caesar; I found it in his closet, 'tis his will: Let but the commons hear this testament-- Which, pardon me, I do not mean to read-- And they would go and kiss dead Caesar's wounds And dip their napkins in his sacred blood, Yea, beg a hair of him for memory, And, dying, mention it within their wills, Bequeathing it as a rich legacy Unto their issue.

OR

ANTONY: Friends, Romans, countrymen, lend me your ears; I come to bury Caesar, not to praise him. The evil that men do lives after them; The good is oft interred with their bones; So let it be with Caesar. The noble Brutus Hath told you Caesar was ambitious: If it were so, it was a grievous fault, And grievously hath Caesar answer'd it. Here, under leave of Brutus and the rest-- For Brutus is an honourable man; So are they all, all honourable men-- Come I to speak in Caesar's funeral. He was my friend, faithful and just to me: But Brutus says he was ambitious; And Brutus is an honourable man. He hath brought many captives home to Rome Whose ransoms did the general coffers fill: Did this in Caesar seem ambitious? When that the poor have cried, Caesar hath wept: Ambition should be made of sterner stuff: Yet Brutus says he was ambitious; And Brutus is an honourable man. You all did see that on the Lupercal I thrice presented him a kingly crown, Which he did thrice refuse: was this ambition? Yet Brutus says he was ambitious; And, sure, he is an honourable man. I speak not to disprove what Brutus spoke, But here I am to speak what I do know. You all did love him once, not without cause: What cause withholds you then, to mourn for him? O judgment! thou art fled to brutish beasts, And men have lost their reason. Bear with me; My heart is in the coffin there with Caesar, And I must pause till it come back to me.

(1×8=8)

4. Attempt any two questions (each to be answered in 500 words approximately) out of the given three.
- Detailed note on the themes of the play *Julius Ceasor*.
 - What clever techniques and words does Cassius use that show his persuasiveness as he recruits Brutus?
 - Describe the role women characters in the play *Julius Caesar*. (2×10=20)

SECTION-C

5. Attempt any one Reference to Context in about 300 words approximately.

SERGIUS [ironically] Indeed! I am willing to be instructed.

[He sits on the ottoman, sprawling magnificently].

LOUKA. Look at me! how much am I allowed to have my own will? I have to get your room ready for you: to sweep and dust, to fetch and carry. How could that degrade me if it did not degrade you to have it done for you? But [with subdued passion] if I were Empress of Russia, above everyone in the world, then!! Ah then, though according to you I could shew no courage at all, you should see, you should see.

SERGIUS. What would you do, most noble Empress?

LOUKA. I would marry the man I loved, which no other queen in Europe has the courage to do. If I loved you, though you would be as far beneath me as I am beneath you, I would dare to be the equal of my inferior. Would you dare as much if you loved me? No: if you felt the beginnings of love for me you would not let it grow. You would not dare: you would marry a rich man's daughter because you would be afraid of what other people would say to you.

SERGIUS [bounding up] You lie: it is not so, by all the stars! If I loved you, and I were the Czar himself, I would set you on the throne by my side. You know that I love another woman, a woman as high above you as heaven is above earth. And you are jealous of her.

LOUKA. I have no reason to be. She will never marry you now. The man I told you of has come back. She will marry the Swiss.

SERGIUS [recoiling] The Swiss!

LOUKA. A man worth ten of you. Then you can come to me; and I will refuse you. You are not good enough for me. [She turns to the door].

OR

RAINA [looking up at the picture] Oh, I shall never be unworthy of you any more, my soul's hero: never, never, never. [She replaces it reverently. Then she selects a novel from the little pile of books. She turns over the leaves dreamily; finds her page; turns the book inside out at it; and, with a happy sigh, gets into bed and prepares to read herself to sleep. But before abandoning herself to fiction, she raises her eyes once more, thinking of the blessed reality, and murmurs] My hero! my hero!

A distant shot breaks the quiet of the night. She starts, listening; and two more shots, much nearer, follow, startling her so that she scrambles out of bed, and hastily blows out the candle on the chest of drawers. Then, putting her fingers in her ears, she runs to the dressing table, blows out the light there, and hurries back to bed in the dark, nothing being visible but the glimmer of the light in the pierced ball before the image, and the starlight seen through the slits at the top of the shutters. The firing breaks out again: there is a startling fusillade quite close at hand. Whilst it is still echoing, the shutters disappear, pulled open from without; and for an instant the rectangle of snowy starlight flashes out with the figure of a man silhouetted in black upon it. The shutters close immediately; and the room is dark again. But the silence is now broken by the sound of panting. Then there is a scratch; and the flame of a match is seen in the middle of the room. (1×8=8)

6. Attempt any two questions (each to be answered in 500 words approximately) out of the given three.
- Describe the opening scene of *Arms and the Man*.
 - Give character analysis of Bluntchili.
 - Describe themes of the play *Arms and the Man*. (2×10=20)

Exam Code: 103205

Paper Code: 5132

Programme: Bachelor of Arts (Semester-V)

Course Title: Punjabi (Elective)

Course Code: BARL-5208 ✓

ਸਮਾਂ : 3 ਘੰਟੇ

ਕੁੱਲ ਅੰਕ : 80

ਨੋਟ :- ਪ੍ਰਸ਼ਨ ਪੱਤਰ ਦੇ ਚਾਰ ਭਾਗ ਹਨ। ਹਰ ਭਾਗ ਵਿਚੋਂ ਦੋ ਪ੍ਰਸ਼ਨ ਪੁੱਛੇ ਗਏ ਹਨ। ਵਿਦਿਆਰਥੀਆਂ ਨੇ ਹਰ ਭਾਗ ਵਿਚੋਂ ਇਕ ਪ੍ਰਸ਼ਨ ਜ਼ਰੂਰ ਕਰਨਾ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਭਾਗ ਵਿਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਹਰ ਪ੍ਰਸ਼ਨ ਦੇ ਬਰਾਬਰ (16) ਨੰਬਰ ਹਨ।

ਸੈਕਸ਼ਨ-ਏ

ਪ੍ਰਸ਼ਨ 1. ਹੇਠ ਲਿਖੀਆਂ ਕਾਵਿ ਸਤਰਾਂ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰੋ।

ਗੂਰੂ ਜੀ ਐਸਾ ਕਾਮ ਨਾ ਕੀਜੈ, ਜਾਂ ਤੇ ਅਮੀਂ ਮਹਾਂ ਰਸ ਛੀਜੇ।
ਨਦੀ ਢਿਗ ਬਿਰਖਾ ਨਾਰੀ ਸੰਗ ਪੁਰਖਾ ਅਲਪੁ ਜੀਵਣੁ ਕੀ ਆਸ।
ਮਨ ਕੀ ਚਾਲ ਮੇਰ ਖਿਸਤ ਹੈ ਤਾਂ ਤੇ ਕੰਧ ਬਿਨਾਸਾ।
ਗੋਡੇ ਭਏ ਡਗਮਗੇ ਪੇਟ ਭਇਆ ਢਿਲ ਢਿਲਾ ਕੇਸ ਬਗਲੇ ਕੇ
ਪੰਖਾ।

ਪ੍ਰਸ਼ਨ 2. ਹੇਠ ਲਿਖੀਆਂ ਕਾਵਿ ਸਤਰਾਂ ਦੀ ਪ੍ਰਸੰਗ ਸਹਿਤ ਵਿਆਖਿਆ ਕਰੋ।

ਦਿਲ ਦਰਦਾਂ ਕੀਤੀ ਪੂਰੀ ਨੀ, ਦਿਲ ਦਰਦਾਂ ਕੀਤੀ ਪੂਰੀ॥੧॥
ਲਖਿ ਕਰੋੜ ਜਿਹਨਾਂ ਦੇ ਜੁੜਿਆ, ਸੋ ਭੀ ਝੂਰੀ ਝੂਰੀ।
ਭੱਠਿ ਲਈ ਤੇਰੀ ਚਿੱਟੀ ਚਾਦਰ, ਚੰਗੀ ਫਕੀਰਾਂ ਦੀ ਭੂਰੀ।
ਸਾਧਿ ਸੰਗਤਿ ਦੇ ਉਲ੍ਹੇ ਰਹਿੰਦੇ ਬੁੱਧ ਤਿੰਨਾਂ ਦੀ ਸੂਰੀ।
ਕਹੈ ਹੁਸੈਨ ਫਕੀਰ ਸਾਈਂ ਦਾ, ਖਲਕਤ ਗਈ ਅਧੂਰੀ।

ਸੈਕਸ਼ਨ-ਬੀ

ਪ੍ਰਸ਼ਨ 3. 'ਕਨਫਿਊਸ਼ਿਅਸ' ਨਿਬੰਧ ਵਿਚੋਂ ਕਨਫਿਊਸ਼ਿਅਸ ਦਾ ਕਿਸ ਕਿਸਮ ਦਾ ਨਾਇਕ ਬਿੰਬ ਉਸਰਦਾ ਹੈ। ਵਿਸਥਾਰ ਨਾਲ ਜਾਣਕਾਰੀ ਦਿਓ।

ਪ੍ਰਸ਼ਨ 4. 'ਮਨਸੂਰ' ਨਿਬੰਧ ਦਾ ਸਾਰ ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿਚ ਲਿਖੋ।

ਸੈਕਸ਼ਨ-ਸੀ

ਪ੍ਰਸ਼ਨ 5. 'ਬੇਗਾਨੇ ਬੋਹੜ ਦੀ ਛਾਂ' ਨਾਟਕ ਦਾ ਵਿਸ਼ਾ ਵਸਤੂ ਸਪੱਸ਼ਟ ਕਰਕੇ ਲਿਖੋ।

ਪ੍ਰਸ਼ਨ 6. 'ਬੇਗਾਨੇ ਬੋਹੜ ਦੀ ਛਾਂ' ਨਾਟਕ ਵਿਚ ਕਿਹੜੀਆਂ ਨਾਟਕੀ ਜੁਗਤਾਂ ਦੀ ਵਰਤੋਂ ਹੋਈ ਹੈ। ਉਦਾਹਰਣਾਂ ਦੇ ਕੇ ਸਮਝਾਓ।

ਸੈਕਸ਼ਨ-ਡੀ

ਪ੍ਰਸ਼ਨ 7. ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਸੰਖੇਪ ਵਿਚ ਉੱਤਰ ਦਿਓ।

1. ਗੌਤਮ ਬੁੱਧ ਦੀ ਗਿਆਨ ਯਾਤਰਾ ਬਾਰੇ ਤਬਸਰਾ ਕਰੋ।
2. ਲੇਖਕ ਅਨੁਸਾਰ ਭਾਈ ਮਰਦਾਨਾ ਜੀ ਦੀ ਸ਼ਖਸੀਅਤ ਕਿਵੇਂ ਦੀ ਸੀ।
3. ਤਾਸਕੀ ਕਿਸ ਕਿਸਮ ਦਾ ਇਨਕਲਾਬੀ ਸੀ।
4. 'ਬੇਗਾਨੇ ਬੋਹੜ ਦੀ ਛਾਂ' ਦਾ ਕੀ ਅਰਥ ਨਿਕਲਦਾ ਹੈ।
5. ਅਜਮੇਰ ਔਲਖ ਦੇ ਨਾਟਕ ਕਿਸ ਕਿਸਮ ਦੇ ਹੁੰਦੇ ਹਨ।
6. 'ਬੇਗਾਨੇ ਬੋਹੜ ਦੀ ਛਾਂ' ਨਾਟਕ ਵਿਚ ਕਿਹੜੇ ਕਿਹੜੇ ਪਾਤਰ ਹਨ। ਉਹਨਾਂ ਦੇ ਸੁਭਾਅ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਓ।

ਪ੍ਰਸ਼ਨ 8. ਹੇਠ ਲਿਖੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਸੰਖੇਪ ਵਿਚ ਉੱਤਰ ਦਿਓ।

1. 'ਗੌਤਮ ਤੋਂ ਤਾਸਕੀ ਤੱਕ' ਪੁਸਤਕ ਕਿਸ ਦੀ ਲਿਖੀ ਹੋਈ ਹੈ ਅਤੇ ਇਸ ਵਿਚ ਕਿੰਨੇ ਨਿਬੰਧ ਹਨ।
2. ਮਹਾਰਾਜਾ ਰਣਜੀਤ ਸਿੰਘ ਦੀ ਕਿਹੜੀ ਗੱਲ ਤੋਂ ਲੇਖਕ ਪ੍ਰਭਾਵਿਤ ਹੈ।
3. ਮਨਸੂਰ ਕਿਸ ਦੇਸ਼ ਦਾ ਬਾਸਿੰਦਾ ਸੀ ਅਤੇ ਉਸਨੇ ਕੀ ਕੀਤਾ ਸੀ।
4. ਬੇਗਾਨੇ ਬੋਹੜ ਦੀ ਛਾਂ ਨਾਟਕ ਵਿਚ ਕਿਹੜੀ ਉੱਪ ਬੋਲੀ ਵਰਤੀ ਗਈ ਹੈ।
5. ਬੇਗਾਨੇ ਬੋਹੜ ਦੀ ਛਾਂ ਨਾਟਕ ਵਿਚਲੇ ਛੇ ਪਾਤਰਾਂ ਦੇ ਨਾਂ ਲਿਖੋ।
6. ਬੇਗਾਨੇ ਬੋਹੜ ਦੀ ਛਾਂ ਨਾਟਕ ਦੇ ਔਰਤ ਪਾਤਰਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਦਿਓ।

Exam Code: 103205
(40)

Paper Code: 5129

Programme: Bachelor of Arts Semester-V

Course Title: Fashion Designing and Garment Construction
(Vocational) (Historic Costumes of India and World-I)

Course Code: BARM-5237 ✓

Time Allowed: 3 Hours

Max Marks: 30

Attempt five questions in all, selecting atleast one question from each section. Fifth question can be attempted from any section. Each question carries equal (6) marks.

Section-A

1. Write in detail about garments, footwears and hairstyles of Greek men and women?
2. Discuss National garment of Roman people. Explain its draping with the help of illustrations?

Section-B

3. Discuss in detail about weaving of Jamdani fabric of Bengal?
4. What do you know about yarns, motifs and Weaving techniques used in Tancoi of Gujarat?

Section-C

5. Write in detail about any traditional woven fabric of Madhya Pradesh?
6. Discuss about weaving of Paithani of Maharashtra?

Section-D

7. Explain in detail about technique and motifs used in Pochampali saree?
8. Discuss about Kanchipuram sarees of Tamilnadu?

Exam Code: 103205
(40)

Paper Code: 5121

Programme: Bachelor of Arts
Semester-V

Course Title: Fine Arts (Drawing and Painting)

Course Code: BARM-5245 ✓

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. All Questions carry equal marks. (8 each)

Section—A

1. Define the term "Impressionism" by giving special reference to 'Monet'.
2. What do you know about 'Edgar Degas' and his art?

Section —II

3. Discuss about any two paintings of 'Van Gogh' in detail.
4. Throw some lights on the paintings of Paul Gauguin by giving examples.

Section — III

5. Who was 'Edward Munch'? Discuss about him in your own words.
6. Define "Cubism" by giving examples of the paintings of 'Pablo Picasso'.

Section— IV

7. Define Surrealism "by taking examples from the art Works of 'Salvador Dali'
8. Write a detailed note on the alt of Max Ernst.

Punjabi version

ਨੋਟ: ਕੁੱਲ ਪੰਜ ਪ੍ਰਸ਼ਨ ਕਰੋ। ਹਰੇਕ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਕਰਨਾ ਜ਼ਰੂਰੀ ਹੈ। ਪੰਜਵਾਂ ਪ੍ਰਸ਼ਨ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਵਿੱਚੋਂ ਕੀਤਾ ਜਾ ਸਕਦਾ ਹੈ। ਸਾਰੇ ਪ੍ਰਸ਼ਨਾਂ ਦੇ ਬਰਾਬਰ 8 ਅੰਕ ਹਨ।

ਸੈਕਸ਼ਨ-1

1. ਕਲਾਦਾਰ 'ਮੋਨੇ' ਦਾ ਹਵਾਲਾ ਦਿੰਦੇ ਹੋਏ "ਪ੍ਰਭਾਵਬਾਦ" ਕਲਾ ਲਹਿਰ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।
2. 'Edgar Degas' ਅਤੇ ਉਸ ਦੀ ਕਲਾ ਬਾਰੇ ਤੁਸੀਂ ਕੀ ਜਾਣਦੇ ਹੋ?

ਸੈਕਸ਼ਨ-2

3. "Van Gogh" ਦੀਆਂ ਕਿਸੇ ਵੀ ਦੋ ਕਲਾਕ੍ਰਿਤੀਆਂ ਉੱਤੇ ਵਿਸਥਾਰ ਵਿਚ ਚਰਚਾ ਕਰੋ।
4. 'Paul Gauguin' ਦੀ ਚਿੱਤਰਕਲਾ ਵਿੱਚੋਂ ਉਦਾਹਰਣਾਂ ਲੈਂਦੇ ਹੋਏ ਉਸ ਦੀ ਚਿੱਤਰਕਾਰੀ ਉੱਤੇ ਕੁੱਝ ਰੋਸ਼ਨੀ ਪਾਓ।

ਸੈਕਸ਼ਨ-3

5. 'Edward Munch' ਕੌਣ ਸੀ? ਆਪਣੇ ਸ਼ਬਦਾਂ ਵਿੱਚ ਚਰਚਾ ਕਰੋ।
6. ਕਲਾਕਾਰ 'Pablo Picasso' ਦੀਆਂ ਕਲਾਕ੍ਰਿਤੀਆਂ ਵਿੱਚੋਂ ਉਦਾਹਰਣ ਦਿੰਦੇ ਹੋਏ 'CUBISM' ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

ਸੈਕਸ਼ਨ-4

7. 'Salvador Dali' ਦੀਆਂ ਕਲਾਕ੍ਰਿਤੀਆਂ ਵਿਚੋਂ ਉਦਾਹਰਣ ਲੈਂਦੇ ਹੋਏ "Surrealism" ਦੀ ਵਿਆਖਿਆ ਕਰੋ।
8. 'Max Ernst' ਦੀ ਕਲਾ ਉੱਤੇ ਵਿਸਥਾਰਪੂਰਵਕ ਲਿਖੋ।

Exam Code: 103205

Paper Code: 5133

Programme: Bachelor of Arts (Semester - V)

Course Title: Hindi (Elective) (हिंदी की आधुनिक गद्य विधाएं)

Course Code: BARM-5268

Time Allowed: 3 Hours

Max Marks: 60

नोट- यह प्रश्नपत्र चार भागों में विभाजित है। विद्यार्थी को कुल पाँच प्रश्नों के उत्तर देने होंगे। प्रथम भाग अनिवार्य है। प्रथम भाग में दिए गए छह गद्यांशों में से किन्हीं तीन की सप्रसंग व्याख्या अनिवार्य है। भाग दो, तीन, चार में पूछे गए दो-दो प्रश्नों में से किसी एक का उत्तर दें और पांचवा प्रश्न विद्यार्थी इनमें किसी भी भाग से कर सकता है। प्रत्येक प्रश्न के लिए निर्धारित अंक 12 हैं।

भाग - एक

प्र.1

- i. मेरी खुशी का कोई ठिकाना न था। उनकी कुछ कहानियों को तो मैंने तीन-तीन बार पढ़ रखा था। हर बार यही ख्याल आया था कि लिखने वाले की कलम चूम ली जाए।
- ii. अपनी कोई भी योजना बनाते समय यह विचार कभी उनके मस्तिष्क में ना आता था कि वह जीवित रहेंगे या नहीं। जीवन को वह एक खेल समझते थे जिसे वह हंसी खुशी खेलना चाहते थे और उनमें से अधिकांश हंसते और खेलते हुए ही इस संसार से विदा हो गए।
- iii. पहले पत्र चलाना एक विशेष समाज उपयोगी कार्य था। आज व्यापार अथवा राजनीतिक पार्टियों का प्रचार ही पत्रों का उद्देश्य हो गया है।
- iv. अहिंसात्मक प्रवृत्ति वह है कि हम जो ठीक और न्याय संगत समझते हैं उसको करते ही जाएंगे। निर्भय होकर अपने कर्तव्य पर डटे रहेंगे

और अन्यायी चाहे जितना भी जुल्म करना चाहे कर ले पर हम कर्तव्यच्युत नहीं होंगे।

- v. मैंने रुपया उठाया और मुंबई का टिकट लेकर अपने चिर दिन के पाले सपनों को सच कर दिखाने के लिए चल पड़ा। फर्स्ट ईयर का मूर्ख युवक जेब में हजार रुपया और मुंबई शहर जहां के चालीस प्रतिशत लोग कुछ काम नहीं करते केवल बुद्धि के बल पर जीते हैं।
- vi. मेरा नारी का आदर्श एक ही स्थान पर त्याग, सेवा और पवित्रता का केन्द्रित होना है। त्याग बिना फल की आशा के हो, सेवा सदैव बिना असंतोष प्रकट किया हुआ हो और पवित्रता सीज़रकी पत्नी की भांति ऐसी हो, जिसके लिए पछताने की आवश्यकता ना पड़े।

(3x4 =12)

भाग -दो

- प्र.2 प्रेमचंद एक चित्र पाठ की रेखाचित्र के तत्वों के आधार पर समीक्षा कीजिए। (1x12 =12)
- प्र.3 सर पर कफ़न लपेटे कातिल को ढूँढ़ते हैं पाठ के उद्देश्य को सपष्ट कीजिए। (1x12 =12)

भाग -तीन

- प्र.4 संस्मरण विधा के तत्वों से अवगत करवाएं। (1x12 =12)
- प्र.5 'है कुछ ऐसी बात जो चुप हूँ' रिपोर्ताज़ का सार अपने शब्दों में लिखें। (1x12 =12)

भाग-चार

- प्र.6 पत्रकारिता की उपयोगिता को सपष्ट करते हुए इसके किन्हीं पाँच प्रकारों पर प्रकाश डालें। (1x12 =12)
- प्र.7 कार्यालयी पत्रों की रचना प्राविधि से परिचित करवाएं। (1x12 =12)

Bachelor of Arts (Semester-V)
Course Title: History of The World (1500-1956 AD)
Course Code - BARL-5273

Examination Time: 3 Hours**Theory: 80**

NOTE: Attempt three questions, selecting one question from first three Units in about 1200 words. Attempt both questions from Unit IV. Each question will carry 16 marks.

UNIT-I

1. Discuss the causes and spread of reformation in Germany and England
2. What were the causes of French Revolution

UNIT-II

3. Why did the Industrial Revolution take place in England?
4. Discuss the achievements and impact of the Paris Peace Settlement

UNIT-III

5. Discuss the causes and impact of the Revolution in China (1911)
6. Describe the causes of the Second World War

UNIT-IV**7. (COMPULSORY UNIT / ATTEMPT BOTH QUESTIONS)****Answer any Eight questions, Each question will carry 2 marks****(8X2=16)**

- a) What is a fresco?
- b) What was humanism?
- c) Name two famous artists from Renaissance.
- d) What is reformation?
- e) Who started the reformation?
- f) Who was the most famous writer in England during Renaissance.
- g) What was an Indulgence?
- h) Who was Zwingli?
- i) What was the treaty of Augsburg?
- j) What is counter reformation?
- k) Who gave the three laws of motion?
- l) Give two reasons why Renaissance started in Italy.

8. Locate any Four places on the map of World and explain their importance in four lines (Each correct answer with explanation will carry 4 marks.

