

G 101 OE1.3

(2021 Batch onwards)

Reg. No:

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St Aloysius College (Autonomous)
Mangaluru

B.A. Semester III – Degree Examination

December - 2022

HISTORY – OPEN ELECTIVE

FREEDOM MOVEMENT IN KARNATAKA (1800 to 1947)

Time: 2½ Hours

Max. Marks: 60

Note : Answer all questions to the point without exceeding the maximum limit of pages.

ಎಲ್ಲಾ ಪ್ರಶ್ನೆಗಳಿಗೆ ಪುಟದ ಮಿತಿಯನ್ನು ಮೀರದಂತೆ ಸಮರ್ಪಕವಾಗಿ ಉತ್ತರಿಸಿ.

SECTION - A

I Answer any TWO of the following in 3 pages each. (15×2=30)

ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಎರಡು ಪ್ರಶ್ನೆಗಳಿಗೆ ಮೂರು ಪುಟದಷ್ಟು ಉತ್ತರಿಸಿ.

1. Describe the early uprisings in Karnataka with a special reference to Bedas of Halagali and Surapura Revolt of Venkatappa Nayaka.
ಹಲಗಲಿಯ ಬೇಡರು ಮತ್ತು ಸುರಪುರ ವೆಂಕಟಪ್ಪ ನಾಯಕನ ದಂಗೆಯ ಉಲ್ಲೇಖದೊಂದಿಗೆ ಕರ್ನಾಟಕದ ಆರಂಭಿಕ ದಂಗೆಗಳನ್ನು ವಿವರಿಸಿ.
2. Briefly explain the causes for the rise of nationalism in Karnataka.
ಕರ್ನಾಟಕದಲ್ಲಿ ರಾಷ್ಟ್ರೀಯತೆಯ ಉದಯಕ್ಕೆ ಕಾರಣಗಳನ್ನು ಸಂಕ್ಷಿಪ್ತವಾಗಿ ವಿವರಿಸಿ
3. Explain the establishment of responsible government in Princely State of Mysore.
ಮೈಸೂರು ಸಂಸ್ಥಾನದಲ್ಲಿ ಜವಾಬ್ದಾರಿಯುತ ಸರ್ಕಾರದ ಸ್ಥಾಪನೆಯನ್ನು ವಿವರಿಸಿ.

Section - B

II Answer any THREE of the following in a page each. (3×5=15)

ಕೆಳಗಿನ ಯಾವುದಾದರೂ 3 ಪ್ರಶ್ನೆಗಳಿಗೆ ಒಂದು ಪುಟದಷ್ಟು ಉತ್ತರಿಸಿ.

1. Explain the causes and course of Kodagu revolt of 1837.
1837ರ ಕೊಡಗು ದಂಗೆಯ ಕಾರಣಗಳು ಹಾಗೂ ಹಾದಿಯನ್ನು ವಿವರಿಸಿ.
2. Analyze the Khadi Movement in Karnataka.
ಕರ್ನಾಟಕದಲ್ಲಿ ಖಾದಿ ಚಳವಳಿಯನ್ನು ವಿಶ್ಲೇಷಿಸಿ
3. Write a note on the the Belguam Congress Session of 1924.
1924ರ ಬೆಳಗಾವಿ ಕಾಂಗ್ರೆಸ್ ಅಧಿವೇಶನದ ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
4. Describe the process of Non-Cooperation Movement in Karnataka.
ಕರ್ನಾಟಕದಲ್ಲಿ ಅಸಹಕಾರ ಚಳವಳಿಯ ಪ್ರಕ್ರಿಯೆಯನ್ನು ವಿವರಿಸಿ.
5. Assess the role of women in the freedom struggle of Karnataka.
ಕರ್ನಾಟಕದ ಸ್ವಾತಂತ್ರ್ಯ ಹೋರಾಟದಲ್ಲಿ ಮಹಿಳೆಯರ ಪಾತ್ರವನ್ನು ನಿರ್ಣಯಿಸಿ.

Section-C

III Answer the following in 3-5 sentences each. (5×3=15)

ಕೆಳಗಿನ ಪ್ರಶ್ನೆಗಳಿಗೆ 3-5 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿ.

1. Explain the role of Chennamma in Kitturu Revolt.
ಕಿತ್ತೂರು ಬಂಡಾಯದಲ್ಲಿ ಚೆನ್ನಮ್ಮನ ಪಾತ್ರವನ್ನು ವಿವರಿಸಿ.
2. Discuss the role of Harijan Sevak Sangha in freedom movement.
ಸ್ವಾತಂತ್ರ್ಯ ಚಳವಳಿಯಲ್ಲಿ ಹರಿಜನ ಸೇವಕ ಸಂಘದ ಪಾತ್ರವನ್ನು ಚರ್ಚಿಸಿ.
3. Examine the role of Karnad Sadashiva Rao in the freedom struggle.
ಸ್ವಾತಂತ್ರ್ಯ ಹೋರಾಟದಲ್ಲಿ ಕರ್ನಾಡ್ ಸದಾಶಿವ ರಾವ್ ಅವರ ಪಾತ್ರವನ್ನು ಪರಿಶೀಲಿಸಿ.
4. Explain the Quit India Movement in Karnataka.
ಕರ್ನಾಟಕದಲ್ಲಿ ಕ್ವಿಟ್ ಇಂಡಿಯಾ ಚಳವಳಿಯನ್ನು ವಿವರಿಸಿ .
5. Mention the role of the Kannada newspapers in the freedom struggle.
ಸ್ವಾತಂತ್ರ್ಯ ಹೋರಾಟದಲ್ಲಿ ಕನ್ನಡ ಪತ್ರಿಕೆಗಳ ಪಾತ್ರವನ್ನು ಉಲ್ಲೇಖಿಸಿ.

(2021 Batch Onwards)

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St Aloysius College (Autonomous)

Mangaluru

B.A. - SEMESTER III – Degree Examination

December - 2022

ECONOMICS – OPEN ELECTIVE

ECONOMICS OF INSURANCE

Time: 2½ hrs.

Max Marks: 60

PART - A/ ವಿಭಾಗ ಎ

Answer any FIVE of the following questions.

(5×2=10)

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ಐದು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ.

1. Define Insurance.
ವಿಮೆಯನ್ನು ವ್ಯಾಖ್ಯಾನಿಸಿ
2. What do you mean by underwriting of risk?
ಅಂಡರ್ವೈಟಿಂಗ್ ಗಂಡಾಂತರದ ಅರ್ಥವೇನು?
3. Mention the Profile of Insurance companies in India.
ಭಾರತದಲ್ಲಿನ ವಿಮಾ ಕಂಪನಿಗಳ ಪ್ರೊಫೈಲ್ ನ್ನು ಉಲ್ಲೇಖಿಸಿ.
4. What is insurable interest?
ವಿಮೆ ಮಾಡಬಹುದಾದ ಬಡ್ಡಿ ಎಂದರೇನು?
5. Expand IRDAI. When was it established?
IRDAI ಅನ್ನು ವಿಸ್ತರಿಸಿ. ಇದನ್ನು ಯಾವಾಗ ಸ್ಥಾಪಿಸಲಾಯಿತು?
6. Define life insurance.
ಜೀವ ವಿಮೆಯನ್ನು ವ್ಯಾಖ್ಯಾನಿಸಿ.
7. What is insurance marketing?
ವಿಮಾ ಮಾರ್ಕೆಟಿಂಗ್ ಎಂದರೇನು?
8. What is risk management?
ಗಂಡಾಂತರ ನಿರ್ವಹಣೆ ಎಂದರೇನು?

PART - B/ ವಿಭಾಗ ಬಿ

Answer any SIX of the following questions.

(6×5=30)

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ಆರು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ.

