

(2021 Batch onwards)

G 101 OE1.2

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**St Aloysius College (Autonomous)  
Mangaluru**

**B.A. Semester II – Degree Examination**

**May/June - 2023**

**HISTORY (OPEN ELECTIVE)**

**CULTURAL HISTORY OF KARNATAKA  
(CE 11-CE 1750) Part - 2**

**Time: 2½ hrs.**

**Max Marks: 60**

**I Answer any TWO of the following in 3 pages each.**

**(15x2=30)**

ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಎರಡು ಪ್ರಶ್ನೆಗಳಿಗೆ ಮೂರು ಪುಟದಷ್ಟು ಉತ್ತರಿಸಿ.

1. Explain the administrative system of the Vijayanagara period.  
ವಿಜಯನಗರ ಸಾಮ್ರಾಜ್ಯದ ಆಡಳಿತ ವ್ಯವಸ್ಥೆಯನ್ನು ವಿವರಿಸಿ.
2. Trace the development of Agrarian system of Karnataka during the Medieval period.  
ಮಧ್ಯಯುಗೀನ ಕರ್ನಾಟಕದ ಕೃಷಿ ಪದ್ಧತಿಯ ಬೆಳವಣಿಗೆಯನ್ನು ನಿರೂಪಿಸಿ.
3. Discuss the social conditions of Medieval Karnataka.  
ಮಧ್ಯಯುಗೀನ ಕರ್ನಾಟಕದ ಸಾಮಾಜಿಕ ಪರಿಸ್ಥಿತಿಯನ್ನು ಚರ್ಚಿಸಿ.

**II Answer any THREE of the following in a page each.**

**(3x5=15)**

ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಮೂರು ಪ್ರಶ್ನೆಗಳಿಗೆ ಒಂದು ಪುಟದಷ್ಟು ಉತ್ತರಿಸಿ.

1. Discuss the role of trade guilds in Medieval Karnataka.  
ಮಧ್ಯಯುಗೀನ ಕರ್ನಾಟಕದಲ್ಲಿ ವ್ಯಾಪಾರಿ ಸಂಘಗಳ ಪಾತ್ರವನ್ನು ಚರ್ಚಿಸಿ.
2. Briefly explain the features of Hoysala architecture.  
ಹೊಯ್ಸಳ ವಾಸ್ತುಶಿಲ್ಪದ ಲಕ್ಷಣಗಳನ್ನು ಸಂಕ್ಷಿಪ್ತವಾಗಿ ವಿವರಿಸಿ.
3. Write a note on Dasa Literature.  
ದಾಸ ಸಾಹಿತ್ಯದ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
4. Write a note on the teachings of Shankaracharya.  
ಶಂಕರಾಚಾರ್ಯರ ಬೋಧನೆಗಳ ಕುರಿತು ಬರೆಯಿರಿ.
5. Trace the position of women in Medieval Karnataka.  
ಮಧ್ಯಯುಗೀನ ಕರ್ನಾಟಕದ ಮಹಿಳೆಯರ ಸ್ಥಾನಮಾನವನ್ನು ನಿರೂಪಿಸಿ.

**III. Answer the following in 3-5 sentences each.**

**(3x5=15)**

ಕೆಳಗಿನ ಪ್ರಶ್ನೆಗಳಿಗೆ 3-5 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿ.

1. Write a note on Dwaita Philosophy.  
ದ್ವೈತ ಸಿದ್ಧಾಂತದ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
2. What is unique about the Stone Chariot at Hampi?  
ಹಂಪಿಯ ಕಲ್ಲಿನ ರಥದ ವೈಶಿಷ್ಟ್ಯವೇನು?
3. Write a note on Anubhava Mantapa.  
ಅನುಭವ ಮಂಟಪದ ಕುರಿತು ಬರೆಯಿರಿ.
4. What is Sufism? Name any four Sufi saints.  
ಸೂಫಿ ಪಂಥ ಎಂದರೇನು? ನಾಲ್ಕು ಸೂಫಿ ಸಂತರನ್ನು ಹೆಸರಿಸಿ.
5. Write a brief note on Afaqui and Dakhani conflict in Bahamani nobility.  
ಬಹಮನಿ ರಾಜ್ಯದಲ್ಲಿ ಅಫಾಕಿ ಹಾಗೂ ದಖನಿ ಸರ್ದಾರ ವರ್ಗದ ನಡುವಿನ ಸಂಘರ್ಷದ ಕುರಿತು ಚುಟುಕಾಗಿ ಬರೆಯಿರಿ.