(4X4=16)

France, Japan, China, Austria, USA, England, Italy, Russia, Germany, Poland

Hindi Version

ध्यान दें: लगभग 1200 शब्दों में पहली तीन इकाइयों में से एक प्रश्न का चयन करते हुए, तीन प्रश्नों का प्रयास करें। इकाई IV से दोनों प्रश्नों का उत्तर दीजिए। प्रत्येक प्रश्न 16 अंक का होगा।

यूनिट-I

1. जर्मनी और इंग्लैंड में सुधार के कारणों और प्रसार पर चर्चा करें
2. फ्रांसीसी क्रांति के कारण क्या थे?

यूनिट-II

3. इंग्लैंड में औद्योगिक क्रांति क्यों हुई?
4. पेरिस शांति समझौते की उपलब्धियों और प्रभाव पर चर्चा करें

यूनिट-III

5. चीन में क्रांति (1911) के कारणों और प्रभाव पर चर्चा करें
6. द्वितीय विश्व युद्ध के कारणों का वर्णन करें

यूनिट-IV

7. (अनिवार्य इकाई/दोनों प्रश्न हल करें) किन्हीं आठ प्रश्नों के उत्तर दें। प्रत्येक प्रश्न 2 अंक का होगा (8X2=16)

- a) फ्रेस्को क्या है?
- b) मानवतावाद क्या था?
- c) पुनर्जागरण के दो प्रसिद्ध कलाकारों के नाम बताइये।

- d) 4. ਸੁਧਾਰ ਕੀਤਾ ਹੈ?
- e) 5. ਸੁਧਾਰ ਦੀ ਸ਼ੁਰੂਆਤ ਕਿਸਨੇ ਕੀਤੀ?
- f) ਪੁਨਰਜੀਵਨ ਦੇ ਦੌਰਾਨ ਇੰਗਲੈਂਡ ਵਿੱਚ ਸਭ ਤੋਂ ਪ੍ਰਸਿੱਧ ਲੇਖਕ ਕੌਣ ਸਨ?
- g) ਮੌਤ ਕੀਤੀ?
- h) ਜ਼ਿੰਗਲੀ ਕੌਣ ਸੀ?
- i) ਆਂਗਸਬਰਗ ਦੀ ਸੰਧੀ ਕੀਤੀ?
- j) ਸੁਧਾਰ ਕੀਤਾ ਹੈ?
- k) ਗਤੀ ਦੇ ਤਿੰਨ ਨਿਯਮ ਕਿਸਨੇ ਦਿੱਤੇ?
- l) ਪੁਨਰਜੀਵਨ ਦੀ ਸ਼ੁਰੂਆਤ ਇਟਲੀ ਵਿੱਚ ਕਿਉਂ ਹੋਈ? ਇਸ ਦੇ ਦੋ ਕਾਰਨ ਦੱਸੋ।

8. ਵਿਸ਼ਵ ਦੇ ਮਾਨਚਿਤਰ ਵਿੱਚ ਕਿਹੜੇ ਚਾਰ ਸਥਾਨਾਂ ਦਾ ਨਾਂ ਲਗਾਓ ਅਤੇ ਉਨ੍ਹਾਂ ਦੇ ਸੰਖੇਪ ਵਿੱਚ ਚਾਰ ਪੰਕਤੀਆਂ ਵਿੱਚ ਸਮਝਾਓ (ਸਪੱਸ਼ਟੀਕਰਨ ਸਹਿਤ ਹਰੇਕ ਸਹੀ ਉੱਤਰ ਲਈ 4 ਅੰਕ ਹੋਣਗੇ)। (4X4=16)

ਫਰਾਂਸ, ਜਾਪਾਨ, ਚੀਨ, ਆਸਟ੍ਰੀਆ, ਅਮਰੀਕਾ, ਇੰਗਲੈਂਡ, ਇਟਲੀ, ਰੂਸ, ਜਰਮਨੀ, ਪੋਲੈਂਡ

Punjabi Version

ਨੋਟ: ਲਗਭਗ 1200 ਸ਼ਬਦਾਂ ਵਿੱਚ ਪਹਿਲੀਆਂ ਤਿੰਨ ਇਕਾਈਆਂ ਵਿੱਚੋਂ ਇੱਕ ਪ੍ਰਸ਼ਨ ਚੁਣ ਕੇ, ਤਿੰਨ ਪ੍ਰਸ਼ਨਾਂ ਦੀ ਕੋਸ਼ਿਸ਼ ਕਰੋ। ਯੂਨਿਟ IV ਤੋਂ ਦੋਵੇਂ ਸਵਾਲਾਂ ਦੀ ਕੋਸ਼ਿਸ਼ ਕਰੋ। ਹਰੇਕ ਪ੍ਰਸ਼ਨ ਵਿੱਚ 16 ਅੰਕ ਹੋਣਗੇ।

ਯੂਨਿਟ -I

1. ਜਰਮਨੀ ਅਤੇ ਇੰਗਲੈਂਡ ਵਿੱਚ ਸੁਧਾਰ ਦੇ ਕਾਰਨਾਂ ਅਤੇ ਫੈਲਣ ਦੀ ਚਰਚਾ ਕਰੋ
2. ਫਰਾਂਸੀਸੀ ਕ੍ਰਾਂਤੀ ਦੇ ਕਾਰਨ ਕੀ ਸਨ?

ਯੂਨਿਟ-II

3. ਇੰਗਲੈਂਡ ਵਿੱਚ ਉਦਯੋਗਿਕ ਕ੍ਰਾਂਤੀ ਕਿਉਂ ਹੋਈ?
4. ਪੈਰਿਸ ਸ਼ਾਂਤੀ ਸਮਝੌਤੇ ਦੀਆਂ ਪ੍ਰਾਪਤੀਆਂ ਅਤੇ ਪ੍ਰਭਾਵ ਬਾਰੇ ਚਰਚਾ ਕਰੋ

ਯੂਨਿਟ-III

5. ਚੀਨ ਵਿੱਚ ਇਨਕਲਾਬ (1911) ਦੇ ਕਾਰਨਾਂ ਅਤੇ ਪ੍ਰਭਾਵਾਂ ਦੀ ਚਰਚਾ ਕਰੋ
6. ਦੂਜੇ ਵਿਸ਼ਵ ਯੁੱਧ ਦੇ ਕਾਰਨਾਂ ਦਾ ਵਰਣਨ ਕਰੋ

ਯੂਨਿਟ-IV

1. (ਲਾਜ਼ਮੀ ਯੂਨਿਟ / ਦੋਵੇਂ ਸਵਾਲਾਂ ਦੀ ਕੋਸ਼ਿਸ਼ ਕਰੋ) ਕਿਸੇ ਵੀ ਅੱਠ ਸਵਾਲਾਂ ਦੇ ਜਵਾਬ ਦਿਓ। ਹਰੇਕ ਸਵਾਲ ਵਿੱਚ 2 ਅੰਕ ਹੋਣਗੇ
 - a) ਫਰੈਂਸ ਕੀ ਹੈ?
 - b) ਮਾਨਵਤਾਵਾਦ ਕੀ ਸੀ?
 - c) ਪੁਨਰਜਾਗਰਣ ਦੇ ਦੋ ਮਸ਼ਹੂਰ ਕਲਾਕਾਰਾਂ ਦੇ ਨਾਮ ਦੱਸੋ।
 - d) ਸੁਧਾਰ ਕੀ ਹੈ?
 - e) ਸੁਧਾਰ ਕਿਸਨੇ ਸ਼ੁਰੂ ਕੀਤਾ?
 - f) ਪੁਨਰ-ਨਿਰਮਾਣ ਸਮੇਂ ਇੰਗਲੈਂਡ ਵਿੱਚ ਸਭ ਤੋਂ ਮਸ਼ਹੂਰ ਲੇਖਕ ਕੌਣ ਸੀ?
 - g) ਭੋਗ ਕੀ ਸੀ?
 - h) ਜ਼ਿੰਗਲੀ ਕੌਣ ਸੀ?
 - i) ਆਂਗਸਬਰਗ ਦੀ ਸੰਧੀ ਕੀ ਸੀ?
 - j) ਵਿਰੋਧੀ ਸੁਧਾਰ ਕੀ ਹੈ?
 - k) ਗਤੀ ਦੇ ਤਿੰਨ ਨਿਯਮ ਕਿਸਨੇ ਦਿੱਤੇ?
 - l) 12. ਇਟਲੀ ਵਿੱਚ ਪੁਨਰਜਾਗਰਣ ਕਿਉਂ ਸ਼ੁਰੂ ਹੋਇਆ, ਇਸ ਦੇ ਦੋ ਕਾਰਨ ਦੱਸੋ।

(8X2=16)

8. ਵਿਸ਼ਵ ਦੇ ਨਕਸ਼ੇ 'ਤੇ ਕੋਈ ਵੀ ਚਾਰ ਸਥਾਨ ਲੱਭੋ ਅਤੇ ਉਨ੍ਹਾਂ ਦੀ ਮਹੱਤਤਾ ਨੂੰ ਚਾਰ ਲਾਈਨਾਂ ਵਿੱਚ ਸਮਝਾਓ (ਵਿਆਖਿਆ ਦੇ ਨਾਲ ਹਰੇਕ ਸਹੀ ਉੱਤਰ ਵਿੱਚ 4 ਅੰਕ ਹੋਣਗੇ)। (4X4=16)

ਫਰਾਂਸ, ਜਾਪਾਨ, ਚੀਨ, ਆਸਟਰੀਆ, ਅਮਰੀਕਾ, ਇੰਗਲੈਂਡ, ਇਟਲੀ, ਰੂਸ, ਜਰਮਨੀ, ਪੋਲੈਂਡ

Time Allowed: 3 Hours

Max. Marks: 60

ਨੋਟ: ਹਰੇਕ ਭਾਗ ਵਿੱਚੋਂ ਘੱਟੋ-ਘੱਟ ਇੱਕ ਪ੍ਰਸ਼ਨ ਚੁਣ ਕੇ, ਕੁੱਲ ਪੰਜ ਸਵਾਲਾਂ ਦੀ ਕੋਸ਼ਿਸ਼ ਕਰੋ। ਪੰਜਵਾਂ ਸਵਾਲ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਤੋਂ ਕਰਨ ਦੀ ਕੋਸ਼ਿਸ਼ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ। ਹਰੇਕ ਸਵਾਲ ਵਿੱਚ 12 ਅੰਕ ਹੁੰਦੇ ਹਨ।

Section - A

Q1. (ੳ) ਪਕਾਉਣ ਦੇ ਵੱਖੋ-ਵੱਖਰੇ ਤਰੀਕੇ ਕੀ ਹਨ? ਕੋਈ ਵੀ ਦੋ ਸਮਝਾਓ।

(ਅ) ਭੋਜਨ ਦੇ ਵੱਖੋ-ਵੱਖਰੇ ਕੰਮ ਕੀ ਹਨ? ਸਮਝਾਓ।

(6+6=12)

Q2. (ੳ) ਸਰੀਰ ਵਿੱਚ ਕਾਰਬੋਹਾਈਡਰੇਟ ਦੀ ਭੂਮਿਕਾ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

(ਅ) ਕਵਾਸੀਓਰਕਰ ਅਤੇ ਮਾਰਸਮਸ ਵਿਚ ਕੀ ਅੰਤਰ ਹੈ? ਕਾਰਨਾਂ ਅਤੇ ਇਲਾਜ ਬਾਰੇ ਚਰਚਾ ਕਰੋ।

(6+6=12)

Section - B

Q3. ਭੋਜਨ ਦੀ ਸੰਭਾਲ ਕੀ ਹੈ? ਵਿਸਥਾਰ ਵਿੱਚ ਸਮਝਾਓ।

(12)

Q4. (ੳ) ਵਿਟਾਮਿਨ ਏ ਦੇ ਕਾਰਜਾਂ, ਭੱਤੇ ਅਤੇ ਕਮੀ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

(ਅ) ਸੋਡੀਅਮ ਉੱਤੇ ਇੱਕ ਨੋਟ ਲਿਖੋ।

(6+6=12)

Section - C

Q5. ਵਿਕਾਸ ਅਤੇ ਵਿਕਾਸ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ? ਵਿਕਾਸ ਅਤੇ ਵਿਕਾਸ ਵਿਚਕਾਰ ਅੰਤਰ ਦੀ ਚਰਚਾ ਕਰੋ।

(12)

Q6. ਹੇਠਾਂ ਦਿੱਤੇ ਬਾਰੇ ਸੰਖੇਪ ਵਿੱਚ ਲਿਖੋ:-

(ੳ) ਸਰੀਰਕ ਵਿਕਾਸ ਅਤੇ ਬੱਚੇ ਦਾ ਵਿਕਾਸ

(ਅ) ਦਿਮਾਗੀ ਪ੍ਰਣਾਲੀ ਦਾ ਵਿਕਾਸ

(6+6=12)

Section - D

Q7. 'ਮੋਟਰ ਵਿਕਾਸ ਸਿਰ ਤੋਂ ਸ਼ੁਰੂ ਹੁੰਦਾ ਹੈ' ਚਰਚਾ ਕਰੋ।

(12)

Q8. ਸੰਖੇਪ ਵਿੱਚ ਵਰਣਨ ਕਰੋ:-

(ੳ) ਪਿਆਰ ਅਤੇ ਸਨੇਹ

(ਅ) ਗੁੱਸਾ ਅਤੇ ਈਰਖਾ

(6+6=12)

Time Allowed: 3 Hours

Max. Marks: 60

नोट: उम्मीदवारों को प्रत्येक खंड से कम से कम एक प्रश्न का चयन करते हुए, पांच प्रश्नों का प्रयास करना आवश्यक है। पांचवां प्रश्न किसी भी खंड से हल किया जा सकता है। प्रत्येक प्रश्न 12 अंक का होगा।

Section - A

- Q1. (a) खाना पकाने की विभिन्न विधियाँ क्या हैं? किन्हीं दो को स्पष्ट कीजिए।
(b) भोजन के विभिन्न कार्य क्या हैं? व्याख्या करें। (6+6=12)
- Q2. (a) शरीर में कार्बोहाइड्रेट की भूमिका स्पष्ट करें।
(b) काशियोरकर और मरास्मस के बीच क्या अंतर है? कारणों और उपचार पर चर्चा करें। (6+6=12)

Section - B

- Q3. खाद्य संरक्षण क्या है? विस्तार से व्याख्या करें। (12)
- Q4. (a) विटामिन ए के कार्य, भते और कमी को समझाइये।
(b) सोडियम पर एक नोट लिखें। (6+6=12)

Section - C

- Q5. वृद्धि और विकास से आप क्या समझते हैं? वृद्धि और विकास के बीच अंतर पर चर्चा करें। (12)
- Q6. निम्नलिखित के बारे में संक्षेप में लिखें:-
(a) शारीरिक विकास और बाल विकास
(b) तंत्रिका तंत्र का विकास (6+6=12)

Section - D

- Q7. 'मोटर विकास सिर से शुरू होता है' चर्चा करें। (12)
- Q8. इसके बारे में संक्षेप में बताएं:-
(a) प्यार और स्नेह
(b) क्रोध और ईर्ष्या (6+6=12)

Exam Code: 103205

Paper Code: 5118

Programme: Bachelor of Arts Semester V
Course Title: Home Science (Food and Nutrition and Child Development)

Course Code: BARM-5284

Time Allowed: 3 Hours

Max. Marks: 60

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

Section - A

- Q1. (a) What are the different methods of cooking? Explain any two.
(b) What are the various functions of food? Explain. (6+6=12)
- Q2. (a) Explain the role of carbohydrates in the body.
(b) What is the difference between Kwashiorkor and marasmus? Discuss the causes and treatment. (6+6=12)

Section - B

- Q3. What is food preservation? Explain in detail. (12)
- Q4. (a) Explain the functions, allowance and deficiency of Vitamin A.
(b) Write a note on Sodium. (6+6=12)

Section - C

- Q5. What do you mean by growth and development? Discuss the difference between growth and development. (12)
- Q6. Write in brief about following:-
(a) Physical growth and child development
(b) Development of nervous system (6+6=12)

Section - D

- Q7. 'Motor Development starts from Head' Discuss. (12)
- Q8. Describe in brief about:-
(a) Love and Affection
(b) Anger and Jealousy (6+6=12)

Exam Code: 103205

Paper Code: 5128

Bachelor of Arts Semester -V

Course Title: Music (Instrumental)

Course Code: BARM- 5357 ✓

Time Allowed: 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

1. Write down the Historical Development of Indian Music during Modern Period. 8 Marks
2. Give the comparison between Avirbhava and Tribhava. 8 Marks

Section – B

3. Write down the contribution of Pt. Nikhil Banerjee towards Indian Classical Music. 8 Marks
4. Describe in detail the role of Musical Electronic Instruments. 8 Marks

Section - C

5. What do you know about interrelationship between Folk Music and Classical Music? 8 Marks
6. Explain the detail knowledge of Kirtan Chownkies in Gurubani Sangeet. 8 Marks

Section - D

7. Write down the Ekgun & Dugun layakarries of Deepchandi. 8 Marks
8. Write down the description and Aroh, Avroh & Pakar of Raag Puriya Dhanashree. 8 Marks

20/12/24

Exam Code: 103205
(40)

Paper Code: 5125

Programme: Bachelor of Arts
Semester-V

Course Title: Music (Vocal)

Course Code: BARM-5366 ✓

Time Allowed: 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

1. Write down the life sketch of Pt Dalip chander Bedi or Bibi Surinder kaur. 8
2. Write any two of the following gayan shallies
Thumri,
Tappa
Tarana 4+4=8

Section-B

3. Write down the Development of Indian Notation system and its Merits and Demerits. 8
4. Explain the types of Taan in Indian Music. 8

Section-C

5. What do you know about Folk music of Punjab. 8
6. Explain various Classical Gayan shallies in Gurmat Sangeet. 8

Section-D

7. Explain the following Non detail ragas: Jog, Yaman Kalyan. 8
8. Write down the ekgun and dugun of any one of the following talas: Deepchandi or Tilwara. 8

Hindi version

नोट: कुल पांच प्रश्न करें। प्रत्येक सैक्शन में से एक प्रश्न करना अनिवार्य है। पांचवां प्रश्न किसी भी सैक्शन में से कर सकते हैं। प्रत्येक प्रश्न 8 अंक का है।

सैक्शन-ए

1. पंडित दलीप चंदर बेदी या बीबी सुरिंदर कौर का जीवन परिचय लिखिए।
2. निम्नलिखित गायन शैलियों में से कोई दो लिखिए।
 - तुमरी
 - टप्पा
 - तराना

सैक्शन-बी

3. भारतीय संकेतन प्रणाली के विकास और इसके गुण-दोष लिखिए।
4. भारतीय संगीत में तान के प्रकार बताइये।

सैक्शन-सी

5. पंजाब के लोक संगीत के बारे में आप क्या जानते हैं?
6. गुरुमत संगीत में विभिन्न शास्त्रीय गायन शैलियों का वर्णन करें।

सैक्शन-डी

7. निम्नलिखित अविस्तार रागों की व्याख्या करें: जोग, यमन कल्याण ।
8. निम्नलिखित तालों में से किसी एक के एकगुन और दुगुन को लिखें: दीपचंदी या तिलवाड़ा ।

नोट: प्रत्येक अनुभाग से कम से कम एक प्रश्न का चयन करते हुए, कुल मिलाकर पाँच प्रश्नों का प्रयास करें। पांचवें प्रश्न को किसी भी अनुभाग से हल किया जा सकता है। प्रत्येक प्रश्न 16 अंक का है।

Section -A

Q1. दर्शनशास्त्र क्या है? इसकी शाखाओं को विस्तार से समझाइये

Q2. द्वंद्वात्मक भौतिकवाद की आलोचनात्मक व्याख्या करें।

Section- B

Q3. द्वैतवाद की परिभाषा दीजिए तथा इस संबंध में रेने डेसकार्टेस के विचार स्पष्ट कीजिए।

Q4. स्पिनोज़ा के अनिवार्यवाद को विस्तार से समझाइये।

Section-C

Q5. नुभववाद को परिभाषित करें और लॉक के अनुभववाद के मूल सिद्धांतों की व्याख्या करें।

Q6. बौद्धिकता क्या है? इसकी विशेषताएँ विस्तार से बताइये।

Section-D

Q7. अस्तित्ववाद की प्रकृति और परिभाषा क्या है? इसकी विशेषताएँ बताइये।

Q8. व्यावहारिकता को परिभाषित करें और विलियम जेम्स और जॉन डेवी के विचारों पर चर्चा करें।

ਨੋਟ: ਹਰੇਕ ਭਾਗ ਵਿੱਚੋਂ ਘੱਟੋ-ਘੱਟ ਇੱਕ ਪ੍ਰਸ਼ਨ ਚੁਣ ਕੇ, ਕੁੱਲ ਪੰਜ ਸਵਾਲਾਂ ਦੀ ਕੋਸ਼ਿਸ਼ ਕਰੋ। ਪੰਜਵਾਂ ਸਵਾਲ ਕਿਸੇ ਵੀ ਸੈਕਸ਼ਨ ਤੋਂ ਕਰਨ ਦੀ ਕੋਸ਼ਿਸ਼ ਕੀਤੀ ਜਾ ਸਕਦੀ ਹੈ। ਹਰੇਕ ਸਵਾਲ ਵਿੱਚ 16 ਅੰਕ ਹੁੰਦੇ ਹਨ।

Section -A

Q1. ਫਿਲਾਸਫੀ ਕੀ ਹੈ? ਇਸ ਦੀਆਂ ਸ਼ਾਖਾਵਾਂ ਬਾਰੇ ਵਿਸਥਾਰ ਵਿੱਚ ਦੱਸੋ।

Q2. ਦਵੰਦਵਾਦੀ ਪਦਾਰਥਵਾਦ ਦੀ ਅਲੋਚਨਾਮਕ ਵਿਆਖਿਆ ਕਰੋ।

Section- B

Q3. ਦਵੈਤਵਾਦ ਦੀ ਇੱਕ ਪਰਿਭਾਸ਼ਾ ਦਿਓ ਅਤੇ ਇਸ ਸਬੰਧ ਵਿੱਚ ਰੇਨੇ ਡੇਕਾਰਟ ਦੇ ਵਿਚਾਰ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

Q4. ਸਪਿਨੋਜ਼ ਦੇ ਤੱਤਵਾਦ ਦੀ ਵਿਸਤਾਰ ਵਿੱਚ ਵਿਆਖਿਆ ਕਰੋ।

Section-C

Q5. ਅਨੁਭਵਵਾਦ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿਓ ਅਤੇ ਲੋਕ ਦੇ ਅਨੁਭਵਵਾਦ ਦੇ ਮੂਲ ਸਿਧਾਂਤਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

Q6. ਬੁੱਧੀਵਾਦ ਕੀ ਹੈ? ਇਸ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਬਾਰੇ ਵਿਸਥਾਰ ਵਿੱਚ ਦੱਸੋ।

Section-D

Q7. ਹੋਂਦਵਾਦ ਦੀ ਪ੍ਰਕਿਰਤੀ ਅਤੇ ਪਰਿਭਾਸ਼ਾ ਕੀ ਹੈ? ਇਸ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

Q8. ਵਿਵਹਾਰਕਤਾ ਨੂੰ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋ ਅਤੇ ਵਿਲੀਅਮ ਜੇਮਸ ਅਤੇ ਜੌਨ ਡਿਵੀ ਦੇ ਵਿਚਾਰਾਂ 'ਤੇ ਚਰਚਾ ਕਰੋ।

Exam Code: 103205

Paper Code: 5127

Programme: Bachelor of Arts Semester V

Course Title: PHILOSOPHY (Western Metaphysics and Epistemology)

Course Code: BARL-5377 ✓

Time Allowed: 3 Hours

Max. Marks: 80

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

Section –A

Q1. What is Philosophy? Explain its branches in detail.

Q2. Explain Dialectical Materialism critically.

Section- B

Q3. Give a definition of Dualism and explain Rene Descarte's view in this regard.