9. Write a note on advantages of life insurance.
ಜೀವ ವಿಮೆಯ ಪ್ರಯೋಜನಗಳ ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ
10. Explain group insurance plans.
ಗುಂಪು ವಿಮಾ ಯೋಜನೆಗಳನ್ನು ವಿವರಿಸಿ.
11. Write a note on General Insurance Business (Nationalization) Act, 1972.
ಸಾಮಾನ್ಯ ವಿಮಾ ವ್ಯವಹಾರ (ರಾಷ್ಟ್ರೀಕರಣ) ಕಾಯಿದೆ, 1972 ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

Contd...2

12. Explain the steps in personal selling process.
ವೈಯಕ್ತಿಕ ಮಾರಾಟ ಪ್ರಕ್ರಿಯೆಯಲ್ಲಿನ ಹಂತಗಳನ್ನು ವಿವರಿಸಿ.
13. Write a note on insurance instruments as investment.
ಹೂಡಿಕೆಯಾಗಿ ವಿಮೆಯ ಸಾಧನಗಳ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
14. Explain the importance of insurance.
ವಿಮೆಯ ಮಹತ್ವವನ್ನು ವಿವರಿಸಿ.
15. Explain the principles of insurable interest.
ವಿಮೆ ಮಾಡಬಹುದಾದ ಬಡ್ಡಿಯ ತತ್ವಗಳನ್ನು ವಿವರಿಸಿ.
16. Explain the fundamental principles of insurance
ವಿಮೆಯ ಮೂಲಭೂತ ತತ್ವಗಳನ್ನು ವಿವರಿಸಿ.
17. Explain the types of health insurance policies
ಆರೋಗ್ಯ ವಿಮಾ ಪಾಲಿಸಿಗಳ ವಿಧಗಳನ್ನು ವಿವರಿಸಿ.

PART – C/ ವಿಭಾಗ ಸಿ

Answer any TWO of the following questions.

(2×10=20)

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ಎರಡು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ.

18. Explain the features and functions of insurance.
ವಿಮೆಯ ವೈಶಿಷ್ಟ್ಯಗಳು ಮತ್ತು ಕಾರ್ಯಗಳನ್ನು ವಿವರಿಸಿ.
19. Define risk. Explain classification /types of risk.
ಗಂಡಾಂತರವನ್ನು ವ್ಯಾಖ್ಯಾನಿಸಿ. ಗಂಡಾಂತರದ ವಿಧಗಳನ್ನು ವಿವರಿಸಿ.
20. Explain the marketing strategies of insurance companies.
ವಿಮಾ ಕಂಪನಿಗಳ ಮಾರುಕಟ್ಟೆಯ ತಂತ್ರಗಳನ್ನು ವಿವರಿಸಿ.
21. Explain the classifications of Life insurance Policies.
ಜೀವ ವಿಮಾ ಪಾಲಿಸಿಗಳ ವರ್ಗೀಕರಣಗಳನ್ನು ವಿವರಿಸಿ.

(2021 Batch Onwards)

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St Aloysius College (Autonomous)

Mangaluru

B.A. Semester III – Degree Examination

December - 2022

**POLITICAL SCIENCE - OPEN ELECTIVE
UNDERSTANDING GANDHI**

Time: 2½ Hours

Max. Marks: 60

I Answer ALL the following questions in 2 sentences each.

(1x6=6)

ಈ ಕೆಳಗಿನ ಎಲ್ಲಾ ಪ್ರಶ್ನೆಗಳಿಗೆ 2 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ.

1. What is Kheda Peasant Satyagraha?
ಖೇದ ರೈತರ ಸತ್ಯಾಗ್ರಹ ಎಂದರೇನು?
2. When do we commemorate international day of non-violence?
ಅಂತಾರಾಷ್ಟ್ರೀಯ ಅಹಿಂಸಾ ದಿನವನ್ನು ನಾವು ಯಾವಾಗ ಆಚರಿಸುತ್ತೇವೆ ? ಏಕೆ?
3. What is Vaikom satyagraha?
ವೈಕೊಂ ಸತ್ಯಾಗ್ರಹ ಎಂದರೇನು?
4. What is Bardoli Movement?
ಬರ್ಡೋಲಿ ಚಳುವಳಿ ಎಂದರೇನು?
5. Who is Martin Luther King Jr?
ಮಾರ್ಟಿನ್ ಲೂಥರ್ ಕಿಂಗ್ ಜೂನಿಯರ್ ಯಾರು?
6. State any two newspapers edited by Gandhi.
ಗಾಂಧೀಜಿಯವರು ಸಂಪಾದಿಸಿರುವ ಎರಡು ಪತ್ರಿಕೆಗಳನ್ನು ತಿಳಿಸಿ.

II Answer any THREE of the following questions in 10 sentences each.

(4x3=12)

ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಮೂರು ಪ್ರಶ್ನೆಗಳಿಗೆ 10 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ.

7. Write a note on Khilafat Movement.
ಖಿಲಾಫತ್ ಚಳುವಳಿ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
8. Explain "Non Co-Operation Movement".
ಅಸಹಕಾರ ಚಳುವಳಿಯನ್ನು ವಿವರಿಸಿರಿ.
9. Write a note on Henry David Thoreau.
ಹೆನ್ರಿ ಡೇವಿಡ್ ಥೋರು ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
10. Explain Gandhi's opinion on Untouchability.
ಅಸ್ಪೃಶ್ಯತೆಯ ಬಗ್ಗೆ ಗಾಂಧೀಜಿಯವರ ಅಭಿಪ್ರಾಯವನ್ನು ಬರೆಯಿರಿ.

III Answer any THREE of the following questions in 20 sentences each.

(6x3=18)

ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಮೂರು ಪ್ರಶ್ನೆಗಳಿಗೆ 20 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ.

11. Write a review on the film "Gandhi".
"ಗಾಂಧಿ" ಚಿತ್ರದ ಬಗ್ಗೆ ವಿಮರ್ಶೆಯನ್ನು ಬರೆಯಿರಿ.

Contd...2

12. Explain Gandhi's views on truth and non-violence.
ಸತ್ಯ ಹಾಗೂ ಅಹಿಂಸೆ ಬಗ್ಗೆ ಗಾಂಧೀಜಿಯ ವಿಚಾರಗಳನ್ನು ವಿವರಿಸಿರಿ.
13. Examine the influences of Leo Tolstoy on Gandhi.
ಗಾಂಧೀಜಿಯವರ ಮೇಲೆ ಲಿಯೋ ಟಾಲ್ ಸ್ಟಾಯ್ ರವರ ಪ್ರಭಾವವನ್ನು ವಿವರಿಸಿ.
14. Write Gandhi's Critique on English Parliament.
ಇಂಗ್ಲೆಂಡ್ ಸಂಸತ್ತಿನಲ್ಲಿ ಗಾಂಧಿಯವರ ಟೀಕೆಗಳನ್ನು ವಿವರಿಸಿ.

IV Answer any ONE of the following questions in about 30 sentences each.

(10x1=10)

- ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ 1 ಪ್ರಶ್ನೆಗೆ 30 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿ.
15. Explain the journey of Gandhi in South Africa. What are the political questions did he address there?
ದಕ್ಷಿಣ ಆಫ್ರಿಕಾದಲ್ಲಿ ಗಾಂಧಿಯವರ ಪ್ರಯಾಣವನ್ನು ವಿವರಿಸಿರಿ. ಅವರು ಅಲ್ಲಿ ಎದುರಿಸಿದ ರಾಜಕೀಯ ಪ್ರಶ್ನೆಗಳೇನು?
16. Examine the techniques of satyagraha.
ಸತ್ಯಾಗ್ರಹದ ತಂತ್ರಗಳನ್ನು ವಿವರಿಸಿ.

V Answer any ONE of the following questions in 40 sentences each.

(14x1=14)

- ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ 1 ಪ್ರಶ್ನೆಗೆ ನಲವತ್ತು ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿ.
17. Explain Gandhi's opinion on Swadeshi and Swaraj.
ಸ್ವದೇಶಿ ಮತ್ತು ಸ್ವರಾಜ್ಯದ ಬಗ್ಗೆ ಗಾಂಧೀಜಿಯ ಅಭಿಪ್ರಾಯವನ್ನು ವಿವರಿಸಿ.
18. Examine Gandhian views on Religion and politics.
ಧರ್ಮ ಮತ್ತು ರಾಜಕೀಯದ ಬಗ್ಗೆ ಗಾಂಧಿಯವರ ಅಭಿಪ್ರಾಯಗಳನ್ನು ಬರೆಯಿರಿ.