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St Aloysius College (Autonomous)

Mangaluru

B.A.- SEMESTER II – Degree Examination

May/June - 2023

ECONOMICS – OPEN ELECTIVE

ECONOMICS OF BUSINESS ENVIRONMENT

Time: 2½ Hours

Max. Marks: 60

## SECTION - A

I. Answer any **FIVE** of the following:

(5×2=10)

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ಐದು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ:

1. Define business environment.  
ವ್ಯಾಪಾರ ಪರಿಸರವನ್ನು ವ್ಯಾಖ್ಯಾನಿಸಿ.
2. Define fiscal policy.  
ಹಣಕಾಸಿನ ನೀತಿಯನ್ನು ವಿವರಿಸಿ.
3. Write any two differences between GATT and WTO.  
GATT ಮತ್ತು WTO ನಡುವೆ ಇರುವ ಎರಡು ವ್ಯತ್ಯಾಸಗಳನ್ನು ಬರೆಯಿರಿ.
4. Mention the 4 pillars of Make in India initiative.  
ಮೇಕ್ ಇನ್ ಇಂಡಿಯಾ ಉಪಕ್ರಮದ 4 ಸ್ತಂಭಗಳನ್ನು ಉಲ್ಲೇಖಿಸಿ.
5. What is political environment?  
ರಾಜಕೀಯ ಪರಿಸರ ಎಂದರೇನು?
6. Mention any four consumer's rights.  
ಗ್ರಾಹಕರ ಯಾವುದಾದರೂ ನಾಲ್ಕು ಹಕ್ಕುಗಳನ್ನು ಉಲ್ಲೇಖಿಸಿ.
7. What is patent and trade mark?  
ಪೇಟೆಂಟ್ ಮತ್ತು ಟ್ರೇಡ್ ಮಾರ್ಕ್ ಎಂದರೇನು?
8. Who and when was ease of doing business initiated?  
ಸುಲಭ ವ್ಯಾಪಾರವನ್ನು ಯಾರು ಮತ್ತು ಯಾವಾಗ ಪ್ರಾರಂಭಿಸಿದರು?

## SECTION - B

II. Answer any **SIX** of the following:

(6×5=30)

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ಆರು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ:

9. Explain the process of environmental analysis.  
ಪರಿಸರ ವಿಶ್ಲೇಷಣೆಯ ಪ್ರಕ್ರಿಯೆಯನ್ನು ವಿವರಿಸಿ.
10. Explain the meaning and objectives of monetary policy.  
ವಿತ್ತೀಯ ನೀತಿಯ ಅರ್ಥ ಮತ್ತು ಉದ್ದೇಶಗಳನ್ನು ವಿವರಿಸಿ.
11. Explain the nature and impact of globalisation.  
ಜಾಗತೀಕರಣದ ಸ್ವರೂಪ ಮತ್ತು ಪ್ರಭಾವವನ್ನು ವಿವರಿಸಿ.
12. Write a note on types and importance of corporate social responsibility.  
ಕಾರ್ಪೊರೇಟ್ ಸಾಮಾಜಿಕ ಜವಾಬ್ದಾರಿಯ ವಿಧಗಳು ಮತ್ತು ಪ್ರಾಮುಖ್ಯತೆಯ ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
13. Differentiate between public investment and private investment in R and D.  
R ಮತ್ತು D ಯಲ್ಲಿ ಸಾರ್ವಜನಿಕ ಹೂಡಿಕೆ ಮತ್ತು ಖಾಸಗಿ ಹೂಡಿಕೆಯನ್ನು ಪ್ರತ್ಯೇಕಿಸಿ.