Q4. Explain Spinoz's monism in detail.

Section-C

Q5. Define Empiricism and explain the basic Principles of Lock's Empiricism.

Q6. What is Rationalism? Give its characteristics in detail.

Section-D

Q7. What is the nature and definition of Existentialism? Explain its characteristics.

Q8. Define Pragmatism and discuss William James's and John Dewey's views.

Exam Code: 103205

Paper Code: 5119

Programme: Bachelor of Arts (Semester-V)

Course Title: Physical Education

Course Code: BARM-5384

Time Allowed: 3 Hours

Max Marks: 50

Note: Candidates are required to attempt five questions in all, selecting atleast one question from each section. The Fifth question may be attempted from any section. Each question carries 10 marks.

Section-A

1. What do you mean by the term Recreation? Discuss the Aim and Objectives of Recreation in the field of Physical Education.

ਸਨੋਰੰਜਨ ਸ਼ਬਦ ਤੋਂ ਆਪ ਕਿਆ ਸਮਝਦੇ ਹੈ? ਸ਼ਾਰੀਰਿਕ ਸਿੱਖਿਆ ਦੇ ਖੇਤਰ ਮੇਂ ਸਨੋਰੰਜਨ ਦੇ ਉਦੇਸ਼ ਅਤੇ ਉਦੇਸ਼ਾਂ ਪਰ ਚਰਚਾ ਕਰੋ।

ਮਨੋਰੰਜਨ ਸ਼ਬਦ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ? ਸਰੀਰਕ ਸਿੱਖਿਆ ਦੇ ਖੇਤਰ ਵਿੱਚ ਮਨੋਰੰਜਨ ਦੇ ਉਦੇਸ਼ ਅਤੇ ਉਦੇਸ਼ਾਂ ਬਾਰੇ ਚਰਚਾ ਕਰੋ।

2. Write about the Arjuna Award and Dronacharya Award in India.

ਭਾਰਤ ਮੇਂ ਅਰਜੁਨ ਪੁਰਸਕਾਰ ਔਰ ਫ਼ਰੋਨਾਚਾਰਯ ਪੁਰਸਕਾਰ ਦੇ ਬਾਰੇ ਮੇਂ ਲਿਖੋ।
ਭਾਰਤ ਵਿੱਚ ਅਰਜੁਨ ਅਵਾਰਡ ਅਤੇ ਦਰੋਣਾਚਾਰੀਆ ਅਵਾਰਡ ਬਾਰੇ ਲਿਖੋ।

Section-B

3. Define the Term Equilibrium. Explain the types of Equilibrium with Suitable Examples in Sports.

ਸੰਤੁਲਨ ਸ਼ਬਦ ਕੀ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋ। ਖੇਲਾਂ ਮੇਂ ਉਪਯੁਕਤ ਉਦਾਹਰਣਾਂ ਸਹਿਤ ਸੰਤੁਲਨ ਦੇ ਪ੍ਰਕਾਰਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

ਸੰਤੁਲਨ ਨੂੰ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋ। ਖੇਡਾਂ ਵਿੱਚ ਅਨੁਕੂਲ ਉਦਾਹਰਣਾਂ ਨਾਲ ਸੰਤੁਲਨ ਦੀਆਂ ਕਿਸਮਾਂ ਦੀ ਵਿਆਖਿਆ ਕਰੋ।

4. Describe the different types of Muscular Contraction with Suitable Examples in Sports.

ਖੇਲਾਂ ਮੇਂ ਉਪਯੁਕਤ ਉਦਾਹਰਣਾਂ ਦੇ ਸਾਥ ਵਿਭਿੰਨ ਪ੍ਰਕਾਰ ਦੇ ਮਾਸਪੇਸ਼ੀਯ ਸੰਕੁਚਨ ਦਾ ਵਰਣਨ ਕਰੋ।

ਖੇਡਾਂ ਵਿੱਚ ਢੁਕਵੀਆਂ ਉਦਾਹਰਨਾਂ ਦੇ ਨਾਲ ਵੱਖ-ਵੱਖ ਕਿਸਮਾਂ ਦੇ ਮਾਸਪੇਸ਼ੀ ਸੰਕੁਚਨ ਦਾ ਵਰਣਨ ਕਰੋ।

Section-C

5. What do you mean by Balanced Posture? What are the causes of Poor Posture and describe the preventive and remedial measures of a Poor Posture?

ਸੰਤੁਲਿਤ ਮੁਦਰਾ ਸੇ ਆਪ ਕਯਾ ਸਮਝਦੇ ਹੈਂ? ਖਰਾਬ ਮੁਦਰਾ ਕੇ ਕਾਰਨ ਕਯਾ ਹੈਂ ਐਰ ਖਰਾਬ ਮੁਦਰਾ ਕੇ ਨਿਵਾਰਕ ਐਰ ਉਪਚਾਰਕ ਉਪਾਯੋਂ ਕਾ ਵਰਣਨ ਕਰੋਂ?

ਸੰਤੁਲਿਤ ਆਸਣ ਤੋਂ ਤੁਹਾਡਾ ਕੀ ਮਤਲਬ ਹੈ? ਖਰਾਬ ਆਸਣ ਦੇ ਕੀ ਕਾਰਨ ਹਨ ਅਤੇ ਖਰਾਬ ਆਸਣ ਦੇ ਰੋਕਥਾਮ ਅਤੇ ਉਪਚਾਰਕ ਉਪਾਵਾਂ ਦਾ ਵਰਣਨ ਕਰੋ?

6. Define the Term Massage. Explain the different Types of Massage in Sports.

ਮਸਾਜ਼ ਸ਼ਬਦ ਕੋ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋਂ। ਖੇਲ-ਕੂਦ ਮੇਂ ਮਾਲਿਸ਼ ਕੇ ਵਿਭਿੰਨ ਪ੍ਰਕਾਰੋਂ ਕੀ ਘਾਠਾ ਕਰੋਂ।

ਮਸਾਜ਼ ਦੀ ਮਿਆਦ ਨੂੰ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋ। ਖੇਡਾਂ ਵਿੱਚ ਮਸਾਜ਼ ਦੀਆਂ ਵੱਖ-ਵੱਖ ਕਿਸਮਾਂ ਬਾਰੇ ਦੱਸੋ।

Section-D

7. How massage effects the Muscular and Nervous System? Write in Brief.

ਮਾਲਿਸ਼ ਮਾਸਪੇਸ਼ੀਓਂ ਐਰ ਤੰਤ੍ਰਿਕਾ ਤੰਤ੍ਰ ਪਰ ਕੈਸੇ ਪ੍ਰਭਾਵ ਡਾਲਦੀ ਹੈ? ਸੰਖੇਪ ਮੇਂ ਲਿਖੋਂ।

ਮਸਾਜ਼ ਮਾਸਪੇਸ਼ੀ ਅਤੇ ਦਿਮਾਗੀ ਪ੍ਰਣਾਲੀ ਨੂੰ ਕਿਵੇਂ ਪ੍ਰਭਾਵਤ ਕਰਦਾ ਹੈ? ਸੰਖੇਪ ਵਿੱਚ ਲਿਖੋ।

8. Define the Term Sports Training. Describe the Aim and Objectives of Sports Training.

ਖੇਲ ਪ੍ਰਸ਼ਿਕਸ਼ਣ ਸ਼ਬਦ ਕੋ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋਂ। ਖੇਲ ਪ੍ਰਸ਼ਿਕਸ਼ਣ ਕੇ ਲਕਸ਼ ਏਂ ਉਦੇਸ਼ਓਂ ਕਾ ਵਰਣਨ ਕਰੋਂ।

ਖੇਡ ਸਿਖਲਾਈ ਦੀ ਮਿਆਦ ਨੂੰ ਪਰਿਭਾਸ਼ਿਤ ਕਰੋ। ਖੇਡ ਸਿਖਲਾਈ ਦੇ ਉਦੇਸ਼ ਅਤੇ ਉਦੇਸ਼ਾਂ ਦਾ ਵਰਣਨ ਕਰੋ।

Exam Code: 103205

Paper Code: 5123

Programme: Bachelor of Arts (Semester – V)

Course Title: Political Science

(Comparative Government and Politics)

Course Code: BARL-5406 ✓

Time Allowed: 3 Hours

Max Marks: 80

Note: Candidates are required to attempt five questions in all, selecting atleast one question from each section. The fifth question may be attempted from any Section. Each question carries sixteen marks.

Section A

1. What is the scope of Comparative Government and Politics? Explain elaborately.
2. Define Comparative Method. Discuss its nature, scope and limitations.

Section B

3. Explain the composition and functions of the British House of Commons.
4. "American Senate is the most powerful second chamber in the world." Discuss this statement.

Section C

5. Discuss the method of appointment, powers and position of the British Prime Minister.
6. Explain the executive and legislative powers of the American President.

Section D

7. Critically examine the concept of Rule of Law as practiced in Great Britain.
8. Write an essay on the Pressure Groups in America.

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

अनुभाग ए

1. तुलनात्मक सरकार और राजनीति का दायरा क्या है? विस्तृत रूप से समझाइये।
2. तुलनात्मक विधि को परिभाषित करें। इसकी प्रकृति, कार्यक्षेत्र और सीमाओं पर चर्चा करें।

अनुभाग बी

3. ब्रिटिश हाउस ऑफ कॉमन्स की संरचना और कार्यों की व्याख्या करें।
4. "अमेरिकी सीनेट दुनिया का सबसे शक्तिशाली दूसरा सदन है।" इस कथन पर चर्चा करें।

अनुभाग सी

5. ब्रिटिश प्रधानमन्त्री की नियुक्ति की विधि, शक्तियाँ एवं स्थिति की चर्चा करें।
6. अमेरिकी राष्ट्रपति की कार्यकारी एवं विधायी शक्तियों की व्याख्या करें।

अनुभाग डी

7. ग्रेट ब्रिटेन में प्रचलित कानून के शासन की अवधारणा का आलोचनात्मक परीक्षण करें।
8. अमेरिका में दबाव समूहों पर एक निबंध लिखें।

Exam Code: 103205
(40)

Paper Code: 5117

Programme: Bachelor of Arts Semester-V

**Course Title: Public Administration (Local Government
(With Special Reference to Punjab)**

Course Code: BARL-5414

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 Sixteen marks.

Section A

1. Define Local Government. Discuss the characteristics and significance of Local Government.
2. Trace the Development of Local Self-Government in India from 1882-1947.

Section B

3. Explain in details the features of 73rd Constitutional Amendment Act, 1992.
4. Discuss the composition, powers, functions and position of Zila Parishad.

Section C

5. What do you mean by Urbanization? Discuss its problems in Punjab.
6. Discuss the composition, functions and sources of finance of Municipal Corporation.

Section D

7. How does the State Government exercise its control over Local Bodies? Explain.
8. Critically evaluate the structure, functions and position of State Finance Commission.

Hindi version

नोट: अभ्यर्थियों को प्रत्येक अनुभाग से कम से कम एक प्रश्न का चयन करते हुए पांच प्रश्नों का उत्तर देना होगा। पांचवें प्रश्न को किसी भी अनुभाग से हल किया जा सकता है। प्रत्येक प्रश्न सोलह अंकों होगा।

सैक्शन-ए

1. स्थानीय सरकार को परिभाषित करें। स्थानीय सरकार की विशेषताओं और महत्व पर चर्चा करें।
2. 1882-1947 तक भारत में स्थानीय स्वशासन के विकास का पता लगाएं।

सैक्शन-बी

3. 73वें संविधान संशोधन अधिनियम, 1992 की विशेषताओं को विस्तार से समझाइये।
4. जिला परिषद की संरचना, शक्तियों, कार्यों और स्थिति पर चर्चा करें।

सैक्शन-सी

5. शहरीकरण से आप क्या समझते हैं? पंजाब में इसकी समस्याओं पर चर्चा करें।
6. नगर निगम की संरचना, कार्यों और वित्त के स्रोतों पर चर्चा करें।

सैक्शन-डी

7. राज्य सरकार स्थानीय निकायों पर अपना नियंत्रण कैसे रखती है? व्याख्या करना।
8. राज्य वित्त आयोग की संरचना, कार्यों एवं स्थिति का आलोचनात्मक मूल्यांकन करें।

Exam Code: 103205
(50)

Paper Code: 5115

Programme: Bachelor of Arts
Semester-V

Course Title: Psychology (Abnormal Psychology-I)

Course Code: BARM-5443 ✓

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt five questions out of eight. It is compulsory to attempt atleast one question from each Section. The fifth question can be done from any Section. All questions carry equal marks. Each question carries 12 marks. Students can use non-programmable calculator and statistical Tables.

SECTION-A

1. Write a detailed note on the following:
 - (a) Concept and criteria of abnormality.
 - (b) Myths and Misconceptions regarding abnormal behaviour. (8,4)
2. Write a detailed note on the theoretical perspective of psychopathology given by Sigmund Freud. (12)

SECTION-B

3. Explain the Socio-Cultural causes of abnormal behaviour. (12)
4. Write a note on the following Causal Factors of abnormal behaviour:
 - a. Pathogenic Family Structures
 - b. Brain dysfunction & Physical deprivation (6,6)

SECTION — C

5. Write a detailed note on the concept of stress and coping strategies (12)
6. Write a detailed note on the symptoms, causes and treatment of Coronary Heart Disease (CHD). (12)

SECTION — D

7. Discuss the following:
 - (a) Explain the clinical picture, causes and treatment of Alcoholism.
 - (b) Misconceptions of alcohol and alcoholism. (8,4)
8. Write a detailed note on the following
 - (a) Drug addiction and its psychological effects.
 - (b) Opium and hallucinogens. (6,6)

Exam Code: 103205

Paper Code: 5126

Programme: Bachelor of Arts (Semester -V)

Course Title: Sanskrit (Elective) (Neetikatha, Sahitya Tatha Vyakarana)

Course Code: BARM - 5466

Time Allowed- 3 Hours

Max. Marks: 60

- नोट - १. प्रश्न-पत्र का माध्यम हिन्दी है ।
२. उत्तर हिन्दी, संस्कृत, पंजाबी, अंग्रेजी किसी भी भाषा में दिए जा सकते हैं ।
निर्देश - प्रश्नपत्र के चार सैक्शन हैं - A,B,C,D । प्रत्येक सैक्शन में दो प्रश्न हैं । कुल पाँच प्रश्न करने अनिवार्य हैं । किसी एक सैक्शन से दोनों प्रश्न तथा अन्य तीन सैक्शनों से एक - एक प्रश्न करें । सभी प्रश्नों के अंक समान हैं । (12)

SECTION - A

प्रश्न -1. निम्नलिखित चार श्लोकों की सप्रसंग व्याख्या कीजिए - (3 X 4 =12 अंक)

१. शत्रुणा योजयेच्छत्रुं बलिना बलवत्तरम् ।
स्वकार्याय यतो न स्यात्काचित्पीडाऽत्र तत्क्षये ॥
२. यो यस्य जायते वध्यः स स्वप्रेऽपि कथञ्चन ।
न तत्समीपमभ्येति तत्किमेवं प्रजल्पसि ॥
३. सर्वस्वहरणे शक्तं शत्रुं बुद्धियुता नराः ।
तोषयन्त्यल्पदानेन वाडवं सागरो यथा ॥
४. शूरश्च कृतविद्यश्च दर्शनीयोऽसि पुत्रक !
यस्मिन्कुले त्वमुत्पन्नो गजस्तत्र न हन्यते ॥

प्रश्न -२. प्रस्तुत कथाओं का सार, शिक्षा एवं महत्त्व लिखिए । (6 X 2 =12 अंक)

१. युधिष्ठिरकुम्भकारकथा
२. सिंहलम्बककर्णकथा

SECTION - B

प्रश्न -3. निम्नलिखित चार श्लोकों की सप्रसंग व्याख्या लिखिए - (3 X 4 =12 अंक)

१. प्राहुः सातपदं मैत्रं जनाः शास्त्रविचक्षणाः ।
मित्रतां च पुरस्कृत्य किञ्चिद्वक्ष्यामि तच्छृणु ॥
२. उपकारिषु यः साधु साधुत्वे तस्य को गुणः ?
अपकारिषु यः साधु स साधुः सद्भिर्बुध्यते ॥
३. उत्तमं प्रणिपातेन शूरं भेदेन योजयेत् ।
नीचमल्पप्रदानेन समशक्तिं पराक्रमैः ॥
४. सुभिक्षाणि विचित्राणि शिथिलाः पौरयोषितः ।
एको दोषो विदेशस्य स्वजातिर्यद्विरुध्यते ॥

प्रश्न -४. प्रस्तुत कथाओं का सार, शिक्षा एवं महत्त्व लिखिए - (6 X 2 =12 अंक)

१. घण्टोष्टकथा
२. शृगाल-सिंह - व्याघ्रचित्रकथा

SECTION - C

प्रश्न - ५.

१. निम्नलिखित पदों में सन्धिच्छेद कीजिए -

(1 X 6 = 6 अंक)

१. पुनरपि
२. भानुरयम्
३. शिरोधार्य
४. मेघोऽगर्जत्
५. निष्कामः
६. मनस्तापः

२. निम्नलिखित पदों में सन्धि कीजिए -

(1 X 6 = 6 अंक)

१. तस्याः + चक्षुः
२. बालः + तिष्ठति
३. निः + सन्देहः
४. चतुः + पथम्
५. मनः + विजयः
६. शिशुः + हसति

प्रश्न - ६.

१. निर्दिष्ट धातुओं के साथ निर्दिष्ट प्रत्यय लगाकर निष्पन्न रूप - (1 X 6 = 6 अंक)

लट् लकार प्रथम पुरुष एकवचन में लिखिए -

१. कृ + णिच्
२. भू + सन्
३. दृश् + णिच्
४. आप् + सन्
५. सिच् + णिच्
६. चल् + सन्

२. निम्नलिखित दो विषयों पर टिप्पणी लिखिए - (3 X 2 = 6 अंक)

१. ऋतुः
२. मास

SECTION - D

प्रश्न - ७.

१. सामवेद का काल, वर्ण्य विषय एवं शाखाएँ लिखिए ।

(6 अंक)

२. अथर्ववेद का काल, वर्ण्य विषय एवं शाखाएँ लिखिए ।

(6 अंक)

प्रश्न - ८.

निम्नलिखित बारह शब्दों को संस्कृत में लिखिए -

(1 X 12 = 12 अंक)

- | | |
|-------------|----------|
| १. अंगूठा | ७. कान |
| २. गर्दन | ८. बन्दर |
| ३. पोता | ९. नेवला |
| ४. छोटा भाई | १०. जीभ |
| ५. कोयल | ११. गधा |
| ६. घोडा | १२. बाजू |

Exam Code: 103205

Paper Code: 9501

Programme: Bachelor of Arts (Semester-V)

Course Title: Sociology (Social Thought)

Course Code: BARL-5475

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question can be attempted from any section. Each question carries equal (16) marks.

Section-A

1. Elucidate Comte's "Law of three stages"
2. Explain Spencer's theory of Organic Analogy?

Section-B

3. Critically discuss Marx theory of "Dialectical Materialism"?
4. Discuss Marx theory of Class Struggle?

Section-C

5. What is bureaucracy? Discuss its characteristics?
6. Discuss Weber's concept of Social Action?

Section-D

7. Discuss Durkheim's theory of Suicide?
8. Write a note on Social facts?

Exam Code: 103205
(50)

Paper Code: 5120

Programme: Bachelor of Arts
Semester-V

Course Title: Sociology (Social Thought)

Course Code: BARL-5475

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt 5 questions, selecting 1 from each section carrying 16 marks each. The fifth question may be attempted from any section.

Section-A

1. What are the institutions of Comte's Positivism?
2. Discuss Spencer's evolutionary perspective?

Section-B

3. Discuss Marx theory of Dialectical Materialism?
4. Elucidate Marx concept of Class Struggle?

Section-C

5. Discuss the concept of Authority and Bureaucracy?
6. What is Weber's theory of 'Protestant Ethics and the Spirit of Capitalism'?

Section -D

7. Write a note on social facts?
8. Discuss Durkheim's theory of Division of Labour?

Punjabi version

ਸੈਕਸ਼ਨ-1

1. ਕਾਮਟੇ ਦੇ ਸਕਾਰਾਤਮਕਵਾਦ ਦੀਆਂ ਸੰਸਥਾਵਾਂ ਕੀ ਹਨ?
2. ਸਪੈਂਸਰ ਦੇ ਵਿਕਾਸਵਾਦੀ ਦ੍ਰਿਸ਼ਟੀਕੋਣ ਦੀ ਚਰਚਾ ਕਰੋ?

ਸੈਕਸ਼ਨ-2

3. ਦਵੰਦਵਾਦੀ ਪਦਾਰਥਵਾਦ ਦੇ ਮਾਰਕਸ ਸਿਧਾਂਤ ਦੀ ਚਰਚਾ ਕਰੋ?
4. ਜਮਾਤੀ ਸੰਘਰਸ਼ ਦੇ ਮਾਰਕਸ ਸੰਕਲਪ ਨੂੰ ਸਪੱਸ਼ਟ ਕਰੋ?

ਸੈਕਸ਼ਨ-3

5. ਅਥਾਰਟੀ ਅਤੇ ਨੋਕਰਸ਼ਾਹੀ ਦੇ ਸੰਕਲਪ ਦੀ ਚਰਚਾ ਕਰੋ?
6. ਪ੍ਰੋਟੈਸਟੈਂਟ ਨੈਤਿਕਤਾ ਅਤੇ ਪੂੰਜੀਵਾਦ ਦੀ ਆਤਮਾ ਬਾਰੇ ਵੇਬਰ ਦਾ ਸਿਧਾਂਤ ਕੀ ਹੈ?

ਸੈਕਸ਼ਨ-4

7. ਸਮਾਜਿਕ ਤੱਥਾਂ 'ਤੇ ਨੋਟ ਲਿਖੋ?
8. ਲੇਬਰ ਦੀ ਵੰਡ ਦੇ ਡਰਖਾਈਮ ਦੇ ਸਿਧਾਂਤ ਦੀ ਚਰਚਾ ਕਰੋ?

Hindi version

सैक्शन-ए

1. कॉम्टे के प्रत्यक्षवाद की संस्थाएं क्या हैं?
2. स्पेंसर के विकासवादी परिप्रेक्ष्य की चर्चा कीजिए।

सैक्शन -बी

3. द्वंद्वात्मक भौतिकवाद के मार्क्स सिद्धांत पर चर्चा करें?
4. वर्ग संघर्ष की मार्क्स की अवधारणा को स्पष्ट कीजिए।

सैक्शन -सी

5. प्राधिकरण और नौकरशाही की अवधारणा पर चर्चा करें?
6. वेबर का 'प्रोटेस्टेंट एथिक्स एंड द स्पिरिट ऑफ कैपिटलिज्म' का सिद्धांत क्या है?

सैक्शन -डी

7. सामाजिक तथ्यों पर एक टिप्पणी लिखिए।
8. दुर्खाइम के श्रम विभाजन के सिद्धांत की चर्चा कीजिए।

Exam Code: 103205
(20)

Paper Code: 5134

Programme: Bachelor of Arts (Honours)
Semester-V

Course Title: English (Honours): English Novel

Course Code: BARL-5559 ✓

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions in about 800 words, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 16 marks. (5x16=80 Marks)

Section A

1. Write an essay on the conflict between the Ideal and the Social in Thomas Hardy's *Jude the Obscure*.
2. Explore the role of social class in *Jude the Obscure*. How does it influence the characters' lives and choices? Discuss with specific reference to Jude, Sue, and Arabella.

Section B

3. How would you characterize Catherine Barkley in the novel *A Farewell to Arms*? Also write an elaborate note on her role.

4. Analyze the significance of the title of *A Farewell to Arms*. How does it relate to the broader themes of love, loss, and the human experience as presented in the story?