(2021 batch onwards)

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**St Aloysius College (Autonomous)
Mangaluru**

B.A. Semester III – Degree Examination

December - 2022

SOCIOLOGY - OPEN ELECTIVE

SOCIOLOGY OF TOURISM MANAGEMENT

Time: 2½ Hours

Max. Marks: 60

PART - A

Answer any FIVE Questions in 2-3 sentences each.

(5x2=10)

ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಐದು ಪ್ರಶ್ನೆಗಳಿಗೆ ತಲಾ 2-3 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ.

1. What is meant Sociology of Tourism?
ಪ್ರವಾಸೋದ್ಯಮದ ಸಮಾಜಶಾಸ್ತ್ರ, ಎಂದರೇನು?
2. What are the different types of tourism?
ಪ್ರವಾಸೋದ್ಯಮದ ವಿವಿಧ ಪ್ರಕಾರಗಳು ಯಾವುವು?
3. Mention the two forms of motivation.
ಪ್ರೇರಣೆಯ ಎರಡು ರೂಪಗಳನ್ನು ತಿಳಿಸಿರಿ.
4. What is meant by sustainability of tourism?
ಪ್ರವಾಸೋದ್ಯಮದ ಸುಸ್ಥಿರತೆ ಎಂದರೇನು?
5. What are the different types of accommodation in tourism?
ಪ್ರವಾಸೋದ್ಯಮದಲ್ಲಿ ವಿವಿಧ ರೀತಿಯ ವಸತಿ ಸೌಕರ್ಯಗಳು ಯಾವುವು?
6. What are the different modes of transportation used in tourism?
ಪ್ರವಾಸೋದ್ಯಮದಲ್ಲಿ ಬಳಸಲಾಗುವ ವಿವಿಧ ಸಾರಿಗೆ ವಿಧಾನಗಳು ಯಾವುವು?
7. What is tourism marketing?
ಪ್ರವಾಸೋದ್ಯಮ ಮಾರುಕಟ್ಟೆ ಎಂದರೇನು?
8. What is meant by E-Tourism?
ಇ-ಟೂರಿಸಂ ಎಂದರೇನು?

PART - B

Answer any SIX of the following Questions.

(6x5=30)

ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಆರು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿರಿ.

9. Discuss culture and tourism.
ಸಂಸ್ಕೃತಿ ಮತ್ತು ಪ್ರವಾಸೋದ್ಯಮವನ್ನು ಚರ್ಚಿಸಿರಿ.
10. Write a note on Sociology of Tourism.
ಪ್ರವಾಸೋದ್ಯಮ ಸಮಾಜಶಾಸ್ತ್ರದ ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
11. Describe cultural and eco-tourism.
ಸಾಂಸ್ಕೃತಿಕ ಮತ್ತು ಪರಿಸರ ಪ್ರವಾಸೋದ್ಯಮವನ್ನು ವಿವರಿಸಿರಿ.

Contd...2

12. Write a note on sustainable development goals of tourism.
ಪ್ರವಾಸೋದ್ಯಮದ ಸುಸ್ಥಿರ ಅಭಿವೃದ್ಧಿ ಗುರಿಗಳ ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
13. Explain the components of tourism system.
ಪ್ರವಾಸೋದ್ಯಮ ವ್ಯವಸ್ಥೆಯ ಅಂಶಗಳನ್ನು ವಿವರಿಸಿರಿ.
14. Differentiate between Traditional tourism and Niche Tourism.
ಸಾಂಪ್ರದಾಯಿಕ ಪ್ರವಾಸೋದ್ಯಮ ಮತ್ತು ಸ್ಥಾನಿತ ಪ್ರವಾಸೋದ್ಯಮವನ್ನು ಪ್ರತ್ಯೇಕಿಸಿರಿ.
15. Write a note on tourism management.
ಪ್ರವಾಸೋದ್ಯಮ ನಿರ್ವಹಣೆ ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
16. Discuss the role of intermediaries in tourism management.
ಪ್ರವಾಸೋದ್ಯಮ ನಿರ್ವಹಣೆಯಲ್ಲಿ ಮಧ್ಯವರ್ತಿಗಳ ಪಾತ್ರವನ್ನು ಚರ್ಚಿಸಿರಿ.
17. Analyse the demand for tourism at individual and market level.
ವೈಯಕ್ತಿಕ ಮತ್ತು ಮಾರುಕಟ್ಟೆ ಮಟ್ಟದಲ್ಲಿ ಪ್ರವಾಸೋದ್ಯಮದ ಬೇಡಿಕೆಯನ್ನು ವಿಶ್ಲೇಷಿಸಿರಿ.

PART - C

Answer any TWO of the following.

(2x10=20)

ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಎರಡು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿರಿ.

18. Write an essay on tourism and tourist.
ಪ್ರವಾಸೋದ್ಯಮ ಮತ್ತು ಪ್ರವಾಸಿಗರ ಕುರಿತು ಪ್ರಬಂಧ ಬರೆಯಿರಿ.
19. Discuss the development and structure of the tourist system.
ಪ್ರವಾಸೋದ್ಯಮ ವ್ಯವಸ್ಥೆಯ ಅಭಿವೃದ್ಧಿ ಮತ್ತು ರಚನೆಯನ್ನು ಚರ್ಚಿಸಿರಿ.
20. Explain the impact of tourism on host place.
ಅತಿಥೇಯ ಸ್ಥಳದ ಮೇಲೆ ಪ್ರವಾಸೋದ್ಯಮದ ಪ್ರಭಾವವನ್ನು ವಿವರಿಸಿರಿ.
21. Write an essay on E-Tourism.
ಇ-ಟೂರಿಸಂ ಕುರಿತು ಪ್ರಬಂಧವನ್ನು ಬರೆಯಿರಿ.

G 105 OE1.3

(2021 Batch onwards)

Reg. No:

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St Aloysius College (Autonomous)
Mangaluru
B.A Semester III- Degree Examination
December-2022
JOURNALISM - (Open Elective)
Feature Writing and Freelancing

Time: 2 ½ Hours

Max. Marks: 60

Part A

Answer any FIVE of the following

(5X10=50)

1. What is feature writing? Explain its types with examples.
ನುಡಿಚಿತ್ರ ಬರವಣಿಗೆ ಎಂದರೇನು? ಅದರ ವಿಧಗಳನ್ನು ಉದಾಹರಣೆಯೊಂದಿಗೆ ವಿವರಿಸಿ.
2. Write a review of a book you read recently.
ನೀವು ಇತ್ತೀಚೆಗೆ ಓದಿದ ಪುಸ್ತಕದ ವಿಮರ್ಶೆಯನ್ನು ಬರೆಯಿರಿ.
3. Explain the qualities of a freelancer.
ಹವ್ಯಾಸಿ ಬರಹಗಾರನಿಗೆ ಇರಬೇಕಾದ ಗುಣಗಳನ್ನು ವಿವರಿಸಿ.
4. Explain the tools and resources for free-lance writers.
ಹವ್ಯಾಸಿ ಬರಹಗಾರನಿಗೆ ಬೇಕಾದ ಸಾಧನಗಳು ಮತ್ತು ಸಂಪನ್ಮೂಲಗಳನ್ನು ವಿವರಿಸಿ.
5. Discuss the difference between features and news story
ನುಡಿಚಿತ್ರ ಮತ್ತು ಸುದ್ದಿಗಳ ನಡುವಿನ ವ್ಯತ್ಯಾಸವನ್ನು ಚರ್ಚಿಸಿ.
6. Explain the importance of the travel writers own perception of the place.
ಪ್ರವಾಸಿ ಬರಹಗಾರರು ಸ್ಥಳದ ಸ್ವಂತ ಗ್ರಹಿಕೆಯ ಪ್ರಾಮುಖ್ಯತೆಯನ್ನು ವಿವರಿಸಿ
7. Explain the recent trends in feature writing.
ನುಡಿಚಿತ್ರ ಬರವಣಿಗೆಯ ಇತ್ತೀಚಿನ ಪ್ರವೃತ್ತಿಗಳನ್ನು ವಿವರಿಸಿ.