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14. Explain the role of foreign direct investment and its impact on business.  
ವಿದೇಶಿ ನೇರ ಹೂಡಿಕೆಯ ಪಾತ್ರ ಮತ್ತು ವ್ಯವಹಾರದ ಮೇಲೆ ಅದರ ಪ್ರಭಾವವನ್ನು ವಿವರಿಸಿ.
15. Explain the provisions of Indian Constitution for business.  
ವ್ಯಾಪಾರಕ್ಕಾಗಿ ಭಾರತೀಯ ಸಂವಿಧಾನದ ನಿಬಂಧನೆಗಳನ್ನು ವಿವರಿಸಿ.
16. Write a note on Environmental Laws.  
ಪರಿಸರ ಕಾನೂನುಗಳ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
17. Explain the National Monetisation Pipeline.  
ರಾಷ್ಟ್ರೀಯ ಹಣಕಾಸಿನ ಪೈಪ್‌ಲೈನ್ ಅನ್ನು ವಿವರಿಸಿ.

**SECTION – C****III. Answer any TWO of the following:**

(2×10=20)

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ಎರಡು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ:

18. Discuss the micro and macro environment of business.  
ವ್ಯವಹಾರದ ಸೂಕ್ಷ್ಮ ಮತ್ತು ಸಮಗ್ರ ಪರಿಸರವನ್ನು ಚರ್ಚಿಸಿ.
19. Explain the characteristics of Indian economy.  
ಭಾರತದ ಆರ್ಥಿಕತೆಯ ಲಕ್ಷಣಗಳನ್ನು ವಿವರಿಸಿ.
20. Analyse the quantitative and qualitative instruments of credit control.  
ಉದರಿ (ಪತ್ತಿನ) ನಿಯಂತ್ರಣದ ಪರಿಮಾಣಾತ್ಮಕ ಮತ್ತು ಗುಣಾತ್ಮಕ ಸಾಧನಗಳನ್ನು ವಿಶ್ಲೇಷಿಸಿ.
21. Explain the competition policy and law in legal environmental business.  
ಕಾನೂನು ಪರಿಸರ ವ್ಯವಹಾರದಲ್ಲಿ ಸ್ಪರ್ಧೆಯ ನೀತಿ ಮತ್ತು ಕಾನೂನನ್ನು ವಿವರಿಸಿ.

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(2021 Batch Onwards)

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**St Aloysius College (Autonomous)**  
**Mangaluru**

**B.A. Semester II – Degree Examination**  
**May/June - 2023**

**POLITICAL SCIENCE – OPEN ELECTIVE**  
**LEGAL LITERACY IN INDIA**

Time: 2½ Hours

Max. Marks: 60

**I Answer any THREE the following, each not exceeding two (5×3=15) pages.**

ಕೆಳಗಿನವುಗಳಲ್ಲಿ ಯಾವುದಾದರೂ ಮೂರಕ್ಕೆ ಉತ್ತರಿಸಿ, ಪ್ರತಿಯೊಂದೂ ಎರಡು ಪುಟಗಳನ್ನು ಮೀರಬಾರದು.

1. Explain various innovative practices introduced in Indian Judicial System.  
ಭಾರತೀಯ ನ್ಯಾಯಾಂಗ ಪದ್ಧತಿಯಡಿಯಲ್ಲಿ ಪರಿಚಯಿಸಲಾದ ನೂತನ ಅಭ್ಯಾಸಗಳನ್ನು ವಿವರಿಸಿ.
2. Explain different sources of law in India.  
ಭಾರತದಲ್ಲಿರುವ ವಿವಿಧ ಕಾನೂನಿನ ಮೂಲಗಳನ್ನು ವಿವರಿಸಿ.
3. Write a note on Lok Adalat.  
ಲೋಕ್ ಅದಾಲತ್ ಬಗ್ಗೆ ಒಂದು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
4. Gender equity includes protection from sexual harassment and the right to work with dignity. Explain.  
ಲಿಂಗ ಸಮಾನತೆಯು ಲೈಂಗಿಕ ಕಿರುಕುಳದಿಂದ ರಕ್ಷಣೆ ಮತ್ತು ಘನತೆಯಿಂದ ಕೆಲಸ ಮಾಡುವ ಹಕ್ಕನ್ನು ಒಳಗೊಂಡಿದೆ. ವಿವರಿಸಿ.
5. What is Search and seizure? Explain the procedure to be followed while carrying out a search.  
ಹುಡುಕಾಟ ಮತ್ತು ಜಪ್ತಿ ಅಂದರೇನು? ಹುಡುಕಾಟ ಮಾಡುವಾಗ ಅನುಸರಿಸಬೇಕಾದ ಕ್ರಮಗಳನ್ನು ವಿವರಿಸಿ.