Section C

5. What is the significance of "Going Away" and "Coming Home" in Amitav Ghosh's *The Shadow Lines*? Also summarize the novel.
6. Compare and contrast the characters of Ila and Tha'mma. Also throw light on their role in the novel *The Shadow Lines*.

Section D

7. Write a detailed note on following Literary Terms and also throw light on their usage in *A Farewell to Arms*:
 - a. Narrative Technique
 - b. Foreshadowing
8. Write a detailed note on following Literary Terms and also throw light on their usage in *Jude the Obscure*:
 - (a) Symbolism
 - (b) Irony

Exam Code: 103205
(20)

Paper Code: 5135

Programme: Bachelor of Arts (Honours)
Semester-V

Course Title: Hindi (Honours): Aadhunik Hindi Natak
Evam Upanyas
Course Code: BARL-5569 ✓

Time Allowed: 3 Hours

Max Marks: 80

आवश्यक निर्देश— प्रश्न-पत्र के चार भाग हैं। प्रथम भाग अनिवार्य है। भाग II, III, IV में से एक-एक प्रश्न का उत्तर देना अनिवार्य है। पांचवां प्रश्न किसी भी भाग में से करें। कुल पांच प्रश्नों के उत्तर दें। (II, III, IV)

भाग-1

1. नोट— निम्नलिखित में से किन्हीं चार गद्यांशों की सप्रसंग व्याख्या करें। (4x4=16 अंक)
 - (i) राजनीति को भी नौकरशाही ने बेहूदा बनाया है। यहां इस तरह नौकरी की परिकल्पना अंग्रेजों ने की थी। गुलामों पर गुलामों से शासन करना और जिंदगी की सहज धार को हर मोड़ पर लाल फीते से बांध देना।

- (ii) जिसके हम विरोधी होते हैं, उसने अपने आप में ऐसी ताकत पैदा कर ली है कि विरोध के हर रूप को वह हज़म लेता है..... लगता है वही हमारे विरोध का अब संचालन भी करता है।
- (iii) तुम्हें सारी चीज़ें याद हैं तभी तो इतने दुखी हो। मैं कहता हूँ दुनिया जहन्नम में जाय, तुमसे क्या? मुझसे क्या? क्या है, हमारे अधिकार में? हमारी क्या ताकत है? इस ब्राह्मण्ड में हम सूई की नोक का करोड़वां हिस्सा भी तो नहीं है।
- (iv) मुंशी दीनदयाल उन आदमियों में से थे जो सीधों के साथ सीधे होते हैं पर टेढ़ों के साथ टेढ़े जी नहीं, शैतान हो जाते हैं। दयानाश बड़ा-सा मूंह खोलते, हज़ारों की बातचीत करते तो.....
- (v) बेटे का ब्याह किया है कि ठठा है। शादी ब्याह में सभी कर्ज लेते हैं। तुमने कोई नई बात नहीं की। खाने पहनने के लिए कौन कर्ज लेते हैं। धर्मत्मा बनने का कुछ फल मिलना चाहिए या नहीं। तुम्हारे ही दर्जे का सत्यदेव है, पक्का मकान खड़ा कर दिया। जमींदारी खरीद ली। बेटी के ब्याह में कुछ नहीं तो पांच हज़ार तो खर्च किए ही होंगे।

भाग-2

2. मिस्टर अभिमन्यु नाटक "सामाजिक और राजनीतिक परिवेश की विसंगतियों का आईना है" स्पष्ट करें।

3. "मिस्टर अभिमन्यु" नाटक के आधार पर राजन का चरित्र चित्रण करें।

भाग-3

4. हिंदी उपन्यास का उद्भव एवं विकास विस्तार पूर्वक लिखे।
5. नाटक की परिभाषा एवं तत्वों पर प्रकाश डालें।

भाग-4

6. मुंशी प्रेमचंद का साहित्यिक परिचय विस्तार पूर्वक लिखें।
7. "गबन" उपन्यास में मध्यवर्गीय समाज की विभिन्न समस्याओं का चित्रण हुआ है, स्पष्ट करें।

Exam Code: 103205
(20)

Paper Code: 5136

Programme: Bachelor of Arts (Honours)
Semester-V

Course Title: Punjabi (Honours)

Course Code: BARL-5579 ✓

Time Allowed: 3 Hours

Max Marks: 80

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

ਸੈਕਸ਼ਨ ਪਹਿਲਾ

1. ਲੋਕਧਾਰਾ ਤੇ ਸਭਿਆਚਾਰ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦੇ ਹੋਏ, ਇਸ ਬਾਰੇ ਵਿਸਤ੍ਰਿਤ ਜਾਣਕਾਰੀ ਦਿਉ। (16)
2. ਗੁਰਮਤਿ ਸਿਧਾਂਤ ਤੇ ਨੋਟ ਲਿਖੋ। (16)

ਸੈਕਸ਼ਨ ਦੂਜਾ

3. ਸਾਹਿਤ ਤੇ ਲੋਕ ਸਾਹਿਤ ਦੀ ਪਰਿਭਾਸ਼ਾ ਦਿੰਦੇ ਹੋਏ, ਲੋਕ ਸਾਹਿਤ ਦੇ ਰੂਪਾਂ ਦਾ ਵਰਗੀਕਰਨ ਕਰੋ। (16)

4. ਵਾਰ ਕਾਵਿ ਦੀਆਂ ਵਿਸ਼ੇਸ਼ਤਾਵਾਂ ਬਾਰੇ ਦੱਸੋ। (16)

ਸੈਕਸ਼ਨ ਤੀਜਾ

5. ਚੱਠਿਆਂ ਦੀ ਵਾਰ (ਪੀਰ ਮੁਹੰਮਦ) ਤੇ ਨੋਟ ਲਿਖੋ। (16)
6. ਗੁਰਮਤਿ ਵਿਚਾਰਧਾਰਾ ਬਾਰੇ ਨੋਟ ਲਿਖੋ। (16)

ਸੈਕਸ਼ਨ ਚੌਥਾ

7. ਲੋਕਧਾਰਾ ਦੇ ਖੇਤਰ ਬਾਰੇ ਵਿਸਤ੍ਰਿਤ ਜਾਣਕਾਰੀ ਦਿਓ। (16)
8. ਆਸਾ ਦੀ ਵਾਰ ਦੇ ਸੰਦੇਸ਼ ਤੇ ਨੋਟ ਲਿਖੋ। (16)

Exam Code: 103205

Paper Code: 5137

Programme: Bachelor of Arts (Semester-V)

Course Title: History (Honours):

The French Revolution (1789-1799)

Course Code - BARL-5589

Examination Time: 3 Hours

Theory: 80

NOTE: Attempt five questions in all, selecting atleast one question from each section in about 1200 words. Fifth question may be attempted from any section. Each question carries 16 marks.

Section - A

1. Discuss the Political causes of French Revolution.

फ्रांसीसी क्रांति के राजनीतिक कारणों पर चर्चा करें।

2. Describe the Economic and Social causes leading to the French Revolution.

फ्रांसीसी क्रांति के लिए अग्रणी आर्थिक और सामाजिक कारणों का वर्णन करें।

Section - B

3. Describe the achievements of National Assembly.

नेशनल असेंबली की उपलब्धियों का वर्णन करें।

4. What do you know about the oath of tennis court and What is its significance in French revolution?

टेनिस कोर्ट की शपथ के बारे में आप क्या जानते हैं और फ्रांसीसी क्रांति में इसका क्या महत्व है?

Section - C

5. Discuss the contribution of National Convention.

राष्ट्रीय सम्मेलन के योगदान की चर्चा करें।

6. Who were the Jacobians and Girondists? Explain.

जैकोबियन और गिरोन्डिस्ट कौन थे? व्याख्या करें।

Section - D

7. What were the internal reforms introduced by Napoleon.

नेपोलियन द्वारा शुरू किए गए आंतरिक सुधार क्या थे?

8. Discuss the impact of French revolution.

फ्रांसीसी क्रांति के प्रभाव की चर्चा करें।

Exam Code: 103205

Paper Code: 5138

Programme: Bachelor of Arts Semester V

Course Title: Political Science (Honours) Comparative Political Thought

Course Code: BARL-5599

Time Allowed: 3 Hours

Max. Marks: 80

नोट: उम्मीदवारों को प्रत्येक खंड से कम से कम एक प्रश्न का चयन करते हुए, पांच प्रश्नों का प्रयास करना आवश्यक है। पांचवां प्रश्न किसी भी खंड से हल किया जा सकता है। प्रत्येक प्रश्न 16 अंक का होगा।

Section -A

Q1. धर्मशास्त्र में बताए गए जीवन चक्र का संबंध मानव जीवन के लक्ष्यों और विकास से है। विस्तार में बताये।

Q2. मनुस्मृति के अनुसार जीवन के विभिन्न चरणों में विभिन्न जातियों और व्यक्तियों के कर्तव्यों की चर्चा करें।

Section- B

Q3. प्लेटो की दार्शनिक राजा की अवधारणा का परीक्षण करें।

Q4. अरस्तू की गुलामी की अवधारणा को विस्तार से समझाइये।

Section-C

Q5. 'राजा एक अद्वितीय शक्तिशाली स्थिति रखता है लेकिन उसे महान और परोपकारी होना चाहिए।' इस प्रकाश में कौटिल्य के अनुसार राजा के कर्तव्यों और दायित्वों की व्याख्या करें।

Q6. राजनीति और नैतिकता को अलग करने के मैकियावेली के विचार की चर्चा करें।

Section-D

Q7. 'मानव जाति के इतिहास में, गांधीजी अहिंसा के सच्चे समर्थक रहे हैं।' इस प्रकाश में महात्मा गांधी की अहिंसा की अवधारणा पर चर्चा करें।

Q8. डॉ. बी.आर. के सामाजिक न्याय पर विचारों को समझाए।

Exam Code: 103205

Paper Code: 5138

Programme: Bachelor of Arts Semester V

**Course Title: Political Science (Honours) Comparative Political
Thought**

Course Code: BARL-5599

Time Allowed: 3 Hours

Max. Marks: 80

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

Section –A

Q1. The life cycle explained in Dharamshastra is concerned with goals and development of human life. Elaborate.

Q2. Discuss duties of various casts and individuals in different stages of life as per Manusmriti.

Section- B

Q3. Examine Plato's concept of Philosopher King.

Q4. Elaborate Aristotle's Concept of Slavery.

Section-C

Q5. 'King occupies a unique powerful position but he has to be noble and benevolent.' In this light explain the duties and obligations of the King according to Kautiliya.

Q6. Discuss Machiavelli's idea of separation of politics and ethics.

Section-D

Q7. 'In the history of mankind, Gandhiji has been the true champion of non-violence.' In this light discuss Mahatma Gandhi's concept of Non-violence.

Q8. Explain Dr. B.R. Ambedkar views on Social Justice.

Exam Code: 103205
(20)

Paper Code: 5139

Programme: Bachelor of Arts (Honours)
Semester-V

**Course Title: Psychology (Honours): Psychological Testing
and Measurement**

Course Code: BARL-5619 ✓

Time Allowed: 3 Hours

Max Marks: 80

NOTE: Attempt five questions in all, selecting atleast one question from each Section. The fifth question can be done from any Section. Each question carries 16 marks.

SECTION — A

1. Write a detailed note on Psychological Tests. What are the various characteristics of a good psychological test?
16
2. Define Measurement. Write a detailed note on the Scales of Measurement.
16

SECTION — B

3. What is Test Standardization? Explain the Step of Item Analysis in detail.
16

4. Write a detailed note on Item-Writing. Discuss the various formats of Items. 16

SECTION — C

5. What is meant by Reliability? What are the various factors affecting the Reliability of a test? 16
6. Define Validity. Discuss its types in detail. 16

SECTION-D

7. Write a detailed note on the Concept of Norms? 16
8. Discuss in detail the various methods of Sampling. Explain by giving relevant examples of each method. 16

Paper Code: 5107

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARM-5134
Bachelor of Science (Economics)	103305	BECM-5134
Bachelor of Science (Computer Science)	103305	BCSM-5134

Semester-V

Course Title: Computer Science (Database
Management System)

(30)

Time Allowed: 3 Hours

Max Marks: 50

CANDIDATES ARE REQUIRED TO ATTEMPT FIVE 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. WHAT IS DBMS.EXPLAIN ITS COMPONENTS. (10)
2. EXPLAIN NETWORK MODEL IN DETAIL. (10)

SECTION B

- 3. EXPLAIN 3NF AND BCNF FORM IN DETAIL. (10)
- 4. HOW TO PROTECT DATABASE. (10)

SECTION C

- 5. EXPLAIN VARIOUS FEATURES OF ORACLE. (10)
- 6. EXPLAIN DDL AND DML STATEMENTS. (10)

SECTION D

- 7. EXPLAIN ANY 5 IMPLICIT CURSORS. (10)
- 8. EXPLAIN THE CONCEPT OF FUNCTIONS. (10)

Paper Code: 5105

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARM-5333 (I)
Bachelor of Science(Non-Medical)	103305	BSNM-5333 (I)
Bachelor of Science (Economics)		BECM-5333 (I)
Bachelor of Science (Computer Science)		BCSM-5333 (I)

Semester-V

Course Title: Mathematics (Dynamics)
(50)

Time Allowed: 3 Hours

Max Marks: 40

The question paper consists of four sections (A-D). Each section carries two questions. Candidates are required to attempt five questions by selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 8 marks.

SECTION-A

1. (a) Two particles 100 m apart are approaching each other. Particle A has velocity of 5 m/sec and its acceleration is 2 m/sec^2 . Particle B has a velocity of 20 m/sec and is decelerating at 2 m/sec^2 . At the instant

they meet how far will each have travelled from its initial position? (4 Marks)

(b) A heavy particle is projected vertically upwards with an initial velocity of u m/sec. The difference in times when it passes a point 100 metres above the point of projection is $\frac{30}{7}$ seconds. Find u . (4 Marks)

2. (a) State Newton's second law of motion and derive the fundamental equation of dynamics. (4 Marks)

(b) Two bodies of masses 3 kg and 2 kg are hung to the ends of a string passing over a smooth pulley. At the end of 5 seconds the string breaks. How much higher the 2 kg mass will go? (4 Marks)

SECTION-B

3. (a) A body moves down a smooth inclined plane under the action of gravity alone, discuss its motion. (4 Marks)

(b) A particle starts with a velocity u and moves under a retardation equal to k times the space described. Show that the distance moved before it comes to rest is $\frac{u^2}{2k}$. (4 Marks)

4. (a) Define Simple Harmonic Motion and prove that it is periodic. (4 Marks)

(b) A particle is performing S.H.M. between two points A and B. If the period of oscillation is 2π , show that the velocity at any point P is mean proportional between AP and BP. (4 Marks)

SECTION-C

5. (a) The maximum height of a projectile is h and angle of projection is α . Find out the difference of time when it is at a height of $h \sin^2 \alpha$. (4 Marks)
- (b) Two seconds after its projection, a projectile is travelling in a direction inclined at 30° to the horizontal. After one more second, it is travelling horizontally. Determine the magnitude and direction of its initial velocity. (4 Marks)
6. (a) Define simple pendulum and discuss its motion.
- (b) If l is the length of the string and v be the velocity of the bob in a conical pendulum, show that the inclination θ of the string to the vertical is given by $gl \sin^2 2\theta = v^2 \cos \theta$. (4 Marks)

SECTION-D

7. (a) Define Work, power and energy and discuss their units. (4 Marks)
- (b) A particle of mass m is moving with S.H.M. of period T and amplitude α . Find the work done by the force of

attraction when the particle moves from the mean position to an extreme position. (4 Marks)

8. (a) An engine working at the rate of H units is pulling a train up an incline of 1 in n at a steady of v m/sec. If M is the total mass of the train, find the average frictional force. (4 Marks)

(b) State and prove the principle of work and energy. (4 Marks)

Programme	Exam Code	Course Code
Bachelor of Arts	103205	BARM-5333 (II)
Bachelor of Science(Non-Medical)	103305	BSNM-5333 (II)
Bachelor of Science (Economics)		BECM-5333 (II)
Bachelor of Science (Computer Science)		BCSM-5333 (II)

Semester-V

Course Title: Mathematics (Number Theory)

(50)

Time Allowed: 3 Hours

Max Marks: 40

The question paper consist of four section (A-D). Each section carries two question. Candidates are required to attempt five questions by selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries 8 marks.

SECTION-A

1. (a) State and prove division algorithm. (4 Marks)
- (b) Show that 4 does not divide m^2+2 for any integer m . (4 Marks)
2. (a) If $(a,b)=1$ and c divides $(a+b)$, then prove that $(c,a)=(c,b)=1$. (4 Marks)
- (b) Find the g.c.d. of 7200 and 3132 and express it in the form of $7200x + 3132y$. (4 Marks)

SECTION-B

3. (a) Prove that the linear diophantine equation $ax + by = c$ is solvable iff $(a,b) = (a,b,c)$. (4 Marks)
- (b) Find all solutions in positive integers of the equation $56x + 72y = 40$. (4 Marks)
4. (a) State and prove the fundamental theorem of arithmetic. (4 Marks)
- (b) Show that the only prime of the form $n^3 - 1$ is 7. (4 Marks)

SECTION-C

5. (a) Solve $140x \equiv 133 \pmod{301}$. (4 Marks)
- (b) Solve $x \equiv 2 \pmod{3}$, $x \equiv 3 \pmod{5}$, $x \equiv 2 \pmod{7}$. (4 Marks)
6. (a) State and prove Fermat's theorem. (4 Marks)
- (b) Show that 19 is prime using converse of Wilson's theorem. (4 Marks)

SECTION-D

7. (a) For even integer n , prove that $\varphi(2n) = 2\varphi(n)$. (4 Marks)
- (b) Find the number and sum of divisors of 540. (4 Marks)
8. (a) State and prove Mobius inversion formula. (4 Marks)
- (b) If x and y are real numbers, then prove that

$$[x] + [y] \leq [x + y] \quad (4 \text{ Marks})$$

Exam Code: 105405
(40)

Paper Code: 5198

Programme: Bachelor of Business Administration
Semester-V

Course Title: Company Law

Course Code: BBRL-5323 ✓

Time Allowed: 3 Hours

Max Marks: 40

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 (8) marks.

Section — A

1. "A company is a legal person distinct from its members taken individually or collectively." Discuss. Are there any circumstances in which law would disregard legal personality of a company? 8
2. What is Memorandum of Association? What are the different clauses of Memorandum of Association as per Section 4 of the Companies Act, 2013? 8

Section — B

3. Differentiate between Memorandum of Association and Articles of Association. How Articles of Association can be altered? 8
4. Who are liable for misstatement in the prospectus? Explain the extent of civil and criminal liability for such misstatement in the prospectus. 8

Section — C

5. What is Share Capital? Discuss in detail the procedure for further issue of share capital. 8
6. Discuss the provisions of Companies Act, 2013 regarding the appointment and removal of directors. 8

Section - D

7. "Winding up a company is considered as a civil death of a company." Comment on this statement. Explain the concept of compulsory winding up by tribunal. 8
8. What is annual general meeting? Discuss the procedure for conducting the annual general meeting. 8

Exam Code: 105405
(40)

Paper Code: 5199

Programme: Bachelor of Business Administration
Semester-V

Course Title: Entrepreneurship and Small Business

Course Code: BBRL-5324 ✓

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 8 marks

SECTION-A

1. What do you mean by Entrepreneurship? Explain in detail the nature and characteristics of Entrepreneurship.
2. Explain the role of Government in the development of women entrepreneurship.

SECTION –B

3. Discuss the role of motivation in influencing entrepreneurial behaviour.
4. Explain the relevance and achievements of Entrepreneurial Development Programmes.

SECTION –C

5. Explain the concept of Business Venture. Discuss its start-up process
6. Explain the growth and diversification strategies for a small enterprise?

SECTION –D

7. Explain various National Policies initiated by government for small business development.
8. Discuss the contribution of Commercial Banks in promoting and servicing small business.

Exam Code: 105405
(40)

Paper Code: 5200

Programme: Bachelor of Business Administration
Semester-V

Course Title: Cost Accounting

Course Code: BBRL-5325 ✓

Time Allowed: 3 Hours

Max Marks: 40

Note: Attempt 5 questions selecting at least 1 question from each section. Fifth question may be selected from any section. Each question carries 8 marks.

SECTION-A

1. What are the advantages of Cost Accounting? Differentiate between Financial Accounting and Cost Accounting.
2. The following expenses are related to the production of 1,000 units during the month of October, 2023

Particulars	Rs.	Particulars	Rs.
Direct Material	12,000	Indirect Labour	300
Wages	10,000	Office Expenses	1,500
Factory Rent and Rates	1,000	Other Factory Expenses	500
Depreciation on Machinery	500	Office Salaries	1,800
Supervisor's Salary	1,500	Printing and Stationery	200
Indirect Material	200	Administrative Expenses	2,500

Prepare a statement of cost showing:

- a. Prime Cost.
- b. Works Cost.
- c. Total Cost
- d. Cost per unit
- e. Percentage of various Expenses on total cost

SECTION-B

3. The product of a manufacturing concern passes through 3 processes. Details of costs and production during March, 2010 were as follows:

	Process A	Process B	Process C
Raw Material used (tons)	200	71	164
Cost per ton	Rs. 100	Rs. 300	Rs. 50
Direct Wages	Rs. 8,000	Rs. 3,490	Rs. 2,850
Overheads	Rs. 2,520	Rs. 2,400	Rs. 3,820
Sale of Scrap per ton	Rs. 80	Rs. 60	Rs. 120
The product of the three Processes is dealt with as follow:			
Sent to warehouse for Sale	25%	50%	100%
Sent to next process	75%	50%	--

In each process 6% of total weight is lost and 8% is scrap. You are required to prepare process account showing the cost per ton of each process.

4. Prepare Contract and Contractee's account from the following Particulars

Particulars	Rs.
Materials sent to site	24,000
Direct Wages	23,000
Chargeable Expenses	20,000
Plant Installed	40,000
Indirect Expenses	15,000
Wages Accrued	12,000
Materials returned to store	4,000
Plant at site at the end	30,000
Materials at site at the end	4,000
Cash received (75% of work Certified)	75,000
Work Completed	3/5
Contract Price	2,50,000

SECTION —C

5. What are the managerial applications of marginal costing and CVP Analysis for decision making?
6. From the following Data calculate:
- a) Labour Cost Variance
 - b) Labour Price Variance
 - c) Labour Efficiency Variance
 - d) Labour Mix Variance

	Standard		Actual	
	Hours	Wage Rate (Rs.)	Hours	Wage Rate (Rs.)
Skilled Workers	800	4.00	700	4.40
Unskilled Workers	400	2.00	500	1.80
	1200		1200	

SECTION-D

7. What is Budgetary Control? Explain the various types of Budgets.
8. Monu Products Ltd., produce a standard product. The estimated costs per unit are given below:

	Rs.
Raw Material	10
Direct wage	8
Direct Expenses	2
Variable Overheads	3
Total	23

Semi-variable overheads at 100% activity level (10,000 units) are expected to be Rs. 40,000/- and these overheads vary in steps of Rs. 2,000/- for each change in output of 1000 units. Fixed overheads are estimated at Rs. 50,000/-. Selling price per unit is expected to be Rs. 40/-.

Prepare a flexible budget at 50%, 70% and 90% level of activity

Exam Code: 105405
(40)

Paper Code: 5201

Programme: Bachelor of Business Administration
Semester-V

Course Title: Management of Banking Operations

Course Code: BBRL-5326 (Opt-CI) ✓

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 8 marks.