Part B

Write short notes

(4X 2½ =10)

1. Freelancing for social media
ಸಾಮಾಜಿಕ ಜಾಲತಾಣಗಳಲ್ಲಿ ಹವ್ಯಾಸಿ ಬರವಣಿಗೆ
2. Historical Feature
ಐತಿಹಾಸಿಕ ನುಡಿಚಿತ್ರ
3. Techniques of profile writing
ವ್ಯಕ್ತಿಚಿತ್ರಣ ಬರವಣಿಗೆಯ ತಂತ್ರಗಳು
4. Career in feature writing
ನುಡಿಚಿತ್ರ ಬರವಣಿಗೆಯಲ್ಲಿ ವೃತ್ತಿಪರತೆ

(2021 batch onwards)

G 108 OE1.3

Reg. No.:

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St Aloysius College (Autonomous)
Mangaluru
BA Semester III – Degree Examination
December - 2022
English Major (Open Elective)

Phonetics of English Language

Time: 2½ hrs.

Max Marks: 60

I. Answer any FOUR of the following in about 100 to 150 words (4x5=20)

1. Draw a neat diagram of the Vowels and indicate the positions of the 12 pure vowels / monophthongs of English. Illustrate each one of them with TWO examples each.
2. Draw a diagram of the human organs of speech and indicate the positions of the major articulators.
3. Which are the Fricatives and Plosives of English. Illustrate them with an example each.
4. Explain Labiodental and Velar sounds. Illustrate them with an example each.
5. Describe 'consonants.' Write the three-term-labels of any 08 consonants.

II. Answer any TEN of the following in about 2-3 sentences (10X2=20) each.

1. Illustrate the dental fricatives of English with an example each.
2. Expand IPA and RP.
3. List the Palato-Alveolar sounds of English. Give an example each.
4. Identify the Diphthongs in the words, 'rose' and 'house.'
5. Mention any four Diphthongs with examples.
6. Write three term labels for / k/ and /s/.
7. Write plural allomorphs of 'match' and 'boat'.
8. Mention the nasal sounds of English with examples.
9. Distinguish between phonetics and phonology.
10. Transcribe the words 'sheep' and 'prove.' In IPA.
11. Illustrate the past-tense allomorphs of English with examples.
12. Mention any TWO back vowels of English. Give an example each.

Contd...2

III. Transcribe the following from IPA to Normal orthography. 20X½=10

- | | |
|--------------|--------------|
| 1. /əksept/ | 11. /θʌm/ |
| 2. /ɑ:tɪst/ | 12. /trezə/ |
| 3. /əʒeə/ | 13. /lɪzəd/ |
| 4. /mæʃɪn/ | 14. /rɪ:zən/ |
| 5. /hænsəm/ | 15. /əʊpən/ |
| 6. /kəriə/ | 16. /lɑ:tə/ |
| 7. /ʔeɪljə/ | 17. /sɜ:tən/ |
| 8. /prəʊz/ | 18. /bʊfɪz/ |
| 9. /pʊft/ | 19. /mɪʒɪəm/ |
| 10. /ælədʒɪ/ | 20. /ka:sl/ |

IV. Transcribe the following from Normal orthography to IPA 20X½=10

- | | |
|------------|-------------|
| 1. Bitter | 11. Escape |
| 2. Jury | 12. Freedom |
| 3. Lunch | 13. Disease |
| 4. Hurt | 14. Debris |
| 5. Hotel | 15. Code |
| 6. Chef | 16. Ocean |
| 7. Change | 17. Occur |
| 8. Action | 18. Clerk |
| 9. April | 19. Compose |
| 10. Career | 20. Society |

(2021 batch onwards)

G 108 OE1.3

Reg. No.:

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St Aloysius College (Autonomous)
Mangaluru
BA Semester III – Degree Examination
December - 2022
English Major (Open Elective)

Phonetics of English Language

Time: 2½ hrs.

Max Marks: 60

- I. Answer any FOUR of the following in about 100 to 150 words (4x5=20)**
1. Draw a neat diagram of the Vowels and indicate the positions of the 12 pure vowels / monophthongs of English. Illustrate each one of them with TWO examples each.
 2. Draw a diagram of the human organs of speech and indicate the positions of the major articulators.
 3. Which are the Fricatives and Plosives of English. Illustrate them with an example each.
 4. Explain Labiodental and Velar sounds. Illustrate them with an example each.
 5. Describe 'consonants.' Write the three-term-labels of any 08 consonants.
- II. Answer any TEN of the following in about 2-3 sentences each (10X2=20)**
1. Illustrate the dental fricatives of English with an example each.
 2. Expand IPA and RP.
 3. List the Palato-Alveolar sounds of English. Give an example each.
 4. Identify the Diphthongs in the words, 'rose' and 'house.'
 5. Mention any four Diphthongs with examples.
 6. Write three term labels for / k/ and /s/.
 7. Write plural allomorphs of 'match' and 'boat'.
 8. Mention the nasal sounds of English with examples.
 9. Distinguish between phonetics and phonology.
 10. Transcribe the words 'sheep' and 'prove.' In IPA.
 11. Illustrate the past-tense allomorphs of English with examples.
 12. Mention any TWO back vowels of English. Give an example each.

Contd...2

III. Transcribe the following from IPA to Normal orthography. 20X½=10

- | | |
|--------------|----------------|
| 1. /əksept/ | 11. /θʌm/ |
| 2. /ɑ:tɪst/ | 12. /trezə/ |
| 3. /əfeɪ/ | 13. /lɪzəd/ |
| 4. /məʃi:n/ | 14. /ri:zən/ |
| 5. /hænsəm/ | 15. /əʊpən/ |
| 6. /kəriə/ | 16. /lə:ftə/ |
| 7. /feɪljə/ | 17. /sɜ:tən/ |
| 8. /prəʊz/ | 18. /bʊfɪz/ |
| 9. /pʊft/ | 19. /mju:ziəm/ |
| 10. /ælədʒɪ/ | 20. /ka:sl/ |

IV. Transcribe the following from Normal orthography to IPA 20X½=10

- | | |
|------------|-------------|
| 1. Bitter | 11. Escape |
| 2. Jury | 12. Freedom |
| 3. Lunch | 13. Disease |
| 4. Hurt | 14. Debris |
| 5. Hotel | 15. Code |
| 6. Chef | 16. Ocean |
| 7. Change | 17. Occur |
| 8. Action | 18. Clerk |
| 9. April | 19. Compose |
| 10. Career | 20. Society |

(2021 batch onwards)

G 109 OE1.3

Reg. No.

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St Aloysius College (Autonomous)

Mangaluru

B.A. Semester III – Degree Examination

December - 2022

Communicative English (Open Elective)
Developing Professional Competency

Time: 2½ hrs.

Max Marks: 60

UNIT – I

I. A. Answer any TWO of the following questions in about 150 words.

(2x5=10)

1. Write a note on 'Descriptive Essays'.
2. Write a note on 'Argumentative Essays'.
3. How to write a human-interest story? Explain with suitable examples.

**B. Write a 'Narrative Essay' in about 350 words on the topic
'Your First Day at New School'.**

(1x10=10)

C. Complete the following story outline creatively.

(1X5=5)

Son falls into bad company - disobeys his parents - loses interest in studies - father decides to bring the son back to the right path - gives him a few apples - places a rotten apple among the good ones - after a few days the good apples also become rotten - son understands that one rotten apple spoils all the apples - tries to mend his ways - gets transformed.