**II Answer any THREE of the following, each not exceeding (15×3=45) four pages.**

ಈ ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಮೂರು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ. ಪ್ರತಿಯೊಂದೂ ನಾಲ್ಕು ಪುಟಗಳನ್ನು ಮೀರಬಾರದು.

6. Explain various types of offenses.  
ವಿವಿಧ ರೀತಿಯ ಅಪರಾಧಗಳನ್ನು ವಿವರಿಸಿ.
7. What do mean by FIR? Explain provisions relating to filing an FIR.  
ಎಫ್. ಐ. ಆರ್. ಅಂದರೇನು? ಎಫ್. ಐ. ಆರ್.ನ್ನು ಭರ್ತಿ ಮಾಡಲು ಬೇಕಾಗುವ ಆಂಶಗಳನ್ನು ವಿವರಿಸಿ.
8. Explain various steps followed under the Indian criminal justice system while instituting a criminal case.  
ಭಾರತೀಯ ಅಪರಾಧ ನ್ಯಾಯ ಪದ್ಧತಿಯಲ್ಲಿ ಕ್ರಿಮಿನಲ್ ಕೇಸ್‌ನ್ನು ದಾಖಲಿಸುವಾಗ ಕೈಗೊಳ್ಳಬೇಕಾದ ವಿವಿಧ ಕ್ರಮಗಳನ್ನು ವಿವರಿಸಿ.
9. Bring out the significance of various legal institutions in our lives, culture, and political system.  
ನಮ್ಮ ಜೀವನ, ಸಂಸ್ಕೃತಿ ಹಾಗೂ ರಾಜಕೀಯ ಪದ್ಧತಿಯಲ್ಲಿ ವಿವಿಧ ಕಾನೂನು ಸಂಸ್ಥೆಗಳ ಪ್ರಮುಖತೆಯನ್ನು ವಿವರಿಸಿ.
10. Explain the salient features of the Protection of Children from Sexual offence Act, 2012.  
ಲೈಂಗಿಕ ಅಪರಾಧದಿಂದ ಮಕ್ಕಳ ರಕ್ಷಣೆ ವಿಧಿ 2012 ರ ಗುಣಲಕ್ಷಣಗಳನ್ನು ವಿವರಿಸಿ.
11. Explain the different modes of Alternative Dispute Resolution mechanisms in India.  
ಭಾರತದಲ್ಲಿ ಪರ್ಯಾಯ ವಿವಾದ ಪರಿಹಾರದ ವಿವಿಧ ಕಾರ್ಯವಿಧಾನಗಳನ್ನು ವಿವರಿಸಿ.

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**St Aloysius College (Autonomous)**  
**Mangaluru**

B.A. Semester II – Degree Examination

May / June - 2023

SOCIOLOGY (OPEN ELECTIVE)

SOCIETY THROUGH GENDER LENS

Time: 2½ Hours

Max. Marks: 60

## PART – A

Answer any **FIVE** questions in 2-3 sentences each.

(5x2=10)

ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಐದು ಪ್ರಶ್ನೆಗಳಿಗೆ 2 -3 ವಾಕ್ಯಗಳಲ್ಲಿ ಉತ್ತರಿಸಿರಿ.

1. Differentiate between gender and sex.

ಸಾಮಾಜಿಕ ಲಿಂಗ ಮತ್ತು ಜೈವಿಕ ಲಿಂಗದ ನಡುವಿನ ವ್ಯತ್ಯಾಸವನ್ನು ಗುರುತಿಸಿ.

2. What is gender discrimination?

ಲಿಂಗ ತಾರತಮ್ಯ ಎಂದರೇನು?

3. What is gender sensitivity?

ಲಿಂಗ ಸೂಕ್ಷ್ಮತೆ ಎಂದರೇನು?

4. What is meant by "androgyny"?

"ಆಂಡ್ರೋಜಿನಿ" ಎಂದರೇನು?

5. What plays a decisive role in gender socialization?

ಲಿಂಗ ಸಾಮಾಜಿಕೀಕರಣದಲ್ಲಿ ಯಾವುದು ನಿರ್ಣಾಯಕ ಪಾತ್ರವನ್ನು ವಹಿಸುತ್ತದೆ?