SECTION-A

1. Discuss the salient features of the latest monetary policy of RBI? Also discuss the limitations of Monetary policy. 8
2. What do you mean by Negotiable Instrument? Discuss the different types of Negotiable Instrument. 8

SECTION-B

3. Discuss the principles of good lending? Also explain the various factors influencing lending policies of Bank. 8

4. Explain Bank Investment? Discuss the different types of investments made by the banks? 8

SECTION —C

5. Explain the main reasons for assets becoming NPAs. What are Prudential Norms for asset classification? 8
6. Explain Anti money Laundering? Discuss the different stages of money laundering. Also discuss the steps in the process of money laundering. 8

SECTION —D

7. Explain briefly the General and Special relationship between Banker and Customer? 8
8. Discuss in detail the nature and functions of Merchant Banker? 8

Exam Code: 105405
(40)

Paper Code: 5202

Programme: Bachelor of Business Administration
Semester-V

Course Title: Insurance and Risk Management

Course Code: BBRL-5327 (Opt-CII) ✓

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 8 marks.

SECTION-A

1. Explain in detail the Salient Features of IRDA Act 1999?
8
2. What are the various methods of calculation of surrender value in Life Insurance?
8

SECTION —B

3. (i) Explain the process of Rate Fixation in Fire Insurance?
4
- (ii) What are the various Policy Conditions for Fire Insurance?
4

4. Discuss various types of Marine Insurance policies available in India? 8

SECTION —C

5. Define Corporate Risk Management? Explain in detail the process of Corporate Risk Management. 8
6. Explain in detail the various tools and techniques for perception of risk? 8

SECTION —D

7. Define a Captive Insurer? Explain why Captive Insurers are formed. 8
8. What do you mean by Risk Transfer? Explain in detail various types of Risk Transfer. 8

Exam Code: 107405
(20)

Paper Code: 5164

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

Course Title: rDNA Technology-I

Course Code: BBTM-5061

Time Allowed: 3 Hours

Max Marks: 30

Candidates are required to attempt five questions, selecting at least one question from each of the four sections (A-D). The fifth question may be attempted from any section. Draw well labelled diagram where ever necessary. Each question carries 6 marks.

Section A

1. (a) Diagrammatically explain procedure of genetic engineering. (2)
(b) Write down source, recognition sequence of Eco RI , Bam HI. (2)
(c) Define and give examples of isoschizomers and rare cutting enzymes. (2)
2. (a) Write down Characteristics features and functions of RNase-H, DNase-I, Nuclease S. (2)

(b) Discuss applications of DNA-Pol I, Klenow fragment, T4DNA polymerase, Reverse transcriptase and Taq polymerase. (4)

Section B

3. (a) Write down importance of multiple cloning site and copy number for the construction of vector. (2)
(b) Differentiate between insertional and replacement Bacteriophage lambda based vectors. (4)
4. (a) Differentiate between pUC 8, phagemid and cosmid. (4)
(b) Write down procedure of isolation and purification of DNA from plants. (2)

Section C

5. (a) Explain the procedure of CaCl₂ uptake method and electroporation method in detail. (4)
(b) Write down a short note on transfection, microprojectile method. (2)
6. (a) Describe phenomenon of insertional inactivation of antibiotic gene and write down the procedure of identification of recombinants. (4)
(b) What do you know about blue white selection. (2)

Section D

7. (a) Explain procedure of Random priming and End labelling. (3)
(b) Write down principle and procedure of Western blotting. (3)
8. (a) Discuss Non-Radioactive labelling techniques. (3)
(b) Write down principle and procedure of Nucleic acid hybridization. (3)

Exam Code: 107405

Paper Code: 5165

Programme: Bachelor of Science (Biotechnology)

Semester – V

Course Title: Plant Biotechnology-I

Course Code: BBTM-5062

Time Allowed: 3 Hours

Maximum Marks: 30

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 6 marks.

SECTION – A

1. a) Define plant nutrition. What are plant macronutrients and micronutrients? Give examples
b) Elaborate historical background of plant tissue culture.
- 2 Define Murashige and Skoog's (MS) medium. Discuss in detail about chemical composition of MS medium. How will you prepare MS medium from stock solutions?

SECTION – B

3. a) What are auxins? How they are synthesized in plants?
b) Discuss briefly about physiological functions of cytokinins in plants.
4. Discuss briefly about physiological functions and biosynthesis of gibberellins in plants.

SECTION – C

5. What is plant-explant-plant concept? Discuss in detail about various factors influencing growth and development of plantlets in tissue culture.
6. a) What is tissue competency? Describe in detail about *in vitro* developmental pathways.
b) Explain dedifferentiation and redifferentiation of cells

SECTION – D

7. Elaborate in detail about direct gene transfer methods for transgenic plant production.
8. a) What are transgenic plants? How they are produced?
b) Discuss briefly the structure and role of Ti plasmid in genetic transformation.

Exam Code: 107405
(20)

Paper Code: 5166

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

Course Title: Animal Biotechnology-I

Course Code: BBTM-5063 ✓

Time Allowed: 3 Hours

Max Marks: 30

Attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. Each question carries equal (6) marks.

Section — A

1. Write Short Notes on:
 - a. Elements of Aseptic technique
 - b. Design and Layout of ATC Lab
2. What is cell Viability? How will you check the viability of cells in culture?

Section — B

3.
 - a) What are the potential risks associated with routine cell culture?
 - b) Write short note on cross contamination. List the steps to prevent the cellular cross contamination.

4. What are P1, P2 and P3 facility? What are their applications?

Section — C

5. a) What is the importance of pH While culturing animal cells? How is the pH maintained in culture media?
b) Write a note on Mechanical Stabilizers and adhesion factors.
6. What are constituents of serum? Describe the advantages and disadvantages of serum supplemented medium?

Section — D

7. Write notes on different substrates used for the growth of cells. Describe the advantages and disadvantages of each
8. Write Notes on:
a) Population Doubling time
b) Multiplication Rate
c) Phases of Cell Cycle

Exam Code: 107405

Paper Code: 5167

Programme: Bachelor of Science (Bio-Technology)

Semester-V

Course Title: Bioprocess Engineering-I

Course Code: BBTM-5064

Time Allowed: 3 Hours

Max Marks: 30

Note: Candidates 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 6 marks.

Section-A

- 1.State Fourier's Law of heat transfer and explain its significance in chemical and biochemical processes. (6)
2. Describe the methods commonly used to enhance oxygen transfer in bioreactors. (6)

Section-B

- 3.Define the yield coefficient and explain its significance in microbial growth. (6)
- 4.What is meant by microbial growth kinetics, and why is it important in bioprocessing? (6)

Section-C

5. Discuss the following
 - a) Non-competitive inhibition (3)
 - b) Multistage feedback system (3)
- 6.What are effector molecules, and how do enzyme inhibitors and activators act as effectors? (6)

Section-D

7. Why is sterilization important in bioprocesses, and what are the main goals of air and media sterilization? (6)
8. What is the Del factor, and how is it used in calculating sterilization requirements? (6)

Exam Code: 107405
(20)

Paper Code: 5168

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

Course Title: Biochemical and Biophysical Techniques-I

Course Code: BBTM-5065

Time Allowed: 3 Hours

Max Marks: 30

Attempt 5 questions, selecting atleast one from each of section A, B, C and D. Fifth question can be attempted from any section. Each question carries six marks

Section A

1. What is Sedimentation coefficient? Discuss the factors affecting sedimentation coefficient? (6 marks)
2. a) List different types of rotors and explain how we can take care of them
B) Write a note on Density gradient centrifugation. (3+3 marks)

Section B

3. Write a note on the principle and applications of Affinity Chromatography? (6 marks)
4. A) Write a note on gel exclusion chromatography

B) What is partition Coefficient?

(4+2 marks)

Section C

5. Discuss the principle and applications of High performance liquid chromatography (6 marks)
6. a) Briefly explain the applications of Gas liquid chromatography
b) Write a note on Fast Protein liquid chromatography (3+3 marks)

Section D

7. Write a note on basic principle and instrumentation of ESR (6 marks)
8. a) Discuss principle of Lambert Beer's Law.
b) Theory and principle of double beam UV/V is spectroscopy (3+3 marks)

Exam Code: 107405
(20)

Paper Code: 5169

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

Course Title: Industrial Biotechnology-II

Course Code: BBTM-5066 ✓

Time Allowed: 3 Hours

Max Marks: 30

Candidates are required to attempt five questions, selecting at least one question from each section. A, B, C, D. The fifth question may be attempted from any of these four sections. Each question carries 6 marks.

Section — A

1. a) Write a brief note on microbial production process of streptomycin? Name the media components used at industrial scale production of streptomycin? (3)
b) Explain the microbiology of acetone-butanol fermentation? Give only the flow chart of production process? (3)
2. a) Write a comprehensive note on various types of feed stocks used industrially for the production of biofuels? (3)

b) What are xenobiotics? Write a brief note on microbial degradation of any two of these environmental pollutants? (3)

Section — B

3. Write a comprehensive note on microbial production of
 - Vitamin B12
 - Glutamic acid(6)
4. Name the different types of wines available commercially? Explain the industrial microbial process for the production of any two wines studied by you? (6)

Section—C

5. a) Explain the various factors affect the process of vermicomposting? What is vermiwash, give advantages of its use over traditional fertilizers? (3)
b) Give a diagrammatic sketch for the production of BT-cotton? What are the advantages using BT-cotton over the traditional cotton varieties? (3)
6. Give a detailed account of single cell protein production from.
 - Yeast
 - Spirulina(6)

Section — D

7. a) Write a detailed note on BNF? Give its significance in process of atmospheric nitrogen fixation? (3)
b) What do you know about phosphate solubilising bacteria? How these bacteria help in enrichment of phosphate in agricultural fields? (3)
8. Comprehensively describe the process of microbial association with higher plants? Explain with help of at least two examples studied by you? (6)

Exam Code: 107205

Paper Code: 5203

Programme: Bachelor of Computer Applications

Semester-V

Course Title: Computer Networks

Course Code: BCAL-5111

Time Allowed: 3 Hours

Max Marks: 60

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 12 marks.

Section A

1. (a) What do you mean by Computer Networks? What is guided and unguided media? Explain the Coaxial Cable. (8)
(b) Discuss different types of networks. (4)
2. Explain TCP/IP Model and Compare TCP/IP with OSI Model. (12)

Section B

3. (a) What are Analog and Digital signals? Explain how to convert Analog signals to Digital signals using the PCM technique. (6)
(b) Explain Packet switching. (6)
4. What are Error Detection and Correction? How to detect single-bit data Error in Networks. (12)

Section C

5. (a) How Token Ring works.
(b) Explain The Dijkstra Algorithm. (2x6)
6. Differentiate IPV4 and IPV6 and explain in detail the header format of IPV6. (12)

Section D

7. What is Cryptography? Explain different Keys used in cryptography. (12)
8. What are the various services provided by UDP? How User Datagram Protocol works to send the data? (12)

Exam Code: 107205
(50)

Paper Code: 5204

Programme: Bachelor of Computer Application
Semester-V

Course Title: Web Technologies (Full Stack Development)

Course Code: BCAL-5112 ✓

Time Allowed: 3 Hours

Max Marks: 60

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 of equal marks (12 Mark).

Section A

1. a) What is JavaScript? Explain its features.
b) Explain the concept of arrow function in detail.
(2x6)
2. What is DOM? Explain its structure. List various events in DOM. How events are handled in DOM? (12)

Section B

3. Explain the following: -
a) Function Component

b) the process of fetching data using API in React.

(2x6)

4. Explain methods of mounting phase of React component along with their order of execution.

(12)

Section C

5. Discuss NPM in detail and explain HTTP and URL module.

(12)

6. a) How to upload the file in Node?

b) How to create database and Collections using Node?

(2x6)

Section D

7. a) What is Express? How express working with HTTP Methods?

b) Explain Templating in Express.js. (2x6)

8. How Express application use the Application-level middleware and Built-in middleware? (12)

Exam Code: 107205
(50)

Paper Code: 5205

Programme: Bachelor of Computer Application
Semester-V

Course Title: Operating System

Course Code: BCAL-5113 ✓

Time Allowed: 3 Hours

Max Marks: 60

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

SECTION-A

1. Define the terms in detail: Multiprocessing, Multiprogramming, Multitasking, Time Sharing.
2. Define the terms in detail: Distributed system, Real time system, Threads, system calls.

SECTION-B

3. What is CPU scheduling? Explain any two algorithms of cpu scheduling in detail with examples.
4. What do you mean by critical section Problem? Which algorithm is best to avoid jumping of processes in critical section? Explain any one in detail.

SECTION-C

5. Explain in detail
 - (a) Dead lock Prevention
 - (b) Dead lock avoidance
6. Differentiate between Paging and Segmentation in detail? Explain with diagrams.

SECTION-D

7. What do you mean by page fault? Also explain demand paging in detail.
8. Explain
 - (a) Thrashing
 - (b) Disk Scheduling

Exam Code: 107205
(50)

Paper Code: 5206

Programme: Bachelor of Computer Application
Semester-V

Course Title: Object Oriented Programming-II

Course Code: BCAL-5114 ✓

Time Allowed: 3 Hours

Max Marks: 60

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 is of equal (12 Mark) marks.

Section A

1. (a) Explain the Object-Oriented features of Java and what are the various operators used in Java? (6)
(b) Difference between Classes and Objects? Explain with example. (6)
2. How to declare a string? How to compare and concatenate the strings with example and also explain string tokenizer. (12)

Section B

3. (a) What is Inheritance? Explain different types of Inheritance. (6)

- (b) What is Polymorphism? Explain Runtime Polymorphism with example. (6)
4. What are packages? What are the advantages of using packages and also Explain the process of importing packages in a class. (12)

Section C

5. How Exception Handling is done in Java? Explain Exception Handling with try-catch block. (12)
6. What is thread? Explain the life cycle of threads. (12)

Section D

7. Write the note on following:
(a) File input and output stream
(b) JDBC (2x6)
8. Explain JDBC drivers, steps to connect to the database, connectivity with MYSQL. (12)

Paper Code: 5210
(20)

Exam Code: 105705

Programme: Bachelor of Science (Information Technology)
Semester-V

Course Code: BITL-5116/

Exam Code: 107205

Programme: Bachelor of Computer Application Semester-V
Course Code: BCAL-5117

Course Title: Data Mining and Data Warehousing

Time 3 Hours

Max Marks: 60

Note: Attempt any five questions selecting at least one question from each section, fifth question may be attempted from any section. All questions carry equal marks (12).

SECTION A

1. What is Data Mining? Explain Data Mining Process.
(12)
2. Explain the Applications and Trends in Data Mining.
(12)

SECTION B

3. What do you know about Data Mining Techniques? (12)
4. Explain distance-based algorithms. (12)

SECTION C

5. Explain the Need and Evolution of Data Warehousing. (12)
6. Explain Data Warehouse Architecture. (12)

SECTION D

7. Compare and contrast Host based, Single stage, LAN based Data Warehouse. (12)
8. What are the most efficient tools used for implementation of Data Warehouses? (12)

**Exam Code: 109105
(90)**

Paper Code: 5186

**Programme: Bachelor of Commerce (Honours)
Semester-V**

Course Title: Management Accounting

Course Code: BCOL-5091 ✓

Time Allowed: 3 Hours

Max Marks: 80

Note: 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. What do you mean by Management Accounting?
Discuss some of the important recent trends in management reporting.

(4,12)

2. Following are the two Balance sheets of A Ltd and B Ltd as at 31.03.2021

Particulars	A Ltd (Rs. in Lakh)	B Ltd (Rs. in Lakh)
I. Equity and Liabilities:		
1. Shareholders' Funds:		
Share Capital	658	493
2. Non-current Liabilities	225	318
3. Current Liabilities:		
a) Trade Payables (Sundry Creditors)	42	154
b) Other Current Liabilities	78	62
Total	1003	1027
II. Asset		
1. Non-Current Assets:		
Fixed Assets	635	513
2. Current Assets:		
a) Inventory (Stock)	100	174
b) Trade Receivable (S. Debtors)	220	226
c) Cash and Cash equivalents	27	72
d) Other Current Assets	21	42
Total	1003	1027

Prepare Common Size Balance Sheet and Comment.
(16)

Section- B

3. The Balance Sheet of Jamuna Ltd. as at 31.3.2023 is given below:

Particulars	31.3.2023(Rs.)	31.3.2022(Rs.)
I. Equity and Liabilities:		
1. Shareholders' Funds:		
Equity Share Capital	70,000	60,000
Reserve and Surplus	7,000	12,000
2. Non-current Liabilities		
Mortgage Loan	20,000	10,000
3. Current Liabilities		
Trade Payables:		
-Creditors	12,000	36,000
-Bills Payable	1,000	2,000
Total	1,10,000	1,20,000
II. Assets		
1. Non-Current Assets:		
Fixed Assets (Net Tangible)	65,000	56,000
2. Current Assets:		
Inventory (Stock)	10,000	15,000
Trade Receivable (s. Debtors)	25,000	40,000
Cash and Cash equivalents	8,000	5,000
-Cash in Hand	2,000	4,000
-Cash at Bank		
Total	1,10,000	1,20,000

Additional Information:

	31.3.2023 (Rs.)	31.3.2022 (Rs.)
Net Sales	1,50,000	1,00,000
Less: Cost of Sales	1,10,000	70,000
Gross Profit	40,000	30,000
Less: Operating Expenses	25,000	20,000
Net Profit	15,000	10,000

Find Out

1. Current Ratio	3.Receivables Turnover Ratio	5.Average Collection Period
2. Acid Test Ratio	4.Inventory Turnover Ratio	6. Assume 360 Days in a year

(16)

4. What is Cash Flow Statement? Describe the direct & indirect method of computing cash from operating activities.

(4,6,6)

Section-C

5. The following data are available from the records of a company:

	Rs.
Sales	60,000
Variable Cost	30,000
Fixed Cost	15,000

You are required to:

1. Calculate the P/V Ratio, Break Even and Margin of Safety at this level.
2. Calculate the effect of 10% increase in sale price.
3. Calculate the effect of 10% decrease in sale price.

(16)

6. What are the managerial applications of Marginal Costing and CVP Analysis for decision making?

(8,8)

Section-D

7. What do you mean by Responsibility Accounting?
Explain in brief various Responsibility Centres?
(4,12)
8. What is Activity Based Costing? Briefly describe its
features?
(8,8)

Exam Code: 109105
(20)

Paper Code: 5187

Programme: Bachelor of Commerce (Honours) Semester-V

Course Title: Income Tax

Course Code: BCOL-5092 ✓

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt five questions, selecting at least one question from each section. The fifth question may be attempted from any section. All questions carry equal 16 marks

Section A

1. Define Income Tax as per the Income Tax Act, 1961.
Discuss its nature and scope. 16
2. What is Agricultural Income? Explain Provisions relating to agricultural Income in detail. 16

Section B

3. What is Salary? Discuss the steps in the calculation of the salary of an Individual. 16
4. Discuss the provisions relating to Business and Profession in detail. 16

Section C

5. What are short-term and long-term capital gains? Write a note on exempted capital gains. 16
6. Mr. Rishab gives the following particulars of previous year 2022- 23 Family Pension received Rs. 2,500 per month;
Winning from lotteries Rs. 35,000 (Net);
Interest received on investment of Rs. 22,000 in 10% Tax free Debentures of AB Ltd. (Listed);
Interest received on investment of Rs. 59,000 in 10% Debentures of XY Ltd. (Unlisted);
Interest from Maharashtra Government Bonds Rs. 8,500;
Interest from Tax-free Punjab Government bonds Rs. 6,200;
His expenses Were:
Rs. 500 charged by his banker as commission on interest realized and 2 % brokerage to buy and sell securities;
Interest paid on loan taken to buy XY Ltd. debentures Rs.1,000.
Expenses on purchasing lottery tickets were Rs.1,000.
Compute income from other source for the A.Y.2023-24. 16

Section D

7. Discuss the major deductions an individual can claim from taxable income under the Income Tax Act. 16
8. What is the Tax Deduction of source? Discuss in detail. 16

Exam Code: 109105
(90)

Paper Code: 5188

Programme: Bachelor of Commerce (Honours)
Semester-V

Course Title: Operations Research

Course Code: BCOL-5093 ✓

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 equal 16 marks.

SECTION —A

1. What are the important techniques used in Operations Research? Explain their limitations.
2. Solve the following LPP with simplex method

$$\text{Minimize } Z = 4x_1 + 6x_2$$

Subject to Constraints:

$$x_1 + 2x_2 \geq 80$$

$$3x_1 + x_2 \geq 75$$

$$\text{where } x_1 + x_2 \geq 0$$

SECTION -B

3. Solve the following transportation problem and test its optimality.

To From	Project A	Project B	Project C	Plant Capacity
Plant W	4	8	8	56
Plant X	16	24	16	82
Plant Y	8	16	24	77
Requirement	72	92	41	215 205

4. Five jobs are to be processed and five machines are available. Any machine can process any job with resulting profit (in rupees) as follows:

Machines Jobs	A	B	C	D	E
P	32	38	40	28	40
Q	40	24	28	21	36
R	41	27	33	30	37
S	22	38	41	36	36
T	29	33	40	35	39

Find assignment pattern that maximize the sales.

SECTION —C

5. Find the sequence for the following Eight jobs, that will minimize the total elapsed time for the completion of all the jobs. Each job is processed in the same order CAB. Entries give the time in hours on the machines.

Jobs		1	2	3	4	5	6	7	8
Time on Machine	A	4	6	7	4	5	3	6	2
	B	8	10	7	8	11	8	9	13
	C	5	6	2	3	4	9	15	11

6. a) Solve the following game graphically.

Player B \ Player A		I	II	III	IV
I		8	5	-7	9
II		-6	6	4	-2

- b) Solve the following game by using Odds Method.

Player B \ Player A		I	II
I		1	-1/2
II		-1/2	0

SECTION —D

7. Consider the following table

Event	1-2	1-3	1-4	2-5	3-7	4-6	5-7	5-8	6-7	6-9	7-10	8-10	9-10
Duration (Days)	10	8	9	8	16	7	7	6	7	5	12	13	15

Draw the Network diagram and find out the Critical Path, Head and tail Slack, Total and Independent Floats.

8. a) Explain the role of queuing theory in decision making and discuss its applications.

b) A bank plans to open a single server drive in banking facilities at a particular centre. It is estimated that 28 customers will arrive each hour on an average. If on an average, it requires 2 minutes to process a customer's transaction, determine the length of the drive way required to accommodate all the arrivals, on an average, if 20 feet of drive way is required for each that is waiting for service.

Exam Code: 109105
(90)

Paper Code: 5189

Programme: Bachelor of Commerce (Honours)
Semester-V

Course Title: Financial Management

Course Code: BCOL-5094 ✓

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 equal 16 marks.

Section A

1. Define Financial Management. Discuss its nature and objectives in detail.
2. What is the relationship between risk and return as per CAPM. Discuss in detail.

Section B

3. A chemical company is considering investment in a project that costs Rs. 5,00,000. The life of the project is 5 years and estimated salvage value is zero. Tax rate is 55%. The company uses straight line depreciation and

proposed project has estimated earnings before depreciation and before tax as follows:

Year	Earnings before depreciation and tax (Rs.)
1	1,00,000
2	1,00,000
3	1,50,000
4	1,50,000
5	2,50,000

Determine the following:

- Payback period
- Average- rate of Return
- Net Present Value at 15%
- Gross Profitability Index at 15%

The following are the present value factors at 15% p.a.

Year	1	2	3	4	5
P.V. Factor	0.870	0.756	0.658	0.572	0.497

- Explain in detail the long term sources of finance.

Section C

- Critically examine the MM approach to capital structure. Explain with suitable example the arbitrage process of MM to reach equilibrium level.

6. What are the assumptions of Walter model of dividend effect? Does dividend policy affect the value of the firm under this model? Explain.