UNIT – II

II. A. Answer any TWO of the following questions in about 150 words.

(2X5=10)

1. What are the additional tips to be followed in resume writing? Provide examples to justify your answer.
2. What are the various types of features?
3. Distinguish between group discussion and debate.

B. Write a resume in response to the following job opening: (1X10=10)

1. Post: Assistant Professor (Mathematics)
Institution: The Knowledge Foundation
Qualification: M.Sc. Mathematics, PhD
Create a resume for the above post.

C. Self-Introduction

(1x5=5)

1. On the occasion of Fresher's Day at your college, make a self-introduction addressing the freshers as a senior student of the college.

UNIT – III

III. Answer any TWO of the following questions in about 150 words:

(2x5=10)

1. What is the importance of presentation skills?
2. Write a note on 'Preparing a Presentation' as a part of the stages of presentation.
3. Write a note on 'Rehearsing the Presentation' as a part of the stages of presentation.

G 310 OE1.3

Reg. No.

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**St Aloysius College (Autonomous)
Mangaluru**

B.Com. Semester III – Degree Examination

December - 2022

OPEN ELECTIVE

ENTREPRENEURIAL SKILLS

Time: 2½ Hours

Max Marks: 60

SECTION – A

Answer any FIVE of the following.

(5x2=10)

1. Define Entrepreneur.
2. Mention any two sources of generating New Ideas for business.
3. State any two reasons of an Entrepreneur for Exiting his/her venture.
4. Bring out any two limitations of Venture Capital.
5. What is Export Oriented Unit?
6. State any two qualities of a Successful Entrepreneur.
7. Bring out any two issues faced by an Entrepreneur in expanding the business.

SECTION - B

Answer any FOUR of the following.

(4x5=20)

8. Explain the Challenges faced by Women Entrepreneurs.
9. Explain the steps involved in starting a Small Business Venture.
10. Explain the different Growth Strategies followed by the Business Organizations.
11. Explain in brief the various internal sources of finance utilized by an entrepreneur in the business.
12. Write a note on Atal Innovation Mission and ASPIRE (Scheme).
13. Write a note on any two Financial Institutions which support the Entrepreneurs in the Entrepreneurial Activities.

SECTION – C

Answer any TWO of the following.

(2x15=30)

14. Define Entrepreneurship. Explain the types of Entrepreneurship.
15. What is business plan? Explain the Contents of Business Plan.
16. Explain the role of Central Government and State Government in promoting Entrepreneurship.

G 320 OE1.3

Reg. No. :

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St Aloysius College (Autonomous)

Mangaluru

B.Com. (INTERNATIONAL FINANCE) Semester III – Degree Examination

December - 2022

OPEN ELECTIVE

GOVERNANCE, RISKS AND ETHICS

Time: 2¹/₂ Hours

Max Marks: 60

SECTION – A

Answer any FIVE of the following.

(5x2=10)

1. State any two objectives of Corporate Governance.
2. Write any two content of the OECD principle.
3. Define Corporate Social Responsibility.
4. State any two limitations of internal control system.
5. What is Familiarity Threat?
6. Briefly consider whether it is always a good business strategy for a listed company to diversify to reduce risk.
7. What is Corruption?

SECTION - B

Answer any FOUR of the following.

(4x5=20)

8. Explain the External Stakeholder's role interest and claims in an organisation.
9. Discuss the arguments in favour and against rule and principle based approach.
10. Explain the kinds of Board Structure and its merits and demerits.
11. Write the differences between Annual General Meeting and Extraordinary General Meeting.
12. Explain the various risks that affect a business.
13. Explain your response to the following ethical threats.
 - A) Your employer asks you to suggest to a junior manager that they will receive a large bonus for working overtime on a project to hide liabilities from the financial statements.
 - B) In selecting employees for a new division, you are advised to unfairly discriminate against one section of the workforce.
 - C) You have been asked to prepare the management accounts for a subsidiary located in South America in accordance with specific requirements of that jurisdiction. In response to your comment that you do not understand the accounting requirements of that jurisdiction, your supervisor states 'no problem, no one will notice a few thousand dollars 'error anyway'.

Contd...2

SECTION – C**Answer any TWO of the following.****(2x15=30)**

14. What is Induction and Continuing Professional Development (CPD)? Explain the execution of Induction and Continuing Professional Development (CPD) of directors on board.
15. Define Integrated Reporting. Explain the guiding principles and the six capitals of an Integrated Report.
16. The TGB Company runs sporting events such as tennis tournaments and downhill skiing events in various countries. The company has been fairly successful in the past in running events that attract a significant number of customers, and in the last 10 years TGB has always made a profit. The board of TGB are now considering a number of sporting events for the next financial year.
 - A repeat of this year's successful two-week long outdoor tennis tournament at a time of year when there is a 10% probability of rain on any given day. If it rains, customers are allowed access to the tournament on the following day. However, if there is rain on two consecutive days, tickets for those days are declared void and cannot be used.
 - A new proposal to hold curling championships in 25 different countries in one year. (Curling is a sport played on ice where football sized stones are slid across the ice with the aim of stopping them as close as possible to a target on the ice). Organisation of the championships will mean TGB either has to hire additional staff or run fewer sporting events in other sports. Demand for the curling championships is high in colder countries, but unclear in warmer countries where the sport has never been played.
 - A new proposal to hold motor bike racing on the streets of a major European city. The city would effectively be closed to other traffic for a week with races taking place on normal public roads. There is a probability of 95% that at least one rider will be killed during the week and an 85% probability of serious injury to more than 10 spectators and the result of a crash. TGB's insurers have indicated that they would not be prepared to insure this event. However, TGB's financial accountant indicates that the event would be highly profitable.
 - A repeat of a successful skiing championship in the Alps. The championship has been run for the last 25 years and is always well attended. However, analysts indicate that due to global warming there is a remote possibility that the Alps will not receive sufficient snow and the championship will not be able to go ahead. The board consider this risk to be so remote that it is not worth worrying about.

Required:

(a) Using the risk management model of TARA, explain the elements of the model and discuss how the TGB Company should manage risks for each of its proposed sporting events.

(b) Compare and contrast the roles of the risk manager and the risk committee.

G 340 OE1.3

(2021 Batch Onwards)

Reg. No. :

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St Aloysius College (Autonomous)
Mangaluru
Semester III- Degree Examination
December - 2022
B.Com. (Accounting and Tax)- OPEN ELECTIVE
CORPORATE LAW

Time: 2½ hours

Max Marks: 60

SECTION - A

Answer any FIVE of the following. (5x2=10)

1. Define key managerial personnel as per The Companies Act 2013.
2. Mention the sources for payment of dividend.
3. Define charges as per The Companies Act, 2013.
4. Define deposits.
5. State the applicability of internal audit.
6. Define prospectus.
7. List out the exceptions for default in non payment of dividend under The Companies Act, 2013.

SECTION - B

Answer any FOUR of the following. (4x5=20)

8. Explain relevant provisions for issue of shares with different rights.
9. List out all the items that has to be credited to the Investor Education and Protection Fund.
10. Explain provisions of private placement as per section 42
11. Explain shelf prospectus, red-herring prospectus and deemed prospectus.
12. A company has accumulated free reserves of Rs 75 lakhs during the last 5 years. It has not declared any dividend during these years. Now, the company proposes to declare a dividend out of their current year profits of Rs 12 lakhs. The board proposes a payment dividend amount of Rs 30 lakhs i.e., 30% of paid up capital. Examine as per the provisions of the Companies Act, 2013, whether the proposal is valid?
13. Explain civil liability and criminal liability.

SECTION - C

Answer any TWO of the following. (2x15=30)

14. Explain registered office with relevant provisions for shifting the registered office from one jurisdiction to another and from one state to another.
15. Explain the procedure of appointment of auditors (both first and subsequent auditors of government & non government company)
16. Define deposits and list out all the amounts that does will not be considered as deposits.

G 401 OE3.3

Reg. No. :

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St Aloysius College (Autonomous)

Mangaluru

Semester III- Degree Examination

December - 2022

B.B.A. – OPEN ELECTIVE

MONEY AND PUBLIC FINANCE

Time: 2½Hours

Max Marks: 60

PART – A

Answer any FIVE of the following.