6. Expand LFPR.

LFPR ಅನ್ನು ವಿಸ್ತರಿಸಿ.

7. Mention the years when the Protection of Women from Domestic Violence Act and Dowry Prohibition Act passed?

ಕೌಟುಂಬಿಕ ಹಿಂಸಾಚಾರದಿಂದ ಮಹಿಳೆಯರ ರಕ್ಷಣೆ ಕಾಯಿದೆ ಮತ್ತು ವರದಕ್ಷಿಣೆ ನಿಷೇಧ ಕಾಯಿದೆ ಜಾರಿಗೆ ಬಂದ ವರ್ಷಗಳನ್ನು ಉಲ್ಲೇಖಿಸಿ?

8. Expand CEDAW.

CEDAW ಅನ್ನು ವಿಸ್ತರಿಸಿ.

## PART - B

Answer any **SIX** of the following:

(6x5=30)

ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಆರು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿರಿ.

9. What are the acts and places of gender discrimination in India?

ಭಾರತದಲ್ಲಿ ಲಿಂಗ ತಾರತಮ್ಯದ ಕಾಯಿದೆಗಳು ಮತ್ತು ಸ್ಥಳಗಳು ಯಾವುವು?

10. Describe the characteristics of androgynous men and women.

ಆಂಡ್ರೋಜಿನಸ್ ಪುರುಷರು ಮತ್ತು ಮಹಿಳೆಯರ ಗುಣಲಕ್ಷಣಗಳನ್ನು ವಿವರಿಸಿ.

11. Discuss transgender and unemployment in India.

ಭಾರತದಲ್ಲಿ ತೃತೀಯ ಲಿಂಗ ಮತ್ತು ನಿರುದ್ಯೋಗವನ್ನು ಚರ್ಚಿಸಿ.

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12. Discuss the portrayal of women in media.  
ಮಾಧ್ಯಮದಲ್ಲಿ ಮಹಿಳೆಯರ ಚಿತ್ರಣವನ್ನು ಚರ್ಚಿಸಿ.
13. Honor killing is a myth or a reality. Discuss.  
ಮರ್ಯಾದಾ ಹತ್ಯೆ ಒಂದು ಕಾಲ್ಪನಿಕತೆ ಮತ್ತು ವಾಸ್ತವಿಕತೆ ಚರ್ಚಿಸಿ.
14. Discuss rape in modern India.  
ಆಧುನಿಕ ಭಾರತದಲ್ಲಿ ಅತ್ಯಾಚಾರವನ್ನು ಚರ್ಚಿಸಿ.
15. Discuss CEDAW.  
CEDAW ಅನ್ನು ಚರ್ಚಿಸಿ.
16. Analyze women empowerment through 73<sup>rd</sup> Amendment Act.  
73 ನೇ ತಿದ್ದುಪಡಿ ಕಾಯಿದೆಯ ಮೂಲಕ ಮಹಿಳಾ ಸಬಲೀಕರಣವನ್ನು ವಿಶ್ಲೇಷಿಸಿ.
17. Discuss any one legal measure for empowering women.  
ಮಹಿಳೆಯರ ಸಬಲೀಕರಣಕ್ಕಾಗಿ ಯಾವುದಾದರೂ ಒಂದು ಕಾನೂನು ಕ್ರಮವನ್ನು ಚರ್ಚಿಸಿ.

**PART - C****Answer any TWO of the following:****(2x10=20)**

ಕೆಳಗಿನ ಯಾವುದಾದರೂ ಎರಡು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿರಿ.