Section D

7. What are the objectives of cash management? Discuss Baumol's model of cash management.
8. Discuss different concepts of working capital. Describe various sources of short term finance in detail.

Exam Code: 109105
(90)

Paper Code: 5190

Programme: Bachelor of Commerce (Honours)
Semester-V

Course Title: Human Resource Management

Course Code: BCOL-5095

Time Allowed: 3 Hours

Max Marks: 80

Note: Attempt 5 questions, selecting at least 1 question from each section. The fifth question may be attempted from any section. Each question carries equal (16) marks.

Section-A

1. What do you mean by Human Resource Management?
Explain the scope of HRM in detail.
2. Discuss the factors affecting Human Resource Planning.

Section-B

3. Discuss the process of Job Evaluation in detail.
4. What do you mean by employee retention? Explain the retention strategies in detail.

Section-C

5. Discuss the process of training and development in detail.
6. Explain the methods of training programme.

Section-D

7. Discuss the components of Employee Remuneration.
8. Define Performance Appraisal. Discuss its purpose and essentials of effective performance appraisal system.

Exam Code: 109105
(90)

Paper Code: 5191

Programme: Bachelor of Commerce (Honours)
Semester-V

Course Title: Production and Operations Management

Course Code: BCOL-5096 ✓

Time Allowed: 3 Hours

Max Marks: 80

Important Note: Attempt 5 questions each carry 16 marks. Attempt one question from each section. The fifth question may be attempted from any section.

Section-A

1. Discuss the sequencing techniques with examples in detail. (16)
2. Discuss the following concepts:
 - 1) Market Analysis
 - 2) Network Analysis (2*8=16)

Section- B

3. Discuss the concept of productivity and its importance in detail. (16)
4. Discuss the concepts in detail:
 - a) work study

b) Principles of Motion economy.

(2*8=16)

Section -C

5. Explain the concept of quality and total quality management along with its pros and cons and applicability in current scenario. (16)
6. Explain the concepts:
 - a) Relevant costs in inventory management
 - b) Statistical Quality Control (2*8=16)

Section-D

7. Explain the concept of logistic management in detail. (16)
8. Explain the concepts:
 - a) components of supply chain management
 - b) safety stock (2*8=16)

Exam Code: 108505
(40)

Paper Code: 5192

Programme: Bachelor of Commerce Semester-V

Course Title: Management Accounting

Course Code: BCRL-5093

Time Allowed: 3 Hours

Max Marks: 40

Note: Candidates are required to attempt five questions, selecting at least one question from each section (A-D) and the fifth question may be attempted from any Section. Each question carries 8 marks.

Section-A

1. How does Management accounting differs from 'Financial accounting'? What are the limitations of Management accounting?
2. With the help of the following information prepares Comparative Income Statement:

Particular	31-03-2023	31-03-2022
Revenue from operation (Sales)	Rs.6,00,000	Rs. 4,50,000
Sales Returns	Rs. 3,00,000	Rs.1,50,000
Cost of Material Consumed % age of Net Revenue from oprtations	50%	60%
Other Expenses %age of Net Revenue from operations — Cost of Material Consumed	10%	20%
Rate of Income Tax	40%	40%

Section-B

3. What is Fund Flow Statement? Distinguished between Fund's Flow Statement and Cash Flow Statement.
4. From the following information of a Taxtile company complete the Performa of Balance Sheet if it's sales are Rs. 32, 00,000:

Sales to net worth	2.3 times
Current debt to net worth	42%
Total Debt to Net Worth	75%
Current Ratio	2.9 times
Net sales to inventory	4.7 times
Average collection period	64 days
Fixed assets to net worth	53.2%

Proforma Balance Sheet

<u>Particulars</u>	<u>Rs.</u>
I. <u>Equity and Liabilities</u>	
Shareholders' Funds (Net Worth)	?
Non- Current Liabilities (Long Term Debt)	?
Current Liabilities (Current Debt)	?
II. <u>Assets</u>	
<u>Non-Current Assets (Fixed Assets)</u>	?
<u>Current Assets</u>	
Stock	?
Debtors	?
Cash	?

Section-C

5. What is meant by responsibility Centre? How are these centers determine and for what purpose?
6. From the following Balance Sheet of ABC Co. Ltd. as at 31st March 2023, prepare a Cash Flow Statement:

Particulars	31-3-23 Rs.	31-3-22 Rs.
1. <u>Equity and Liabilities</u>		
Shareholders Funds:	6,00,000	4,50,000
Share Capital (Equity Shares of Rs. 100 each)		
Reserve and Surplus:		
General Reserve	60,000	60,000
Capital Reserve (Profit on Redemption of Debentures)	1,000	-
Security Premium Reserve	15,000	-
Surplus i.e. Balance as per Statement of Profit and Loss	1,10,000	45,000
Non-Current Liabilities:		
8% Debentures	2,00,000	2,50,000
Current Liabilities:		
Trade Payables	1,90,000	2,20,000
Provision for Taxation	50,000	40,000
Total	12,26,000	10,65,000
2. <u>Assets</u>		
<u>Non-Current Asset :</u>		
Land	1,98,000	1,83,000
Plant	7,25,000	6,00,000
Cumulative Depreciation on Plant	(1,45,000)	(1,20,000)
Non Current Investment	40,000	30,000
<u>Current Assets:</u>		
Stock	1,48,000	1,85,000
Debtors	1,62,000	1,20,000
Cash	98,000	67,000
Total	12,26,000	10,65,000

Note :

<u>Contingent Liabilities</u>	31-3-2023	31-3-2022
Proposed Dividend	Rs. 60,000	Rs. 45,000

Additional Information:

During the year plant costing Rs. 40,000 was sold for Rs. 15,000. Accumulated Depreciation on Plant was Rs. 20,000. Loss on sale of Plant was charged to statement of profit and loss. Tax paid during the year was Rs. 55,000. Debentures were partially redeemed on 31-3-2023. Dividend of Rs. 45,000 was paid during the year.

Section-D

7. Write a note on:
1. Transfer Pricing
 2. Cost Volume Profit Analysis (C.V.P.)
8. A radio manufacturing company finds that While it costs Rs. 6.25 each to make a component X-2370, same is available in the market at Rs. 5.75, with an assurance of continued supply.

The breakdown of cost is

Direct Material	Rs. 2.75 each
Direct Labour	Rs. 1.75 each
Other variables	Rs. 0.50 each
Depreciation and other fixed cost	Rs. 1.25 each
Total	<u>Rs. 6.25 each</u>

(a) Should you make or buy?

(b) What would be your decision if the supplier offers the component at Rs. 4.85 each?

Exam Code: 108505
(40)

Paper Code: 5193

Programme: Bachelor of Commerce
Semester-V

Course Title: Direct Tax Law

Course Code: BCRL-5094

Time Allowed: 3 Hours

Max Marks: 40

Note: Attempt 5 questions, selecting atleast one question from each section. The fifth question may be attempted from any unit. Each question carries equal marks. (8 each)

Section-1

1. Income tax is charged on the income of the 'previous year'. Do you fully agree with this statement? If not, what are the exceptions.
2. Mr. Y a citizen of the U.S.A. came to India for the first on 1-6-2016. He stayed here without any break for 3years and left for Sri Lanka on 1-6-2019. He returned to India on 1-4-2020 and went back to the U.S.A. on 1-12-2021. He was posted back to India on 20-1-2023. Compute his residential status for the Assessment Year 2023-24/ Previous Year 2022-23.

Section-II

3. Mrs. A is an employee of a Company. She supplies the following particulars of her income:
- Basic Salary Rs. 25,000 p.m.
 - DA 50% of Salary (50% of DA enters into pay for service benefits).
 - Marriage Allowance Rs. 600 p.m.
 - Education allowance Rs. 300 p.m. (Allowance @Rs. 100 per child)
 - Bonus one month's salary
 - Entertainment allowance Rs. 1200 p.m.
 - She and her employer contribute @ 16% of salary to R.P.F
 - During 2022-23, she had received 2 month's basic salary as advance.
 - She is provided rent- free house owned by the employer in city (population 11 Lakh).
 - She is also in receipt of medical allowance of Rs. 300 p.m.
- Calculate her salary income for the Assessment Year 2023-24.
4. Define 'Annual value' and state the deductions that are allowed from the annual value in computing the income from house property.

Section-III

5. What do you understand by the term 'Capital Gains' used in the Income Tax Act? What are the rules regarding Exemption of Capital Gains?
6. Following are the particulars of the income of Mr. S.Kumar

Particulars	Amount (Rs.)
Director's Fees	2000/
Income from agricultural land in Pakistan	5000/
Ground- Rent for land in Pathankot	10,000/
Interest on Postal Savings Bank Account	100/
Interest on deposits	500/
Dividend from Foreign Company	700/
Rent from Sub-Letting a house	26,500/
Rent payable by Mr. S for the sub-let house	12,000/
Other expenses incurred on this sub-let house	1000
Winnings from Horse Race	12,300
Interest on Securities	4000/

You are required to compute "Income from Other Sources" of Mr. S. Kumar for the 2023-24.

Section-IV

7. Briefly explain the provisions regarding Tax Deduction at Source.
8. Mr. Ram who is totally blind submits the following information. Compute his total income:

Particulars	Amount (Rs.)
Salary	29,00,000/-
Rent received from House (p.m)	30,000/-
Short Term Capital Gain	1,20,000/-
Dividend from Co-operative society	70,000/-
Accrued Interest on NSC VIII issue	30,000/-
Deposited in PPF	1,00,000/-
Paid Life Insurance Premium	60,000/-

Exam Code: 108505
(40)

Paper Code: 5194

Programme: Bachelor of Commerce
Semester-V

Course Title: Auditing

Course Code: BCRL-5095 ✓

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 8 marks.

SECTION-A

1. What is the importance of Audit? Also explain in detail the various kinds of errors that an auditor may come across while auditing the accounts. (4,4)
2. What is audit planning? What are the qualities of a good auditor? (4,4)

SECTION-B

3. What do you mean by Internal Control? Discuss the purpose and features of Internal Control. (2,3,3)
4. What are the fundamental principles of Internal Check?

What is the Internal Check System in accounting for the following:

(i) Cash Receipts

(ii) Wages

(iii) Purchases.

(2,2,2,2)

SECTION-C

5. Explain the objectives and importance of vouching. What points should an auditor keep in mind while vouching? (3,3,2)
6. a) What is Audit Procedure? Discuss the various types of audit procedures.
b) What is the procedure for vouching of Cash Book of a Company? (2,3,3)

SECTION -D

7. "An auditor is a Watchdog not a Bloodhound". Justify the statement and discuss the duties and liabilities of an auditor. (3,5)
8. Discuss in detail about the Recent Trends in Auditing. (8)

Exam Code: 108505
(40)

Paper Code: 5195

Programme: Bachelor of Commerce
Semester-V

Course Title: Banking Services Management

Course Code: BCRL-5096 (Opt-B I) ✓

Time Allowed: 3 Hours

Max Marks: 40

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 8 marks.

Section-A

1. Define banking services. Discuss the economic and monetary implications of banking operations.
2. Explain in detail the tangible services and intangible services provided by financial institutions.

Section-B

3. State the different forms of advances which the commercial banks may make to their customers.

4. Write short notes on the followings:

- A. Packing credits
- B. Import loan
- C. Industrial advances
- D. Advances to small borrowers
- E. Agricultural financing

Section-C

- 5. Define the terms 'Banker' and 'Customer'. What are the general and special relationships between banker and customer?
- 6. What is an endorsement? Discuss legal provisions regarding endorsements. Explain and illustrate the different kinds of endorsements.

Section-D

- 7. Discuss in detail various reforms in banking sector.
- 8. Write notes on the followings:
 - A. Internet Banking
 - B. Phone banking
 - C. Mobile banking
 - D. Capital adequacy

Exam Code: 108505
(40)

Paper Code: 5196

Programme: Bachelor of Commerce
Semester-V

Course Title: Insurance Services Management

Course Code: BCRL-5097 (Opt-B II) ✓

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 8 marks.

Section-A

1. Write note on the following:
 - a) Contents of life insurance form?
 - b) Explain the term Endorsement?

8 Marks
2. What is life insurers management and how insurance documentation is performed?

8 Marks

Section-B

3. Explain Insurance Agents? Describe various functions performed by insurance agents?

8 Marks
4. Discuss the role of insurance intermediaries in emerging markets?

8 Marks

Section-C

5. Explain the following:
 - a) Role of surveyor?
 - b) What is Premium rate structure? 8 Marks
6. Define the term underwriting? Discuss various principles in underwriting? 8 Marks

Section-D

7. Explain these terms:
 - a) Cost Consciousness?
 - b) Price behaviour in deregulated market? 8 Marks
8. What is the impact of legislation and composition on pricing of insurance products? 8 Marks

Paper Code: 5162

Programme	Exam Code	Course Code
Bachelor of Science (Non-Medical)	103305	BSNM-5395 (I)
Bachelor of Science (Computer Science)	103305	BCSM-5395 (I)

Semester-V

Course Title: Physics (Condensed Matter Physics)
(30)

Time Allowed: 3 Hours

Max Marks: 30

- a. 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 6 marks.
- b. Students can use Non-Scientific calculators or logarithmic tables.

Section A

1. Explain the crystal structure of sodium chloride and diamond. Calculate the packing fraction for diamond and show that it has comparatively loose packing.
- (6)

2. (a) Why reciprocals of intercepts of the plane are taken to find Miller indices? (3)
(b) Show that $[hkl]$ direction is normal to the plane (hkl) plane in a cubic crystal. (3)

Section B

3. Define the geometrical structure factor. How is it related to the atomic scattering factor? Write the structure factor for bcc crystal and account for missing (100) reflection. (6)
4. What is the reciprocal lattice? What is the advantage of using reciprocal lattice over the direct space lattice in the crystal structure analysis? Derive the expression for the primitive translation vectors of the reciprocal lattice. (6)

Section C

5. Obtain the expression for dispersion relation in case of mono-atomic linear chain of atoms. (6)
6. Discuss Einstein's theory of lattice heat capacity and explain why it is not capable of correct behaviour at low temperature. (6)

Section D

7. Explain the need of doping a pure semiconductor. Derive the expression for density of electrons in the conduction band for n type semiconductors. (6)
8. Discuss the formation of allowed and forbidden energy bands on the basis of the Kronig- Penny model. Discuss the extreme conditions when energy levels are either discrete or continuous. (6)

Paper Code: 5163

Programme	Exam Code	Course Code
Bachelor of Science (Non-Medical)	103305	BSNM-5395 (II)
Bachelor of Science (Computer Science)	103305	BCSM-5395 (II)

Semester-V

Course Title: Physics (Electronics)
(30)

Time Allowed: 3 Hours

Max Marks: 30

NOTE:- Attempt five questions selecting at least one question from each section. Fifth question can be attempted from any section. Each question of 6 marks. Use of log table and calculator is allowed.

SECTION-A

1. Draw labelled I-V characteristics of a p-n diode and derive diode equation expressing I-V relationship. 6
2. Explain the use of p-n junction as full wave bridge rectifier. What is its ripple factor, efficiency, and peak inverse voltage? Why PIV of a diode should be less than breakdown voltage? 6

SECTION -B

3. (a) Draw the circuit diagram and explain the input and output characteristics of a transistor in CB mode? What is early effect? 4
(b) What is the accurate expression for collector current in a transistor. A transistor has $\alpha = 0.96$, leakage current $1.2 \mu\text{A}$ and collector current 0.932 mA . Find the emitter and base current in transistor. 2
4. Explain the working of n-channel FET with output and mutual characteristics. What are its parameters? 6

SECTION -C

5. What are h-parameters? Why are they so called? What are their advantages. Find their expressions for a CE transistor with equivalent circuit. 6
6. Describe the working and analysis of an emitter follower. What are its applications? 6

SECTION -D

7. (a) Why a tank circuit once excited does not produce sustained oscillations? State and prove Barkhausen criterion for sustained oscillations. 3

(b) A phase shift oscillator consist of three identical RC sections in the feedback network. If in each section R is $200\text{k}\Omega$, $C=0.01\mu\text{F}$, calculate the frequency of oscillations. Why three RC sections are used?

3

8. Draw the circuit diagram of a Phase shift R-C oscillator. Derive the condition for sustained oscillations. What is the frequency of oscillations?

6

Exam Code: 108205
(20)

Paper Code: 5172

Programme: Bachelor of Science (Home Science)
Semester-V

Course Title: Basic Nutritional Biochemistry

Course Code: BHSL- 5063

Time Allowed: 3 Hours

Max Marks: 40

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 8 marks.

Section A

1. (a) Write the biological roles of carbohydrates. (4)
(b) Differentiate between glycogen and starch. (4)
2. (a) What are the hetero-polysaccharides? Write the various functions of hetero-polysaccharides. (4)
(b) Write a short note on peptidoglycan. (4)

Section B

3. (a) Write the only overview of glycolysis pathway. (4)
(b) What is TCA cycle? Prove that TCA cycle is amphibolic pathway (4)

4. (a) Write the various roles of triglycerides in human. (4)
(b) What is the Rancidity? Write the various measures to prevent rancidity of fat sample. (4)

Section C

5. (a) Write the general characteristics of essential fatty acids. (4)
(b) Write a short note on Acid value of fat. (4)
6. (a) What is fat oxidation? Write the significance of fat oxidation. (4)
(b) Write the general mechanisms of fat acid biosynthesis. (4)

Section D

7. (a) Write the biological roles of calcium in biological system. (4)
(b) Write the various biological functions of magnesium. (4)
8. (a) Write the dietary sources of iron for humans. (4)
(b) Write a short note on phosphorus. (4)

Exam Code: 108205
(20)

Paper Code: 5170

Programme: Bachelor of Science (Home Science)
Semester-V

Course Title: Child Psychology

Course Code: BHSL-5281 ✓

Time Allowed: 3 Hours

Max Marks: 40

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

1. Discuss the nature and scope of Psychology. 8
2. What are the factors which affect memory of a person and how improvement can be made? 8

Section-B

3. Define meaning: of learning. Discuss nature and types of Learning. 8
4. What is the significance of Sensory-Motor Stage in Piaget's theory? List the achievement of the child at the end of this stage. 8

Section-C

- | | |
|---|---|
| 5. Describe Classical Conditioning in detail. | 8 |
| 6. Discuss Ecological" theory. | 8 |

Section-D

- | | |
|---|---|
| 7. What is Moral development? What are the stages of Moral Development? | 8 |
| 8. Throw light on Allport's theory. | 8 |

Exam Code: 108205
(20)

Paper Code: 5171

Programme: Bachelor of Science (Home Science)
Semester-V

**Course Title: Introduction to Extension Education and
Community Development**

Course Code: BHSL-5282 ✓

Time Allowed: 3 Hours

Max Marks: 40

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 8 marks.

Section A

1. Explain education and its types in detail. Give the difference between formal & non-formal extension education?
2. What are the concepts of Extension Education? Also explain its principles in detail?

Section B

3. Write notes on the following:
 - a) Role of extension worker in extension education

- b) Qualities of extension worker
- 4. Explain in detail the fields covered under extension education?

Section C

- 5. a) Which basic elements should be needed to know to motivate the villagers?
b) How we can motivate the extension workers. Explain with the help of model of motivation?
- 6. What are the objectives and principles of Community Development?

Section D

- 7. Explain Panchayati Raj system, its organization and functions?
- 8. What is the role of Voluntary Organization in Community Development?

Exam Code: 108205
(20)

Paper Code: 5176

Programme: Bachelor of Science (Home Science) .
Semester-V .

Course Title: Applied Botany and Home Gardening .

Course Code: BHSM-5077 ✓

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 equal (10) marks.

SECTION- A

1. Explain the different ways to layout a garden. 10
2. Illustrate various steps followed by a gardener for preparing soil. 10

SECTION-B

3. Discuss briefly seed propagation. 10
4. Discuss natural and artificial methods of vegetative propagation. 10

SECTION-C

5. Give principle of planning, and cultivation of potato and tomato. 10
6. Write note on cultivation practices of any two- Radish, cauliflower, pea, brinjal. (5+5)

SECTION-D

7. Describe cure and cultivation of seasonal and common indoor plants. 10
8. Give general characteristics, morphology and economic importance of Algae. 10

40

9/12/24 (EVE) KMV-II

Exam Code: 108205

Paper Code: 5173

Programme: Bachelor of Science (Home Science)

Semester V

Course Title: Interior Space Designing

Course Code: BHSM-5284 ✓

Time Allowed: 03 Hours

Max. Marks: 60

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 12 marks.

Section A

1. What is furniture? Discuss the objectives of home furnishing in detail.
2. Which factors should be considered during designing interiors of a house?

Section B

3. Explain about the factors to be considered while selecting furniture for a house.
4. How the furniture should be arranged in the following rooms:
 - a. Dining room
 - b. Drawing room
 - c. Bedroom
 - d. Kitchen

Section C

5. Which factors should be kept in mind while planning color schemes for:
 - a. Master bedroom
 - b. Adolescent boy
 - c. Adolescent girl
 - d. Kitchen
6. Briefly explain the application of color wheel in interior designing.

Section D

7. Write about the hard and resilient floor material in detail.
8. Discuss about the soft floor material and their suitability.

Exam Code: 108205
(20)

Paper Code: 5174

Programme: Bachelor of Science (Home Science)
Semester-V

Course Title: Therapeutic Nutrition

Course Code: BHSM-5285 ✓

Time Allowed: 3 Hours

Max Marks: 60

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 12 marks.

Section-A

1. Discuss the role of Dietician in feeding the patients. What is the effect of illness on food acceptance and acceptance and utilization?.
2. Discuss various Nutrient and Drug interactions.

Section-B

3. Explain the etiology, symptoms and dietary management in peptic ulcer.
4. Explain the etiology, symptoms and dietary management in hepatitis.

Section-C

5. What is Diabetes Mellitus? Discuss their various causes and dietary management.
6. Explain in detail the etiology and dietary management in atherosclerosis.

Section-D

7. What are the various stages of cancer? Discuss the symptoms, etiology and dietary management in cancer.
8. Explain various causes and nutrition management for obesity?

Exam Code: 108205
(20)

Paper Code: 5175

Programme: Bachelor of Science (Home Science)
Semester-V

Course Title: Basic Concepts of Sewing and Fashion

Course Code: BHSM-5286 ✓

Time Allowed: 3 Hours

Max Marks: 60

Note: Students are required to attempt five questions, selecting at least one question from each section. The fifth question can be attempted from any Section. Each question carries (12) marks.

Section A

1. Classify sewing equipments. Explain marking and cutting equipments in detail. 12
2. What are the causes and remedies of stitching defects in a sewing machine. 12

Section B

3. Explain in detail how the fullness in dress can be achieved. 12
4. Write in detail different types of hand stitches and their types. 12

Section C

5. Define the following giving examples:
- a) Boutique
 - b) Fashion
 - c) Silhouette
 - d) Classic Fashion 12
6. Write in detail about different types of plackets. How can they be used in different apparels? 12

Section D

7. Which factors favour fashion cycle? Explain giving examples. 12
8. Write short notes on the following:
- a) Fashion Forecasting
 - b) Fashion Merchandising 12

Exam Code: 105705
(20)

Paper Code: 5207

Programme: Bachelor of Science (Information Technology)
Semester-V

Course Title: Computer Networks

Course Code: BITL-5111 ✓

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. All question carries equal 16 marks.