(5x2=10)

1. What do you mean by public expenditure?
2. What are the types of Taxable capacity?
3. What is Value of money?
4. What do you mean by Taxable Capacity?
5. Distinguish between Redeemable and Irredeemable debt?
6. What is the formula for high powered money?
7. What is Public Revenue?
8. What do you mean by Fiscal Policy?

PART - B

Answer any FOUR of the following.

(4x5=20)

9. Explain the functions of Money.
10. Distinguish between Public Finance and Private Finance.
11. Explain the various measures of money supply used by RBI.
12. What are the factors influencing Taxable Capacity?
13. Briefly explain different types of public expenditure.
14. What is GST? What are the types of GST?

PART – C

Answer any TWO of the following.

(2x15=30)

15. Explain the Various Sources of Public Revenue.
16. Explain the merits and demerits of Direct and Indirect taxes.
17. State and explain Fisher's equation of exchange. What are its criticisms?
18. What is Public Debt? Briefly explain the methods of public debt redemption.

(2021 Batch Onwards)

G 501 OE1.3

Reg. No. :

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St Aloysius College (Autonomous)
Mangaluru
B.Sc. Semester III – Degree Examination
December - 2022
PHYSICS – OPEN ELECTIVE
FUNDAMENTALS OF OPTICS AND ELECTRICITY

Time: 2½ hrs.

Max Marks: 60

SECTION – A

Answer any **FOUR** of the following.

(4x2=8)

1. a) What is dispersion of light?
- b) What is the value of velocity of light in air or vacuum in m/s?
- c) What is an optic fibre?
- d) Give the lens maker's formula.
- e) What is a capacitor? Mention the S.I unit for capacitance.
- f) Mention two advantages of DC over AC.

SECTION – B

Answer any **ONE FULL QUESTION** from each unit.

(4x10=40)

UNIT-I

- 2.a) What are the different properties of light? (6)
- b) What is refractive index? Explain. (4)
- 3.a) Write a short note on total internal reflection. (6)
- b) What are the applications of mirrors? (4)

UNIT-II

- 4.a) For an optic fibre, explain the following terms: (6)
i) critical angle ii) numerical Aperture iii) fractional refractive index
- b) What are the types of optic fibres based on their refractive indices? Explain. (4)
- 5.a) Explain fibre optic communication. (6)
- b) What are the applications of optic fibres? (4)

UNIT-III

- 6.a) Explain the formation of images in a human eye with a neat labelled diagram. (6)
- b) Name the two types of lenses. What are their applications? (4)
- 7.a) Explain the working of a camera with a neat labelled diagram. (6)
- b) Explain the working of a telescope with a neat labelled diagram. (4)

UNIT-IV

- 8.a) With neat labelled diagram explain the working of a parallel plate capacitor. (6)
- b) Explain the advantages of 3 phase AC over single phase AC. (4)

Contd...2

- 9.a) Draw a labelled diagram and explain the working of Electrical Iron Box. (6)
b) What are the advantages of a fluorescent lamp over a filament bulb? (4)

SECTION -C

Answer any THREE from the following. (3x4=12)

10. A 3 cm tall object is placed perpendicular to the principal axis of a convex lens of focal length 8 cm. The distance of the object from the lens is 15 cm. Find the nature, position and size of the image.
11. An object is placed perpendicular to the principal axis of a convex lens and is placed 15 cm away from it. If the image is formed at a distance of 30 cm from the lens, calculate the power of the lens.
12. Calculate the current drawn by an Air Conditioner which operates in single phase at 1200 watt with a power factor of 0.9.
13. If the plate separation for a capacitor is 2.0×10^{-3} m, determine the area of plates if the capacitance is exactly 1nF.

(2021 Batch onwards)

G 502 OE1.3

Reg. No.:

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St Aloysius College (Autonomous)

Mangaluru

B.Sc. Semester III – Degree Examination

December - 2022

CHEMISTRY - OPEN ELECTIVE

STRUCTURE, BONDING AND CONCEPTS IN ORGANIC CHEMISTRY

Time: 2½ hrs.

Max Marks: 60

Instructions: 1. Write the question number and subdivision clearly.

2. Write equations and diagrams wherever necessary.

3. Answer Part – A in first two pages of the answer book.

PART - A

Answer any **EIGHT** of the following in 1 to 2 sentences. (1×8=8)

1. a) What is subshell?
- b) State Pauli's exclusion principle.
- c) Write the electronic configuration of P. (Atomic no - 15)
- d) What is the role of KOH solution in Liebig's method?
- e) In the Lassaigne's test for nitrogen what is the bluish green colour due to?
- f) Write the IUPAC names of the following compounds.
 - a) $\text{HO}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{COOH}$
 - b) $\text{H}_3\text{C}-\text{CH}_2-\underset{\text{OH}}{\text{CH}}-\text{CH}_2-\text{CH}_2-\underset{\text{CH}_3}{\text{CH}}-\text{CH}_2-\text{CH}_3$
- g) Give the significance of double headed straight arrow.
- h) What are electrophiles? Give an example.
- i) Give the order of stability of primary, secondary and tertiary carbanions.

PART - B

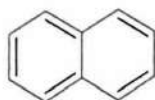
Answer any **EIGHT** of the following in 3 to 5 sentences. (3×8=24)

- 2.(i) What do you mean by isotopes and isobars? Give an example each.
- (ii) Explain the stability of completely filled orbitals.
- (iii) State Heisenberg's uncertainty principle and derive its equation.
- (iv) Explain the hybridization in methane.
- (v) Differentiate between qualitative and quantitative analysis.
- (vi) Explain the classification of organic compounds.
- (vii) What are free radicals? Mention the types and give their order of stability.
- (viii) Predict aromatic/antiaromatic character of the following compounds:

a)



b)



c)



- (ix) With one example each explain substitution and addition reactions.

Contd...2

PART - C

Answer any **SEVEN** of the following questions.

(4×7= 28)

3. Derive De Broglie's equation.
4. Explain the hydrogen spectrum using Bohr's atomic model.
5. State Aufbau principle and give its limitations.
6. Describe the principle and calculation involved in the estimation of halogens in an organic compound by Carius method.
7. A 2.0714 g sample containing carbon, hydrogen and oxygen was burned in a combustion analysis apparatus. 1.928 g of H₂O and 4.709 g of CO₂ were produced. Calculate the percentages of C, H and O in the sample.
8. Briefly explain the procedure to detect halogen using sodium fusion extract.
9. Explain why secondary carbocations are more stable than primary carbocations based on hyperconjugation effect.
10. What are carbenes? How are they classified?

(2021 Batch onwards)

G 503 OE1.3

Reg. No.

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St Aloysius College (Autonomous)
Mangalore

B.Sc. Semester III - Degree Examination

December - 2022

MATHEMATICS (OPEN ELECTIVE)
Ordinary Differential Equations

Time: $2\frac{1}{2}$ hrs.

Max Marks: 60

PART-A

Answer any **NINE** of the following:

(9x2=18)

1. Find the degree and order of the differential equation

$$\left(\frac{d^2y}{dx^2}\right)^2 + \left(\frac{dy}{dx}\right)^3 = 1.$$

2. Solve: $\frac{1}{\sqrt{1-x^2}} dx + \frac{1}{\sqrt{1-y^2}} dy = 0.$

3. Show that the differential equation $xydx + (x^2 - xy + y^2)dy = 0$ is homogenous.

4. Verify whether the differential equation $(y^2 - 2xy + 6x)dx - (x^2 - 2xy + 2)dy = 0$ satisfies the condition of exactness.