18. Stigma and androgyny - Critically analyze.  
ಕಳಂಕ ಮತ್ತು ಆಂಡ್ರೋಜಿನಿ - ವಿಮರ್ಶಾತ್ಮಕವಾಗಿ ವಿಶ್ಲೇಷಿಸಿ.
19. 'Dowry is extinct in modern India'. Discuss.  
'ಆಧುನಿಕ ಭಾರತದಲ್ಲಿ ವರದಕ್ಷಿಣೆ ನಿರ್ನಾಮವಾಗಿದೆ' - ಚರ್ಚಿಸಿ.
20. Cybercrimes in India have increased in the past decade. Discuss its various forms.  
ಕಳೆದ ದಶಕದಲ್ಲಿ ಭಾರತದಲ್ಲಿ ಸೈಬರ್ ಅಪರಾಧಗಳು ಹೆಚ್ಚಿವೆ. ಅದರ ವಿವಿಧ ರೂಪಗಳನ್ನು ಚರ್ಚಿಸಿ.
21. Critically examine the effectiveness of all legal measures and constitutional provisions made for women empowerment in India.  
ಭಾರತದಲ್ಲಿ ಮಹಿಳಾ ಸಬಲೀಕರಣಕ್ಕಾಗಿ ಮಾಡಲಾದ ಎಲ್ಲಾ ಕಾನೂನು ಕ್ರಮಗಳು ಮತ್ತು ಸಾಂವಿಧಾನಿಕ ನಿಬಂಧನೆಗಳ ಪರಿಣಾಮಕಾರಿತ್ವವನ್ನು ವಿಮರ್ಶಾತ್ಮಕವಾಗಿ ಪರಿಶೀಲಿಸಿ.

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(2021 batch onwards)

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Reg. No:

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**St Aloysius College (Autonomous)  
Mangaluru**

**B.A. Semester II – Degree Examination  
May/June 2023**

**Open Elective  
PHOTO JOURNALISM**

Time: 2 ½ Hours

Max. Marks: 60

**I Answer any Five of the following****(5X10=50)**

ಕೆಳಕಂಡ ಯಾವುದಾದರೂ ಐದು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಿ.

1. Sketch the history of photography with remarkable inventions in the field.  
ಛಾಯಾಚಿತ್ರ ಕ್ಷೇತ್ರದ ಇತಿಹಾಸವನ್ನು ಗಮನಾರ್ಹ ಬದಲಾವಣೆಗಳೊಂದಿಗೆ ವಿವರಿಸಿ.
2. Write a note on different types of camera with its operational details.  
ಕಾರ್ಯವೈಖರಿಗೆ ಅನುಗುಣವಾಗಿ ವಿವಿಧ ಬಗೆಯ ಕ್ಯಾಮೆರಾಗಳ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
3. Briefly explain the different types of lenses used in photography.  
ಛಾಯಾಚಿತ್ರದಲ್ಲಿ ಬಳಸುವ ನಾನಾ ಬಗೆಯ ಲೆನ್ಸ್‌ಗಳ ಕುರಿತು ಸಂಕ್ಷಿಪ್ತವಾಗಿ ವಿವರಿಸಿ.
4. What are the role and responsibilities of a photo journalist?  
ಛಾಯಾಚಿತ್ರ ಪತ್ರಕರ್ತನ ಪಾತ್ರ ಮತ್ತು ಜವಾಬ್ದಾರಿಗಳೇನು?
5. Write a note on the different techniques used in photo editing.  
ಛಾಯಾಚಿತ್ರ ಸಂಕಲನಕ್ಕೆ ಬಳಸುವ ವಿವಿಧ ತಂತ್ರಗಳ ಬಗ್ಗೆ ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.
6. How MOJO has changed the concept of professional photography in India?  
Explain.  
ಮೊಜೊ ಪತ್ರಿಕೋದ್ಯಮ ಭಾರತದಲ್ಲಿ ವೃತ್ತಿಪರ ಛಾಯಾಚಿತ್ರ ಕ್ಷೇತ್ರದಲ್ಲಿ ಯಾವ ರೀತಿಯ ಬದಲಾವಣೆಗಳನ್ನು ತಂದಿದೆ? ವಿವರಿಸಿ.
7. Explain the different types of shots in photography with diagram.  
ದೃಶ್ಯಗಳ ವಿವಿಧ ವಿಧಗಳನ್ನು ರೇಖಾಚಿತ್ರದ ಮೂಲಕ ವಿವರಿಸಿ.

**II Write short notes****(4X 2½=10)**

ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ.