Section A

1. What do you mean by Computer Networks? What is guided and unguided media? Explain the Coaxial Cable.
(10)
(b) Discuss different types of networks.
(6)
2. Explain TCP/IP Model and Compare TCP/IP with OSI Model.
(16)

Section B

3. (a) What are Analog and Digital signals? Explain how to convert Analog signals to Digital signals using the PCM technique. (8)
(b) Explain Packet switching. (8)
4. What are Error Detection and Correction? How to Detect single-bit data Error in Networks. (16)

Section C

5. How Token Ring works.
(b) Explain The Dijkstra Algorithm. (2x8)
6. Differentiate IPV4 and IPV6 and explain in detail the header format of IPV6 (16)

Section D

7. What is Cryptography? Explain different Keys used in cryptography. (16)
8. What are the various services provided by UDP? How User Datagram Protocol works to send the data? (16)

Exam Code: 105705
(20)

Paper Code: 5208

Programme: Bachelor of Science
(Information Technology)
Semester-V

Course Title: Web Technologies

Course Code: BITL-5112

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 equal marks (16).

Section A

1. (a) What is JavaScript? Explain how JavaScript Objects are created?
(b) Explain Control Statements in JavaScript (2x8)
2. (a) What is BOM? How it is different from DOM?
(b) Explain Window Screen and Navigation in BOM. (2x8)

Section B

3. Explain the following: -
a) Form Handling
b) Inheritance (2x8)

4. (a) How to upload a file in PHP?
(b) How My SQL Database is accessed in PHP?

(2x8)

Section C

5. (a) Explain Basic Structure OF XML with example.
(b) Explain Parsing in XML.
6. (a) Explain REST in detail.
(b) How responses are fetched from Server in AJAX.

(2x8)

Section D

7. (a) Explain MVC Framework.
(b) Explain Blade Templating in detail with example
8. Explain Form Handling and discuss how Validation is done in Laravel.

(2x8)

(16)

Exam Code: 105705

Paper Code: 5209

**Programme: Bachelor of Science (Information
Technology) Semester-V**

Course Title: Operating System

Course Code: BITL-5113 ✓

Time Allowed: 3 Hours

Max Marks: 80

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

SECTION-A

1. Define the terms in detail: Multiprocessing, Multiprogramming, Multitasking, Time Sharing.
2. Define the terms in detail: Distributed system, Real time system, Threads, system calls.

SECTION-B

3. What is CPU scheduling? Explain any two algorithms of cpu scheduling in detail with examples.
4. What do you mean by critical section Problem? Which algorithm is best to avoid jumping of processes in critical section? Explain any one in detail.

SECTION-C

5. Explain in detail
(a) Dead lock Prevention (b) Dead lock avoidance
6. Differentiate between Paging and Segmentation in detail? Explain with diagrams.

SECTION-D

7. What do you mean by page fault? Also explain demand paging in detail.
8. Explain
(a) Thrashing (b) Disk Scheduling

Exam Code: 108705
(20)

Paper Code: 5141

**Programme: Bachelor of Arts (Journalism & Mass
Communications) Semester-V**

Course Title: Event Management: Principles and Methods

Course Code: BJML-5311 ✓

Time Allowed: 3 Hours

Max Marks: 60

NOTE: Attempt five questions in all, selecting atleast one question from each Section. The fifth question can be attempted from any Section. Each question carry equal 12 marks.

SECTION — I

1. Discuss the importance of budget and buffer in Event Management.
2. Discuss the scope of event management. Write various arrangements to organize a kids fashion show.

SECTION — II

3. Explain the advantages of exhibition in the era of social media.
4. Explain the role and importance of exhibition.

SECTION — III

5. Explain role of press in promotion of an event.
6. Which publicity inputs can you use to launch new company.

SECTION — IV

7. Explain Uses and Abuses of trade fair.
8. Write a note on outdoor media.

Exam Code: 108705

Paper Code: 5142

**Programme: Bachelor of Arts (Journalism &
Mass Communication) Semester - V**

**Course Title: Current Affairs: Contemporary Issue in
Media- I**

Course Code: BJML- 5312 ✓

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 twelve marks.

Section A

1. What are your views on current Government of Punjab?
2. Analyse the current economic situation of India.

Section B

3. Write a detailed note on the current education scenario of India?
4. Describe in detail India's position in the world politics.

Section C

5. Write a detailed note on G-20 and its significance in today's world?
6. Explain in detail the role and functions of UNESCO.

Section D

7. What role does FICCI play in Indian industry sector?
8. Write short notes on:

i RBI

ii CVC

Exam Code: 108705
(20)

Paper Code: 5143

**Programme: Bachelor of Arts (Journalism & Mass
Communications) Semester-V**

Course Title: Media Research Methodologies

Course Code: BJML-5313

Time Allowed: 3 Hours

Max Marks: 60

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 12 Marks

SECTION — A

1. What is Sampling? Explain different types of sampling methods.
2. Explanation different types of Research Methods?

SECTION — B

3. What is the primary purpose of conducting a readership survey in the field of mass communication? Explain with 2 relevant examples.

4. Explain the method of a public opinion survey and provide an example of when it might be used in mass communication research.

SECTION — C

5. Explain the significance and challenges of using Secondary data in media research.
6. What are the different tools for data collection in Media research?

SECTION — D

7. What are TRPs and how are they used to evaluate the popularity of TV programs?
8. What are the key steps involved in statistical analysis and interpretation of data in media research?

Exam Code: 108705

Paper Code: 5144

**Programme: Bachelor of Arts (Journalism and Mass
Communication) Semester: V**

Course Title: Social Media

Course Code: BJML-5314 ✓

Time Allowed: 3 Hours

Max Marks: 60

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 12 marks.

Section-A

1. Explain the concept and scope of social media.
2. Discuss the challenges of social media for a developing country like India.

Section-B

3. Explain any two social media platforms.
4. Discuss the impact of social media over main stream media.

Section-C

5. What are the uses and abuses of social media?
6. Explain how the social media advertising is progressing?

Section-D

7. Discuss the role of citizen journalism in social media.
8. Does social media play a role for breaking news.

Exam Code: 108705
(20)

Paper Code: 5145

**Programme: Bachelor of Arts (Journalism & Mass
Communications) Semester-V**

Course Title: Public Relations

Course Code: BJML-5315 ✓

Time Allowed: 3 Hours

Max Marks: 60

Attempt 5 questions in all selecting atleast one from each section. The fifth question can be attempted from any section. Each question carries equal 12 marks.

Section-A

1. Differentiate between PR, Sales Promotion, advertising and Marketing in detail. 12
2. What is the concept of PR? Explain its functions. 12

Section-B

3. 'PR needs a systematic approach'. Explain 12
4. Explain the functions of PR Consultancy. Also explain its advantages and disadvantages. 12

Section- C

5. Explain the importance of maintaining employee relations for growth of an organisation. 12
6. Write various steps/preparation to organise Press Event for launch of a product. 12

Section-D

7. Explain the importance of marketing research for a PR Practitioner. 12
8. What is exhibition PR? Explain its importance and uses. 12

Exam Code: 107505

Paper Code: 5146

Programme: Bachelor of Arts (Honours) English Semester-V

Course Title: Modern English Poetry

Course Code: BOEL-5211

Time Allowed: 3 Hours

Max. Marks: 40

Section-A

Note: Attempt any four questions in 100 words approximately. Each question carries 4 marks.

1. "Ceremony's a name for the rich horn,
Custom for the spreading laurel tree."

Explain the above statement with reference to the poem "A Prayer for my Daughter".

Or

What do the 'wild swans' symbolise in the poem "The Wild Swans at Coole"? In the poem, what do 'sore heart' and 'light tread' refer to?

2. What is the selfless action mentioned in "To the Indians who Died in Africa".

Or

"The Love Song of Alfred J. Prufrock" takes its epigraph from Dante's *Divine Comedy*. Comment.

3. The poem "Lay your Sleeping Head" by Auden explores the nature of love and calls it imperfect and impermanent. Explain.

Or

What is the theme of the poem "As I Walked Out One Evening" by W.H. Auden?

4. Give a detailed description of one of the following:

a. Myth

b. Irony

(4×4=16)

Section-B

Note: Attempt any one question in 600 words approximately.

5. How does the poet show the relationship between labour and beauty in "Adam's Curse"?

Or

"Was there another Troy to burn?" With reference to the above statement, summarise the poem "No Second Troy". (1×8=8)

Section-C

Note: Attempt any one questions in 600 words approximately.

6. What is the irony in the title of the poem "The Love Song of Alfred J. Prufrock"? How does the poem differ from a love song?

Or

How does the poem "Journey of the Magi" use references from The Bible in its narration? Explain. (1×8=8)

Section-D

Note: Attempt any one questions in 600 words approximately.

7. "The Shield of Achilles" is a sad but true depiction of modern society and all the maladies that affect humanity". Discuss.

Or

Discuss "In Memory of W.B. Yeats" as an elegy. (1×8=8)

Exam Code: 107505

Paper Code: 5147

Programme: Bachelor of Arts (Honours) English

Semester - V

Course Title: Modern English Drama

Course Code: BOEL-5212 ✓

Time Allowed: 3 Hours

Maximum Marks: 40

Section A

Note: Attempt any 4 questions out of the following in about 100 words. Each question carries 4 marks.

Question. 1

(4x4=16)

- a) Why does Raina call Bluntschli 'chocolate cream soldier'?
- b) How do you assess Major Paul Petkoff's character?
- c) Attempt a character sketch of Mary Boyle.
- d) What do you know about Julia?
- e) Why does Peter want Edward to talk to Celia?
- f) Define Tragicomedy.

Note: Attempt any one question out of the following sections each in about 600 words. Each question carries 8 marks.

Section B

Question. 2 Critically analyse Shaw's *Arms and the Man* as a problem play.

or

Question. 3 Discuss the role of servants in *Arms and the Man*. (8)

Section C

Question. 4 Comment upon the life of Boyle family members as a depiction of socio-political conditions of early 20th century Ireland.

or

Question. 5 Justify *Juno and the Paycock* as a feministic play. (8)

Section D

Question. 6 How does *The Cocktail Party* expose the isolation of human condition using absurdist elements? (8)

or

Question. 7 How does T.S. Eliot make use of symbolism in *The Cocktail Party*? (8)

Exam Code: 107505

Paper Code: 5148

**Programme: Bachelor of Arts (Honours) English
(Semester – V)**

Course Title: Modern Novel

Course Code: BOEL-5213 ✓

Time Allowed: 3 Hours

Total Marks: 40

Section A

**I. Answer the following questions in about 100 words each.
Each question carries 4 marks. (4x4=16)**

- a) What is Scout's main lesson learned in To Kill a Mockingbird?

OR

How does Scout feel about school in To Kill a Mockingbird?

- b) How does Aldous Huxley use the character of Lenina to show problems in society in Brave New World?

OR

How does Brave New World show the importance of friendship?

- c) Explore the theme of female empowerment in The Color Purple.

OR

How does Alice Walker portray male characters in The Color Purple?

- d) What does 'Point of View' refer to in literature?

OR

Define 'Hyperbole' and give an example.

NOTE: Attempt a total of three questions, selecting one question from Sections B, C, and D in about 600 words each. Each question carries 8 marks. (3x8=24)

Section B

II. Analyze the parenting style of Atticus Finch and its effects on Scout and Jem in *To Kill a Mockingbird*.

OR

III. How do the characters in *To Kill a Mockingbird* show bravery?

Section C

IV. Explain the role of the caste system in the society depicted in *Brave New World*.

OR

V. Analyze the significance of the character John the Savage in *Brave New World*.

Section D

VI. How do letters help tell the story in *The Color Purple*?

OR

VII. How does the book *The Color Purple* discuss racism and sexism?

Section-A

I. Answer the following questions in about 100 words each. Each question carries 4 marks. (4x4=16)

1. According to Sidney a poet is a 'Prophet and a Maker'. Discuss.

Or

What was the purpose of writing "An Apology for Poetry"?

2. Discuss the relationship between form and content in Dryden's Of Dramatic Poesie.

Or

Dryden's Essay of Dramatic Poesy develops through dialogues amongst which four interlocutors?

3. What is Matthew Arnold's touchstone method of criticism?

Or

According to Matthew Arnold, what is the goal of 'The Study of Poetry'?

4. What is the difference between Fiction and Truth?

Or

Discuss Dissociation of Sensibility.

Note: Attempt any one question out of each of the following sections each in about 600 words. Each question carries 8 marks.

Section-B

II. What are the points of discussion in Sidney's Essay? (8)

Or

III. How does "An Apology for Poetry" relate to Aristotle and Plato's views? (8)

Section-C

IV. How does Dryden compare English and French drama in "Of Dramatic Poesie"? (8)

Or

V. Discuss Dryden's Of Dramatic Poesie as a survey of contemporary critical schools. (8)

Section-D

VI. What does Arnold mean by "poetry is the criticism of life"? (8)

Or

VII. Discuss Arnold's use of language, structure, and rhyme in his poetry. (8)

Exam Code: 107505

Paper Code: 5150

Programme: Bachelor of Arts (Honours) English

(Semester - V)

Course Title: Elements of Prose and Composition

Course Code: BOEL-5215

Examination Time: 3 Hours

Theory: 40

SECTION A

Note: Attempt all questions in 100 words approximately. Each question carries 4 marks.

Ques1. Write a brief note on what a paragraph is. What are inductive and deductive natures of paragraphs?

OR

Write a note of A) denotation and connotation B) abstract and concrete words.

Ques 2. Justify Spider and the Wasp, by Alexander Petrunkevitch as a descriptive essay.

OR

What is the significance of the setting of the essay Shooting an Elephant, by George Orwell.

Ques 3. What are the three newspapers that are compared in essay Must a Great Newspaper be Dull by Walker Gibson.

OR

What are the causes and effects of divorce discussed by Mervyn Cadwallader in Marriage as a Wretched Institution.

Ques4. Define the following literary terms: Cliches , Slang

OR

Define the following literary terms: Colloquialism Jargon

Note: Attempt one question from each of the following sections (B, C and D) in 600 words approximately. Each question carries 8 marks

SECTION B

Ques 5. Write a note on outlining of an essay, hierarchical distribution of ideas and the various pattern of paragraph development.

OR

Write a note on the detailed characteristics of effective writing

SECTION C

Ques 6. What is Argumentative form of discourse discuss with reference to the essay prescribed?

OR

What is Descriptive discourse discuss with reference to the narrative essays prescribed.

SECTION D

Ques 7. Discuss Classification as a mode of development of a write up with reference to the essays prescribed.

OR

Discuss Definition as a mode of development with reference to the essays prescribed.

Exam Code: 107505
(20)

Paper Code: 5151

Programme: Bachelor of Arts (Honours) English
Semester-V

Course Title: History of English Language-I

Course Code: BOEL-5216 ✓

Time Allowed: 3 Hours

Max Marks: 40

Section A

Answer the following questions in about 100 words each.
Each question carries 4 marks. (4*4=16)

1. a. Write a short note on origin and position of English.
b. Write a short note on Latin influence of Zero period on Old English.
2. a. Write a short note on Old English Grammatical Gender.
b. Write a short note on Celtic place names.
3. a. Discuss the changing conditions after 1200.
b. What is the importance of the year 1066?
4. a. Write a short note on Scandinavian place names.
b. Write a short note on Latin influence of the second period on Old English.

Section B

Answer any 1 question in about 600 words. Each question carries 8 marks. (1*8=8)

5. Discuss how English benefitted from contact with other languages.
6. Explain the resourcefulness of Old English vocabulary.

Section C

Answer any 1 question in about 600 words Each question carries 8 marks. (1*8=8)

7. Write a note on the Latin influence of the 1st period.
8. Write a note on Scandinavian place names.

Section D

Answer any 1 question in about 600 words. Each question carries 8 marks. (1*8=8)

9. Write a note on the general adoption of English in the 14th century.
10. What do you know about Middle English literature?

Lib 23/12/24 (M) KM^{re II}

Exam Code: 107505
(20)

Paper Code: 5152

Programme: Bachelor of Arts (Honours) English
Semester-V

Course Title: History of England (1914-1939)

Course Code: BOEL-5277 ✓

Time Allowed: 3 Hours

Max Marks: 40

Note : Attempt all the sections A,B,C,D according to the given

instructions.

SECTION -A

I. Attempt four questions choosing one question from each unit in 100 words each, each question carries 4 marks.

1. Who ruled the British Empire on the eve of the Great war.
2. What were the goals of Britain for the Paris Peace Settlement?
3. Define the word waste land.
4. When did the early phase of Great Depression began in England. ?

5. What was the immediate impact of economic crisis on the life of common people.
6. What were the recovery efforts of England?

4x4=16

SECTION -B

Attempt one question in 600 Words.

- II. Describe the role of Britain in the Great War.
- III. What were the motives of Britain during the Paris Peace Settlement?

1x8=8

SECTION-C

Attempt one question in 600 words.

- IV. What were the main features of waste land?
- V. Describe the causes of the early phase of Great Depression.

1x8= 8

SECTION-D

Attempt one question in 600 words.

- VI. Describe the impact of economic crisis on the industries of Great Britain.
- VII. Describe the impact of recovery efforts on the economy of Great Britain.

1x8 = 8

Exam Code: 107505
(20)

Paper Code: 5153

Programme: Bachelor of Arts (Honours) English
Semester-V

Course Title: Social Thought-A

Course Code: BOEL-5478 ✓

Time Allowed: 3 Hours

Max Marks: 40

Note:- (i) There are four sections- A,B,C and D. In section A, attempt four questions in 100 words. Each question carries 4 marks.

(ii) In section B,C and D attempt are question from each in 600 words. Each question carries 8 marks.

Section-A

1. (i) Briefly explain the life sketch of Auguste Comte?
(ii) What do you understand by Postivism?
(iii) Explain the meaning and concept of social Darwinism?
(iv) Differentiate between Human society and Animal Society?
(v) Write about the concept of Historical Materialism?
(vi) Explain class consciousness?

(4*4=16)

Section-B

2. What do you mean by the concept of Positive Philosophy? (8)
3. Write note on Law of three stages? (8)

Section-C

4. Explain in detail Herbert Spencer's theory? (8)
5. How Darwin explain the concept of Society? (8)

Section-D

6. Critically examine the Karl Marx's concept of Historical Materialism? (8)
7. Write a detailed note on class struggle? (8)

Exam Code: 112415
(30)

Paper Code: 5177

Programme: Bachelor of Science (Honours) Mathematics Semester-V

Course Title: Number Theory

Course Code: BOML-5331 ✓

Time Allowed: 3 Hours

Max Marks: 80

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 16 marks.

SECTION-A

- 1(a) Determine all solutions in positive integers of Diophantine of equation $18x + 5y = 48$. 8
(b) Show that $3^{287} - 3$ is divisible by 23. 8
- 2(a) Prove that an integer is divisible by 4 if and only if the number formed by its ten units is divisible by 4. 8
(b) Define a *Reduced Residue System (RRS) modulo m*. Form a RRS modulo 12. 8

SECTION-B

3. State and prove Chinese Remainder Theorem for a set of simultaneous linear congruences. 16
- 4(a) If $\gcd(a, 133) = \gcd(b, 133) = 1$, then using Fermat's theorem prove that $a^{18} \equiv b^{18} \pmod{133}$ 8
(b) Solve linear congruence $13x \equiv 3 \pmod{47}$. 8

SECTION-C

5. State and prove Wilson's Theorem. 16
- 6(a) Find a positive integer k such that $\phi(2k) = \phi(k)$. 8
(b) Show that $a^{560} \equiv 1 \pmod{560}$ if $\gcd(a, 561) = 1$, however 561 is not a prime. 8

SECTION-D

- 7(a) State Mobius Inversion Formula. Verify this formula for a positive integer 24. 10
(b) Prove that the sum of divisors function $\sigma(n)$ is a multiplicative function. 6
- 8(a) Find the highest power of 3 dividing 533 . 8
(b) Show that $\prod_{d|n} d = n^{\frac{\tau(n)}{2}}$, where $\tau(n)$ denotes the number of positive divisors of n . 8

Exam Code: 112415
(30)

Paper Code: 5178

Programme: Bachelor of Science (Honours) Mathematics Semester-V

Course Title: Discrete Mathematics

Course Code: BOML-5332

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 16 marks.

Section-A

Q.1 State and prove the following laws in a Boolean algebra

(i) Idempotent Law (ii) Boundedness Law (iii) Absorption Law (iv) Involution law (16)

Q.2 (a) Use Karnaugh map to find the minimal sum for

$$f(x, y, z, t) = xy' + xyz + x'y'z' + x'yzt'$$

(b) Consider the Boolean Function $f(x, y, z) = (xy + z)(x' + yz')(x' + z)$. solve it algebraically and hence draw its circuit diagram.

(c) Check whether the expressions are equal or not?

$$ab + a'b' = (a' + b)(a + b')$$

(d) Simplify the Boolean expression $f(x, y, z) = x'z + yz + yz'$ and write the minterm normal form.

(4,4,4,4)

Section-B

Q.3 (a) Give an example of 3-regular graph. Draw its Complement and prove that it is also regular.

(b) Prove that the minimum no. of edges in a connected graph with n vertices is $n-1$.

(c) Draw the graph with following adjacency matrix

$$\begin{bmatrix} 0 & 1 & 2 & 3 \\ 1 & 0 & 2 & 3 \\ 2 & 3 & 0 & 1 \\ 3 & 2 & 1 & 0 \end{bmatrix}$$

(4,8,4)

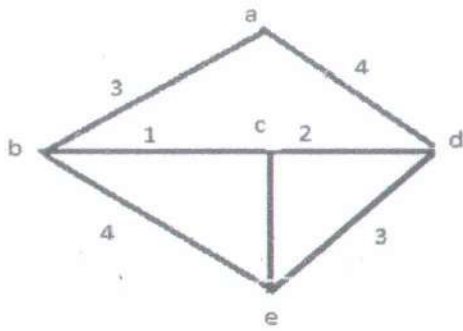
Q.4 (a) Prove that in a connected planar graph G with V vertices, E edges and R regions then $V-E+R=2$

(b) State and prove the Euler Theorem. (8,8)

Section-C

Q.5 (a) Prove that a planar graph G is five colourable.

(b) Using Kruskal's algorithm, Find Minimal spanning tree for the following graph:



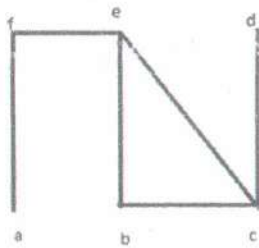
(8,8)

Q.6 (a) Represent the expression as a binary tree and write the prefix and post fix forms of the expression

$$((A * B) - (C \uparrow D)) + (E / F)$$

(b) Prove that A graph is a tree iff it is minimally connected

(c) Find all Spanning trees of the graph shown in the following figure:



(5,6,5)

Section-D

Q.7 (a) What are the Quantifiers ? Explain the types of quantifiers with the help of examples .

(b) Assume the value of $p \rightarrow q$ is false . Determine the value of $(\sim p \vee \sim q) \rightarrow q$ (10,6)

Q.8 (a) Using truth table Check whether $p \leftrightarrow \sim q$ logically imply $p \rightarrow q$ or not ?

(b) Check the validity of the argument

If I study , then I will pass examination. If I do not go to picnic , then I will study. But I failed examination. Therefore, I went to picnic.

(8,8)

Exam Code: 112415
(30)

Paper Code: 5179

Programme: Bachelor of Science (Honours) Mathematics Semester-V

Course Title: Linear Integral Equations

Course Code: BOML-5333

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(a) Solve $y(x) = x + \int_0^x (t-x)y(t) dt$ with the help of resolvent kernel.

(b) What are the different kinds of Kernel. Explain each with the help of an example.

[8,8]

2(a) Define Volterra Integral Equation of second kind. Convert an initial value problem

$y'' - 3y' + 2y = 4 \sin x$ with initial conditions $y(0) = 1, y'(0) = -2$ to a Volterra Integral equation of the second kind.