5. Find an integrating factor of $3(x^2 + y^2)dx + x(x^2 + 3y^2 + 6y)dy = 0.$

6. Find an integrating factor of $(x^2 + y^2 + x)dx + xydy = 0.$

7. Rewrite $2y(y^2 - x)dy = dx$ as a linear differential equation.

8. Find the substitution 'z' for the Bernoulli equation

$$y(6y^2 - x - 1)dx + 2xdy = 0.$$

9. Find the complementary function of $(D^2 - 7D + 24)y = 0.$

10. Determine the general solution of $(D^2 - 1)y = 3e^{2x}.$

11. Find particular integral of $(D^2 - 1)y = 5x - 2.$

12. Find the complementary function of $(x^2D^2 + xD + 1)y = 0.$

PART-B

UNIT I

Answer any **TWO** of the following:

(2x7=14)

1. a) Solve: $\frac{dy}{dx} = e^{2x-y} + x^2e^{-y}.$

(3½)

b) Solve: $\tan y \sec^2 x dx + \tan x \sec^2 y dy = 0.$

(3½)

2. Solve: $xydx - (x^2 + 3y^2)dy = 0.$

Contd....2

3. a) Solve: $(2x^3 - xy^2 - 2y + 3)dx - (x^2y + 2x)dy = 0$. (3½)
 b) Solve: $(x + y)dx + (x - y)dy = 0$. (3½)

UNIT II**Answer any TWO of the following:****(2x7=14)**

1. a) Solve: $y(2xy + 1)dx - xdy = 0$. (3½)
 b) Solve: $y(x^4 - y^2)dx + x(x^4 + y^2)dy = 0$. (3½)
2. Solve: $xydx - (x^2 + 2y^2)dy = 0$.
3. Solve: $2(y - 4x^2)dx + xdy = 0$.

UNIT III**Answer any TWO of the following:****(2x7=14)**

1. a) Solve: $(D^2 - 3D + 2)y = e^{4x}$. (4)
 b) Find the particular integral of $(D^2 - 16)y = \cos 4x$. (3)
2. Solve: $(D^4 + 4D^2)y = x^2 + x + 1$.
3. a) Find the particular integral of $(D^2 + 2D)y = e^{2x}x^2$. (4)
 b) Solve: $(x^3D^3 + 3x^2D^2 - 2xD + 2)y = 0$. (3)

(2021 Batch Onwards)

G 505 OE1.3

Reg. No.:

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St Aloysius College (Autonomous)

Mangaluru

B.Sc. Semester III – Degree Examination

December - 2022

COMPUTER SCIENCE (OPEN ELECTIVE)

INTERNET OF THINGS(IoT)

Time: 2½Hours.

Max Marks: 60

PART – A

1. **Answer any SIX of the following.** (6x2=12)
- a) How do you explain IoT?
 - b) What do you understand by a "Thing" in the IoT?
 - c) What is the IoT Cloud?
 - d) What is ZigBee protocol?
 - e) What are mostly used IoT protocols?
 - f) What is the syntax to read analog and digital data from a sensor in Arduino?
 - g) Name some of the sectors where IOT play a major role.
 - h) What impacts will the Internet of Things (IoT) have on the Agriculture Sector?

PART – B

Answer any ONE FULL question from each unit 12 marks each.

(4x12=48)

UNIT – I

- 2. a) With a neat diagram explain IoT architecture. (8)
- b) Write a note on challenges of IOT. (4)
- 3. a) What are the important components of the Internet of Things? Explain. (6)
- b) Explain the characteristics of IoT. (6)

UNIT – II

- 4. a) How IPV6 affect the development and implementation of IoT. (6)
- b) Mention the difference Between The Internet of Things (IoT) And Machine To Machine (m2m)? (6)
- 5. a) Why do IOT systems have to be self-adapting and self-configuring? (6)
- b) What are the disadvantages of IoT? (3)
- c) What does WSN represent in the Internet of Things idea? (3)

UNIT – III

- 6. a) What do you mean by IoT Gateway? What is the role of a gateway in IoT? (6)
- b) What is the use of Sensors in IOT? Give example. (4)
- c) What is MQTT? (2)
- 7. a) List layers of IoT protocol stack. (6)
- b) How wireless Communications may affect the development and implementation of the internet of things (IoT). (6)

UNIT – IV

- 8. a) Explain applications of IOT in different fields. (8)
- b) What is the scope of IOT devices in the future? (4)
- 9. a) What are the distinctive parts where the Internet of Things can really enhance the present procedures? (8)
- b) How does IoT influence the development of smart cities? (4)

(2021 Batch Onwards)

G 506 OE1.3

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St Aloysius College (Autonomous)

Mangaluru

B.Sc. - Semester III

December - 2022

**STATISTICS - OPEN ELECTIVE
BIOSTATISTICS**

Time: 2 1/2 Hours.

Max Marks: 60

Note: Answer all parts

Note: Chi square and F table will be provided.

PART - A

I. Answer any FIVE of the following:

(2x5=10)

1. State any two applications of Bio Statistics.
2. Define Classification.
3. State the difference between Nominal and Ordinal data.
4. Define Parameter and Statistic.
5. State any two applications of Chi square distribution.
6. State Gauss Markov theorem.
7. What do you mean by Uniform trials?

PART - B

II. Answer any FIVE of the following.

(6x5=30)

8. State the difference between Statistics and Bio Statistics.
9. Explain the types of classification of data with example.
10. Two pharmacy companies advertised for vacancies in their companies. They received many applications. The data was as follows.
Company A received 1000 applications. Among the applicants, 480 were married, out of whom 360 had experience. 400 unmarried persons had no experience.
Company B received applications from 450 persons who were all experienced. One third of them were married.
Among the other in experienced applicants Company B received, 300 were married and 280 were unmarried. Tabulate the above information.
11. Derive mean and variance of Chi square distribution.
12. The number of yeast-cells in 400 squares of a haemocytometer (equipment for counting component cells of blood) were counted and a frequency distribution is formed. Assuming Poisson distribution, after estimating the mean, theoretical frequencies are also found. The observed and theoretical frequencies are as follows. Test whether Poisson distribution is a good fit.

Yeast cells	0	1	2	3	4	5	6	7	8
Squares (Observed)	75	103	121	54	30	13	2	0	2
Squares (Expected)	66	119	107	64	29	10	3	1	1

Contd...2

13. Two random samples are drawn from normal populations. Test whether two population have same variance.

Sample I	13	16	19	21	14	11	13
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Sample II	16	13	14	16	18	15
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14. Three types of coal were analyzed by the chemist and the ash content in these types were found as given below:

Types of coal		
A	B	C
13	16	5
22	24	4
18	17	1
39	44	2

Do the different types of coal differ significantly in their ash content?

PART – C

III. Answer any TWO of the following.

(10x2=20)

15. Derive the mean and variance of F distribution.
16. The following data on vaccination were collected in a hospital to find out whether vaccination reduces the severity of any actual attack of smallpox.

Vaccination	Severity		
	Very Severe	Severe	Mild
Vaccinated within 10 years of attack	10	150	240
Never Vaccinated	60	30	10

17. A randomised block design experiment produced the following data. Carry out the ANOVA for this RBD and comment on your findings.

Blocks	Treatments		
	1	2	3
A	10.1	12.2	11.9
B	11.4	12.9	12.7
C	9.9	12.3	11.4
D	12.1	13.4	12.9

(2021 Batch Onwards)

G 507 OE1.3

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St Aloysius College (Autonomous)

Mangaluru

B.Sc. Semester III – Degree Examination

December - 2022

BOTANY - OPEN ELECTIVE

MEDICINAL AND AROMATIC PLANTS

Time: 2½ Hours.

Max Marks: 60

Note: i) Answer all the sections.

ii) Draw diagrams wherever necessary.

SECTION – A

I Answer any FIVE of the following.

(5X2=10)

- 1) What are protected areas?
- 2) Write the family name and Therapeutic uses of *Holigarna ferruginea*.
- 3) What is the active principle present in *Withania somnifera*?
- 4) What are Alkaloids?
- 5) Write the family name and part used of *Indigofera tinctoria* and *Mimosa pudica*.
- 6) Which part of cinnamon and nutmeg are used as spice?
- 7) Mention any two significance of Ayurveda.
- 8) How *Vanilla planifolia* is useful for mankind?