(b) Solve using the method of successive approximations by taking $\phi_0(x) = 1$

$$\phi(x) = 1 + x - \int_0^x \phi(t) dt$$

[8,8]

Section-B

3(a) Determine the resolvent kernel of the Fredholm integral equation with the kernel:

$$K(x, t) = (1+x)(1-t); a = -1, b = 1$$

(b) Solve the integral equation: $g(s) = (2s - \pi) + 4 \int_0^{\pi/2} \sin^2 s g(t) dt$

[8,8]

4 (a) Solve: $y(s) = f(s) + \lambda \int_0^1 e^{s-t} y(t) dt$

(b) Determine the eigen values and eigen functions of the homogeneous integral equation:

$$\phi(x) = \lambda \int_0^1 (2x\xi - 4x^2) \phi(\xi) d\xi$$

[8,8]

Section-C

5(a) What is an Integro-differential equation. Solve the Integral equation:

$$\phi'(x) = x + \int_0^x \cos t \phi(x-t) dt, \phi(0) = 4$$

(b) Solve the integral equation:

$$\phi(t) = \int_0^t K(t^2 - x^2) \phi(x) dx, x > 0 \quad [8,8]$$

6(a) Solve the Abel's integral equation: $f(x) = \int_0^x \frac{\phi(\xi)}{(x-\xi)^\alpha} d\xi$ where $0 < \alpha < 1$

(b) Define Integral equation of convolution type. Solve:

$$y(x) = x^2 + \int_0^x \sin(x-\xi)y(\xi)d\xi \quad [8,8]$$

Section-D

7(a) Construct Green's function for the equation $\frac{d^2y}{dx^2} + \mu^2 y = 0$ with the conditions

$$y(0) = y(1) = 0$$

(b) Transform the problem $\frac{d^2y}{dx^2} + y = x, y(0) = 1, y'(1) = 0$ to an integral equation.

[8,8]

8(a) Determine the Green's function $G(x, \xi)$ for the differential equation

$$\left[\frac{d}{dx} \left(x \frac{d}{dx} \right) - \frac{n^2}{x} \right] u = 0 \text{ with the conditions } u(0) = 0, u(1) = 0$$

(b) Solve the boundary value problem using Green's function

$$\frac{d^4y}{dx^4} = 1, y(0) = y'(0) = y''(1) = y'''(1) = 0 \quad [8,8]$$

Exam Code: 112415
(30)

Paper Code: 5180

**Programme: Bachelor of Science (Honours) Mathematics
Semester-V**

Course Title: Riemann Integration

Course Code: BOML-5334

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 16 marks.

Section-A

1.(a) State and prove Necessary and Sufficient conditions for Riemann Integrability. (8)

(b) Show that $f(x) = \sin x$ is Integrable on $[0, \frac{\pi}{2}]$ and $\int_0^{\frac{\pi}{2}} \sin x dx = 1$ (8)

2.(a) Show that $f(x) = \begin{cases} 1, x \in Q \\ 0, x \in R - Q \end{cases}$ is not R-integrable on $[0,1]$ (8)

(b) Let f is bounded function defined on $[a,b]$ and let P be a partition of $[a,b]$. If P' is the refinement of P , then prove that $L(P, f) \leq L(P', f) \leq U(P', f) \leq U(P, f)$ (8)

Section-B

3.(a) Prove that if a function f defined on $[a,b]$ is bounded and has a finite number of points of discontinuity, then f is Riemann Integrable. (8)

(b) If f_1 and f_2 are two R-integrable function on $[a,b]$, then prove that $f_1 f_2$ is R-integrable on $[a,b]$. Is Converse true? (8)

4.(a) State and prove Second Mean value theorem of integral calculus. (8)

(b) Show that $\frac{\pi^2}{9} \leq \int_0^1 \frac{x}{\sin x} dx \leq \frac{\pi^2}{6}$ (8)

Programme:-Bachelor of Science (Honours) Mathematics (Semester-V)

Course Title: Riemann Integration (Course Code: BOML-5334)

4. (b) Show that $\frac{\pi^2}{9} \leq \int_{\pi/6}^{\pi/2} \frac{x}{\sin x} dx \leq \frac{\pi^2}{6}$

Section-C

5. State and prove Dirchlet's test for convergence of improper integral and hence show that

$$\int_e^{\infty} \frac{\log x \sin x}{x} dx \text{ is convergent at } \infty. \quad (16)$$

6(a) Examine the convergence and divergence of $\int_0^{\infty} \left(\frac{1}{1+x} - e^{-x} \right) \frac{dx}{x}$. (8)

(b) Show that $\beta(m, n) = \int_0^1 x^{m-1} (1-x)^{n-1} dx$ is convergent for positive values of m and n . (8)

Section-D

7. Define Gamma function with the help of an example and prove that $\beta(m, n) = \frac{\Gamma(m)\Gamma(n)}{\Gamma(m+n)}$ where $m > 0$ and $n > 0$ (16)

8(a) Express $\int_0^2 (8-x^3)^{-\frac{1}{3}} dx$ in terms of Beta function. (8)

(b) Show that $\int_0^{\frac{\pi}{2}} \sqrt{\tan \theta} d\theta = \frac{\pi}{\sqrt{2}}$ (8)

Exam Code: 112415
(30)

Paper Code: 5181

Programme: Bachelor of Science (Honours)
Mathematics Semester-V

Course Title: Metric Spaces

Course Code: BOML-5335



Time Allowed: 3 Hours

Max Marks: 80

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 equal 16 marks.

Section — A

1. a) Prove that the arbitrary intersection of closed sets is closed. What about their union ? Justify. 8
b) If (X, d) is a metric space. Let $d_1(x, y) = \min\{1, d(x, y)\}, \forall x, y \in X$. Then d, d_1 are equivalent metrics. 8
2. a) A set A is open iff $A = \text{Int.}(A)$. 8
b) A finite union of nowhere dense sets in a metric space is a nowhere set. What about countable union of nowhere dense sets ? Justify with example. 8

Section-B

3. a) State and prove Heine-Borali Theorem. 10
b) Let $K \subseteq Y \subseteq X$, then K is compact relative to X iff K is compact relative to Y . 6
4. a) The closure of a connected set is connected set in a metric space (X, d) . 8
b) Intervals and only intervals are connected subsets of Real numbers. 8

Section-C

5. a) The set of all sub-sequential limits of a sequence $\langle x_n \rangle$ in a metric space form a closed subset in X . 8
b) A Cauchy sequence in a metric space is convergent iff it has convergent subsequence. 8
6. a) Prove that discrete metric space is complete. 6
b) State and prove Cantor's Intersection Theorem. 10

Section-D

7. a) Let (X, d_1) and (Y, d_2) be two metric spaces and let $f: X \rightarrow Y$ be a mapping. Then f is continuous iff $\overline{f^{-1}(F)} \subseteq f^{-1}(\overline{F}), \forall F \subseteq Y$. 8

- (b) Prove that continuous image of a connected set is connected. 8
8. a) Let f be a continuous mapping of a compact metric space X into a metric space Y . Then f is uniformly continuous. 10
- (b) Give an example of a function defined on real line, which is discontinuous at every point. 6

Exam Code: 171805

Paper Code: 9502

Bachelor of Science (Honours) Physics, Semester-V

Course Title: Electronics

Course Code- BOPL-5394

Time: 3 Hours

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

1. Explain in detail construction and working of P-N Junction diode with its characteristics of forward and reverse bias.
2. Write in detail about efficiency and ripple factor of half and full wave rectifier and also discuss shunt capacitor filter.

Section-B

3. What are the different modes of operation of a transistor? Draw and explain circuit diagram of n-p-n transistor.
4. Explain the Structure and Characteristics of JEFT and Voltage divider biasing circuit.

Section-C

5. Explain in detail working of CE amplifier and also discuss amplifier analysis using h parameters.
6. Discuss the working of FET amplifier and emitter follower as a negative feedback circuit.

Section-D

7. Explain the working of inverting and non inverting amplifier and discuss atleast two applications.
8. Explain the working of CRO with its applications.

Exam Code: 103305

Paper Code: 5161

Programme: Bachelors of Science (Semester – V)

**Course Title: Food Science and Quality Control
(Vocational) (Food Analysis)**

Course Code: BSMM-5255 ✓

Time Allowed: 3 Hours

Max. Marks: 60

Note: Attempt five questions in all, selecting atleast one question from each section. Fifth question may be attempted from any section. Each question carries 12 marks. Draw diagrams wherever required.

SECTION A

- Q1. Write a comprehensive note on macronutrients present in food and their role in maintaining health. 12
- Q2. Discuss the impact of following food processing techniques on the retention of major vitamins and minerals present in foods: 12
- Pasteurization
 - Freezing
 - High Pressure Processing

SECTION B

- Q3. a. What is the basic principle of flame photometry, and how does it work for mineral analysis. 6
- b. Elaborate the general steps involved in the HPLC analysis of a vitamin sample, from sample preparation to data interpretation. 6

- Q4. a. Explain how ICP-OES support analysis of micronutrient minerals in food and agricultural products. 6
- b. Explicate the sensitivity and detection limit of ICP-OES for mineral analysis and compare it with Atomic Absorption Spectroscopy. 6

SECTION C

- Q5. a. Explain the role of refractometry in assessing the quality and ripeness of fruits and vegetables. 6
- b. Differentiate in between Newtonian and non-Newtonian fluids. Discuss the common methods to measure viscosity of such fluids. 6
- Q6. a. What is polarimetry, discuss the key components of a polarimeter and explain its working as an analytical technique. 6
- b. What is food rheology. Discuss the working principle of rotational viscometer and its application in food rheology. 6

SECTION D

- Q7. Describe the significance of gas chromatography in food analysis, its operational principles, key components and various types of detectors. 12
- Q8. Differentiate in between reverse phase and normal phase chromatography also explain various factors influencing resolution and separation efficiency of complex samples. 12

Exam Code: 103305**Paper Code: 5156****Programme: Bachelor of Science (Semester – V)**
Course Title: Microbiology (Applied Microbiology-I)**Course Code: BSMM-5343****Time Allowed: 3 Hours****Maximum Marks: 60**

Note:- Attempt five questions in all, selecting atleast one question from each of the four sections (A-D). The fifth question may be attempted from any section. Each question carries 12 marks.

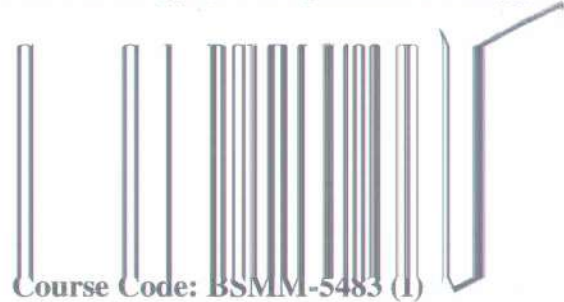
Section A		
Q1 a.	Explain the contributions of Louis Pasteur to the field of fermentation and industrial microbiology.	6
b.	What are the main sources of industrial microorganisms, and how are they selected for commercial use?	6
Q2 a.	Explain the different methods used to preserve stock cultures of industrial microorganisms.	6
b.	Describe the role of microbial culture collections in industrial microbiology.	6
Section B		
Q3 a.	Describe the primary screening methods used for isolating useful microorganisms.	6
b.	What methods are used to isolate useful bacterial strains for industrial purposes?	6
Q4 a.	Discuss briefly how production medium is optimized for microbial growth and product yield?	6
b.	What are the essential characteristics of an ideal fermentation medium?	6
Section C		
Q5 a.	Differentiate between submerged fermentation and solid-state fermentation.	6
b.	Explain the role of aeration in fermentation and how it impacts microbial growth.	6
Q6 a.	What are the advantages and challenges of using fed-batch fermentation in industrial production?	6
b.	Discuss the significance of analyzing market potential when designing an industrial fermentation process.	6
Section D		
Q7 a.	Explain the importance of separating solid particles from fermentation broth in downstream processing.	6
	Discuss the various unit operations used in downstream processing	6

Exam Code: 103305
(30)

Paper Code: 5154

Programme: Bachelor of Science
Semester-V

Course Title: Zoology (Developmental Biology)



Time Allowed: 3 Hours

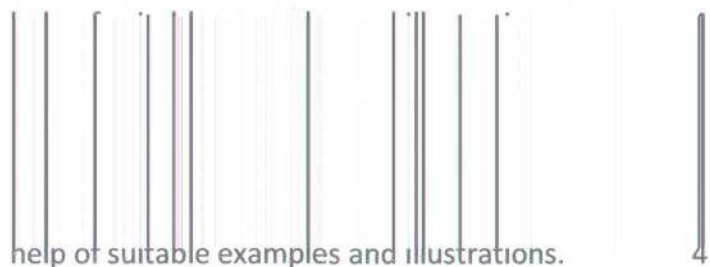
Max Marks: 30

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. All questions carry equal marks (6). Draw diagrams wherever necessary.

Section A

1. Elaborate the process of fertilization. Explain with suitable examples and diagrams. 6

2. a) What do you understand by the term parthenogenesis. Explain its different types with the



- b) Classify the type of ova based on amount of reserve food. 2

Section B

3. Elaborate various morphogenetic movements that occur during the process of gastrulation & discuss significance of gastrulation during development. 6
4. Explain the process of embryonic development and metamorphosis in Herdmania. 6

Section C

5. a) Write a detailed account of metamorphosis -in frog. 4
b) Draw fate maps of Chick. 2
6. Explain the process of development up to three germinal layers in Frog. 6

Section D

7. Describe embryonic development in Rabbit with the help of well labelled diagrams. 6
8. Elaborate various types of placenta and their functions. 6

Exam Code: 103305
(30)

Paper Code: 5155

Programme: Bachelor of Science Semester-V

Course Title: Zoology (Genetics)

Course Code: BSMM-5483 (II) ✓

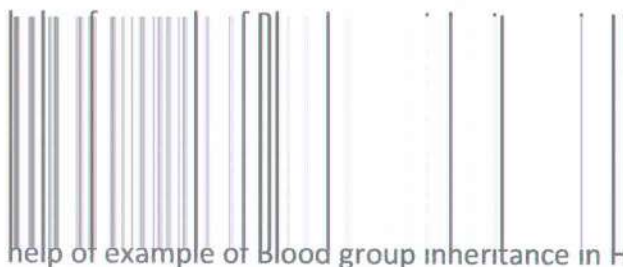
Time Allowed: 3 Hours

Max Marks: 30

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). Write legibly and Draw well labeled diagrams Wherever necessary. Each question carries equal (6) marks.

Section-A

1. Describe the Concept of Complementary genes with the help of suitable example. How they modify the F_2 Mendelian ratios. (6)
2. (a) Discuss the Concept of Multiple allelism with the



help of example of blood group inheritance in Humans.

- (b) What are Sex linked characters? Give examples. (3+3)

Section-B

3. (a) Give evidence in favor of semi-Conservative mode of DNA Replication.
(b) Explain Wobble Hypothesis. (4+2)
4. Describe the role of Ribosomes in the process of protein synthesis. (6)

Section-C

5. Write short notes on-
(a) Carcinogenesis (2)
(b) Detection of mutations in Maize (3+3)
6. What are inborn errors of Metabolism? Discuss with reference to Alkaptonuria and Albinism. (5)

Section-D

7. (a) Describe Hardy Weinberg's law of genetical equilibrium. Enlist the factors which can alter genetical equilibrium.
(b) Differentiate between transformation and transduction in Bacteria (3+3)
8. Explain the following:
(a) DNA Fingerprinting
(b) Gene Cloning (3+3)

Exam Code: 103305
(30)

Paper Code: 5159

Programme: Bachelor of Science
Semester-V

Course Title: Botany (Plant Physiology)

Course Code: BSMM-5075 (I)

Time Allowed: 3 Hours

Max Marks: 30

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 equal (6) marks.

SECTION-I

1. Define transpiration? Explain the mechanism of transpiration in plants? 6
2. Differentiate between the following: -
 - a. Macronutrients and micronutrients

- b. Symptoms of N and Mg deficiency in plants

3+3

SECTION-II

3. Writes a short note on: -

- a. Seed dormancy
- b. Florigen concept
- c. photoperiodism 2+2+2
- 4. What is source-sink relationship? Describe the mechanism of phloem transport? 3+3

SECTION-III

- 5. What do you understand by photophosphorylation? Distinguish between cyclic and non-cyclic? 6
- 6. Explain the Calvin cycle in detail with well labelled diagram? 6

SECTION-IV

- 7. Discuss the role of: -
 - a. Ethylene in fruit ripening
 - b. Auxin in parthenocarpy 3+3
- 8. Define photomorphogenesis? Discuss the mechanism? 6

Exam Code: 103305
(30)

Paper Code: 5160

Programme: Bachelor of Science
Semester-V

Course Title: Botany (Biochemistry and Biotechnology)

Course Code: BSMM-5075 (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 may be attempted from any section. Each question carries 6 marks.

Section-A

1. (a) Describe the classification of enzymes on the basis of reactions they catalyse. (3)
(b) With the help of suitable examples, explain how coenzymes and cofactors affect enzyme activity. (3)
2. Explain the process of Kreb's cycle. (6)

Section-B

3. What is biological nitrogen fixation? Discuss the mechanism of this process (6)

4. (a) Describe the process of biosynthesis of fatty acids. (4)
(b) Write a brief note on functions of lipids. (2)

Section-C

5. Discuss the importance of cloning vectors in genetic engineering taking suitable examples. (6)
6. (a) Differentiate between genomic and cDNA library. Discuss their applications. (4)
(b) What are transposable elements? Write their importance. (2)

Section-D

7. (a) Briefly describe the vectors used for gene transfer in plants.
(b) Discuss the importance of marker genes with the help of suitable examples. (3,3)
8. Write notes on the following:
(a) Cellular totipotency and morphogenesis
(b) Achievements of plant biotechnology in crop improvement. (3,3)

Exam Code: 103305

Paper Code: 5157

Programme: Bachelor of Science (Semester – V)

Course Title: Chemistry (Inorganic Chemistry)

Course code: BSMM / BSNM – 5084 (I)

Time: 3 Hours

Max Marks: 30

Instructions: Candidates 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 equal (6) marks.

Section-A

1. (a) Describe the main idea of crystal field theory. Explain and show diagrammatically the crystal field splitting in tetrahedral complexes. (4)
(b) Octahedral complexes have ^{more} less crystal field-splitting energy than tetrahedral complexes. Why? (2)
2. (a) Explain the factors that affect crystal-field splitting energy. Support your answer with suitable examples. (4)
(b) Discuss the limitations of valence bond theory. (2)

Section-B

3. (a) Describe various types of magnetic behaviours along with suitable examples. (2)
(b) Define magnetic susceptibility. Describe Faraday's method for the determination of magnetic susceptibility. (4)
4. (a) What do you mean by thermodynamic stability of metal complexes? Discuss various factors affecting the stability of metal complexes. (4)
(b) Calculate the spin only magnetic moment of Cr^{2+} and Cu^{2+} ions. (2)

Section-C

5. (a) What are term symbols? Determine the term symbols for p^2 system. (4)
(b) Write the spectroscopic ground state for d^3 and d^4 electronic configuration. (2)
6. (a) Describe the selection rules for d-d transitions. Why are these transitions considered as weak transitions? (4)
(b) Draw the Orgel diagram for d^3 system in octahedral and tetrahedral fields. (2)

Section-D

7. (a) Discuss the preparation, properties and applications of alkyls and aryls of lithium. (4)
(b) Define EAN rule. Show whether $Fe(CO)_5$ and $V(CO)_6$ follow the EAN rule or not. (2)
8. (a) What is homogenous catalysis? Discuss in detail the mechanism of the homogenous hydrogenation reaction. (4)
(b) Classify the organometallic compounds based on the nature of the bonding involved. Give suitable examples. (2)

Paper Code: 5158

Programme	Exam Code	Course Code
Bachelor of Science (Medical)	103305	BSMM-5084 (II)
Bachelor of Science (Non-Medical)	103305	BSNM-5084 (II)

Semester- V

Course Title: Chemistry (Physical Chemistry)
(40)

Time Allowed: 3 Hours

Max Marks: 30

Note: Attempt five questions, selecting at least one from each section (A,B,C and D). The fifth question may be attempted from any section. Each question carries 6 marks.

SECTION-A

1. (a) Discuss the variation of molar conductivity with concentration for strong and weak electrolytes. (3)
(b) State the postulates of Arrhenius theory of electrolytic dissociation. (3)
2. Describe briefly the principle of experimental determination of transference number by Hittorf's method. (6)

SECTION-B

3. (a) Define corrosion. Explain the electrochemical theory for the mechanism of rusting of iron. (3)
(b) Derive the following equation for the pH of an acidic buffer. (3)

$$\text{pH} = \text{pK}_a + \log \frac{[\text{Salt}]}{[\text{Acid}]}$$

4. (a) Write the half cell reaction and the overall reaction for the electrochemical cell $\text{Zn}, \text{Zn}^{2+} (0.1 \text{ M}) \mid \text{Cd}^{2+} (0.001 \text{ M}) \mid \text{Cd}$ and calculate the e.m.f. (the cell potential) at assuming ideality. The standard reduction potentials of redox couples $\text{Cd}^{2+} \mid \text{Cd}$ and $\text{Zn}^{2+} \mid \text{Zn}$ are -0.40 V and -0.76 V respectively. (3)
(b) How do determine the pH of solution using Quinhydrone electrode. How is this electrode useful in determining the pH of a solution. (3)

SECTION-C

5. (a) How many α and β -particles will be emitted when $^{238}\text{Ra}_{88}$ changes to $^{212}\text{Bi}_{83}$? (3)
(b) Explain the construction and working of 'Nuclear Reactor'. (3)
6. (a) Derive expression for disintegration constant and half-life period of a radioactive elements. What is expression for average life? What do you understand by 1 curie? (3)

(b) How will you explain nuclear stability in terms of neutron/proton ratio. Represent stability belt graphically. Interpret the results from the graph.

(3)

SECTION-D

7. (a) Discuss pure rotational spectra of diatomic molecules. (3)
- (b) Explain the formation of electronic band spectra with the help of potential energy curves? How are these curves useful in determining the dissociation energies of the molecules? (3)
8. (a) What do you understand by Rayleigh scattering, Stokes line, Anti-Stokes lines? (3)
- (b) What are P, Q, R branches of the vibration-rotation spectrum? (3)

Exam Code: 105405

Paper Code: 5199-R

**Programme: Bachelor of Business Administration
Semester - V**

Course Title: Entrepreneurship and Small Business

Course Code: BBRL-5324

Time Allowed: 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

1. Discuss various Theories of Entrepreneurship
2. Explain the different forms of Business structure by citing their features. According to you which form of structure is better and why?

SECTION -B

3. Elucidate the characteristics of an entrepreneur leader. How risk taking impacts decision making capability of an entrepreneur.
4. Explain the role of Government in organizing Entrepreneurial Development Programmes.

SECTION -C

5. Explain in detail the Legal and Tax considerations related to small scale business.
6. What is the role of Financial Management in current operations and expansion of capital for small scale business?

SECTION -D

7. Explain the role of small scale business in the development of National Economy.
8. Explain the various modern technologies used for the development of small scale business.

Exam Code: 109105

Paper Code: 5191-R

Programme: Bachelor of Commerce (Honours)

Semester – V

Course Code: BCOL-5096

Course Title: Production and Operations Management

Time Allowed: 3 Hours

Max. Marks: 80

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

Section – A

1. Discuss the concept of productions and operations management along with pros and cons.
2. Discuss various production scheduling techniques in detail.

Section – B

3. Discuss various factors affecting productivity of a firm in detail.
4. Discuss the concepts in detail: a) Work Measurement
b) Value Analysis.

Section – C

5. Explain the concept of inventory management? Discuss classification of inventory.
6. Explain the concepts:
a) Just in Time Manufacturing Systems
b) Statistical Quality Control

Section-D

7. Explain concept and components of supply chain management in detail.
8. Explain the concepts: a) Inventory control models
b) Logistic Management