SECTION – B

II Answer any SIX of the following.

(6x5=30)

- 1) Explain the importance of Siddha as Indigenous Medicinal Science.
- 2) Write a note on Trademarks.
- 3) What are the objectives and functions of State Medicinal Plant Boards?
- 4) Explain how *Eucalyptus* and *Ocimum* are used in Flavouring and Perfume industries.
- 5) Explain the significance of *Plumbago indica* and *Terminalia arjuna* in ethnobotanical practices.
- 6) Give the systematics, geographical distribution and uses of any two aromatic plants of India.
- 7) How the Intellectual Property Rights are related to traditional knowledge and culture?
- 8) Write the taxonomic descriptions and uses of *Citronella* and *Geranium*.

SECTION – C

III Answer any TWO of the following.

(2x10=20)

- 1) Explain the role of ethnobotany in modern medicine.
- 2) Give an overview of phytochemical screening of herbal drugs.
- 3) Write explanatory note on Aromatic spices.
- 4) Give a detailed account of history of medicinal plants.

(2021 Batch onwards)

G 5080E1.3

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**St Aloysius College (Autonomous)
Mangaluru**

**B.Sc. Semester III- Degree Examination
December - 2022**

**ZOOLOGY (OPEN ELECTIVE)
ENDOCRINOLOGY**

Time: 2½ Hours

Max. Marks: 60

Note:

1. Answer any **ten** questions from Part -A, any **four** questions from Part- B and any **two** questions from part-C.
2. Draw diagrams wherever necessary.

PART-A

I. Answer any TEN of the following (2x10=20)

1. Define the term 'hormone'?
2. What are the four principal hormone secreted by the ovary.
3. Enumerate any four types of pituitary disorders.
4. Which is the most common endocrine disorder?
5. What is genetic control of hormone action?
6. Where is the hypothalamo-hypophyseal portal system located?
7. What is the function of the parathyroid gland?
8. Which hormones does the pancreas gland secrete?
9. Why pituitary gland is called master gland?
10. What are three main daily functions of the hypothalamus?
11. Write one function of neuroendocrine cells of the lung and gut.
12. Give two characteristics of hormones and neurotransmitters?

PART- B

II. Answer any FOUR of the following (5X4=20)

1. What is the classification of hormones based on the chemical structure?
2. What is the feedback mechanisms of hormone regulation in the endocrine system?
3. Write a note on hypothalamus and its functions.
4. Draw a neat labelled diagram of T S of ovary.
5. Write a note on molecular mediators of hormone action.
6. Explain the functions of adenohypophysis.

PART -C

III. Answer any TWO of the following (10X2=20)

1. Give an overview of concept of Neurosecretion.
2. Explain the structure of pineal gland, secretions and their functions in biological rhythms and reproduction.
3. Explain the regulation of thyroid gland hormones in homeostasis.
4. What is hormone action at cellular level?

G 510 OE1.3

(2021 Batch onwards)

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**St Aloysius College (Autonomous)
Mangaluru**

**B.Sc. Semester III – Degree Examination
December - 2022**

**BIOCHEMISTRY - OPEN ELECTIVE
BIOCHEMICAL TECHNIQUES**

Time: 2½ Hours

Max. Marks: 60

- Note: i) Answer all the questions
ii) Draw diagrams wherever necessary

PART – A

1. Answer any **TEN** of the following. (2×10=20)
- How is TLC superior to paper chromatography?
 - Define retention time.
 - Name any two cation exchange resins.
 - Write the principle of HPLC.
 - Give two examples for liquid-liquid chromatography.
 - What is the principle behind Electrophoresis.
 - Mention the applications of 2D- Electrophoresis.
 - What is IR active compound? Give example.
 - Enlist the factors affecting the mobility of ions in an electric field.
 - What are the ranges of wavelength of UV Light and visible light?
 - State Beer–Lambert’s Law.
 - Write the principle of IR spectroscopy.

PART – B

- Answer any **EIGHT** of the following. (5×8=40)
- Explain the principle and method of separation of amino acids by Paper Chromatography.
 - Discuss on technique and applications of Affinity Chromatography.
 - Elaborate on Gas Liquid Chromatography.
 - Explain how SDS-PAGE is performed?
 - Write short note on Paper Electrophoresis.
 - Explain the working principle & applications of Zone Electrophoresis.
 - What do you mean by X-Ray diffraction? Explain in detail.
 - Describe the instrumentation & operation of Fluorimeter.
 - Highlight the applications of NMR Spectroscopy.
 - Outline the principle and instrumentation of Mass Spectroscopy.

(2021 batch onwards)

G 601 OE1.3

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**St Aloysius College (Autonomous)
Mangaluru**

B.C.A. Semester III – Degree Examination

December - 2022

B.C.A. - OPEN ELECTIVE

COMPUTER ORIENTED NUMERICAL ANALYSIS

Time: 2½hrs.

Max Marks: 60

PART – A

Answer any SIX of the following.

(6x2=12)

1. a) Given Matrix $A = \begin{bmatrix} 1 & -2 \\ 3 & 5 \end{bmatrix}$ find A^2 .
- b) Explain singular matrix with an example.
- c) Define Interpolation.
- d) If ∇ is the backward difference operator, then find $\nabla^4 y_1$.
- e) State Newton's Backward Difference interpolation formula.
- f) Define divided difference for $[x_0, x_1, x_2]$.
- g) Write the formula for Simpson's 3/8th Rule.
- h) Write the general formula for numerical integration.

PART – B

Answer any ONE FULL question from each unit.

(12x4=48)

UNIT – I

2. a) Solve the following using Cramer's Rule.

$$10x + y + z = 12$$

$$2x + 10y + z = 13$$

$$x + y + 3z = 5$$

(6)

- b) Solve the following using Gauss-Jordan method.

$$4x + 3y - z = 6$$

$$3x + 5y + 3z = 4$$

$$x + y + z = 1$$

(6)

OR

3. a) Explain the steps involved in LU decomposition method.

(6)

- b) Use Gauss elimination to solve the system of equations.

$$2x + y + z = 10$$

$$3x + 2y + 3z = 18$$

$$x + 4y + 9z = 16$$

(6)

Contd...2

UNIT - II

4. a) Solve the system using Jacobi method (carry out 5 iterations).

$$6x + y + z = 20$$

$$x + 4y - z = 6$$

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

(6)

- b) Find the polynomial equation which takes the following values $y(0)=1$, $y(1)=0$, $y(2)=1$, $y(3)=10$ and also obtain $y(4)$.

(6)

OR

5. a) Derive Newton's forward difference formula for interpolation.

(6)

- b) Using Lagrange's Interpolation formula, find $f(301)$.

x	300	304	305	307
f(x)	2.4771	2.4829	2.4843	2.4871

(6)

UNIT - III

6. a) From the following table of values of x and y obtain dy/dx and d^2y/dx^2 for $x=1.6$.

x	1.0	1.2	1.4	1.6	1.8	2.0	2.2
y	2.7183	3.3201	4.0552	4.9530	6.0496	7.3891	9.0250

(6)

- b) Derive numerical differentiation formula using Newton's forward difference interpolation formula

(6)

OR

7. a) Using divided difference interpolation formula, find $f(x)$ as a polynomial in x.

x	-1	0	3	6	7
f(x)	3	-6	39	822	1611

(6)

- b) Derive numerical differentiation formula using Newton's backward difference interpolation formula.

(6)

UNIT - IV

8. a) Derive Trapezoidal rule to evaluate $\int f(x) dx$.

(6)

- b) Evaluate $I = \int_0^1 \cos x dx$ using Simpson's $3/8^{\text{th}}$ rule when $h=0.2$.

(6)

OR

9. a) Evaluate $I = \int_0^1 \frac{1}{(1+x)} dx$ correct to three decimal places using Trapezoidal rule.

(6)

- b) Derive Simpson's $1/3^{\text{rd}}$ Rule. Give the error term.

(6)