1. Shot Composition  
ದೃಶ್ಯ ಸಂಯೋಜನೆ
2. Lighting in photography  
ಛಾಯಾಗ್ರಹಣದಲ್ಲಿ ಬೆಳಕಿನ ಬಳಕೆ
3. Danish Siddiqui  
ಡ್ಯಾನಿಶ್ ಸಿದ್ಧಿಕಿ
4. Depth of field  
ಡೆಪ್ತ್ ಆಫ್ ಫೀಲ್ಡ್

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(2022 batch onwards)

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**St Aloysius College (Autonomous)**  
**Mangaluru**  
**B.A. Semester II – Degree Examination**  
**May /June- 2023**  
**Kannada Optional -2 (open Elective)**  
**ಸಾಹಿತ್ಯ: ಸಾಹಿತ್ಯ ಮತ್ತು ಚಲನಚಿತ್ರ**  
**Sachitra : Literature and Film**

Max Marks: 60

Time: 2½ hrs.

7 X 3= 21

I ಕೆಲವು ಪ್ರಶ್ನೆಗಳಲ್ಲಿ ಮೂರನ್ನು ಪ್ರಬಂಧ ರೂಪದಲ್ಲಿ ಉತ್ತರಿಸಿ  
 Explain any THREE questions in essay form

1. ಸಿನೆಮಾ ವಿಮರ್ಶೆ ಎಂದರೇನು? ವಿವರಿಸಿರಿ

What do you mean by Film Review? Explain

2. ಸಿನೆಮಾ ಚಿತ್ರೀಕರಣ ಸಂದರ್ಭದಲ್ಲಿ ಬೇಕಾಗುವ ಮುಖ್ಯ ವಿಭಾಗಗಳು ಯಾವುವು?

What are the essential departments during a film shoot? Elaborate

3. "The Monkey's Paw" ಕಿರುಚಿತ್ರವನ್ನು ಸಿನೆಮಾ ಕ್ಷೇತ್ರದ ವಿವಿಧ ವಿಭಾಗಗಳ ಆಧಾರದಲ್ಲಿ ವಿಮರ್ಶಿಸಿ

Write a brief note on the short film "The Monkeys Paw"

4. ಸಿನೆಮಾ ನಟನೆಯು ರಂಗಭೂಮಿಯ ನಟನೆಗಿಂತ ಹೇಗೆ ವಿಭಿನ್ನವಾದುದು? ಚರ್ಚಿಸಿ

How the film acting is different from theatre acting? Explain

5. ಸಿನೆಮಾದಲ್ಲಿನ ಛಾಯಾಗ್ರಹಣದ ಮಹತ್ವವನ್ನು ವಿವರಿಸಿರಿ

Explain the importance of Cinematography in a movie

6. ಘಟಶ್ರಾದ್ಧ ಸಿನೆಮಾವನ್ನು ವಿಶ್ಲೇಷಿಸಿ

Analyze the movie Ghatashradda

II ಕೆಲವು ಪ್ರಶ್ನೆಗಳಲ್ಲಿ ಮೂರನ್ನು ಸಂಕ್ಷಿಪ್ತ ರೂಪದಲ್ಲಿ ಉತ್ತರಿಸಿ

Answer any THREE questions from the following as a short essay.

7. ನೀವಲ್ಲವೇ - ಕವಿತೆಯ ವೀಡಿಯೋವನ್ನು ವಿಮರ್ಶಿಸಿ

Write a critical analysis on "NEEVALLAVE" video song.

8. ನೀವು ನೋಡಿದ ಯಾವುದಾದರೂ ಸಿನೆಮಾದ ಕುರಿತು ವಿಮರ್ಶೆಯನ್ನು ಬರೆಯಿರಿ

Write a review of any film which you have seen it recently

9. ಸಿನೆಮಾ ನಿರ್ದೇಶಕ ಕಥೆಗಾರ ಹೇಗೆ ಆಗುತ್ತಾನೆ? ವಿಮರ್ಶಿಸಿ

How the Director of the movie turns out to be a story teller? Explain.

10. ಸಿನೆಮಾ ನಿರ್ದೇಶನದ ಕುರಿತು ಬರೆಯಿರಿ

Write a brief note about Movie Direction

11. ಕಾಕನಕೋಟೆ ಸಿನೆಮಾವನ್ನು ವಿಮರ್ಶಿಸಿ.

Write a review on the movie 'Kakanakote'

12. ಸಾಹಿತ್ಯ ಸಿನೆಮಾವಾಗಲು ಬೇಕಾಗುವ ಅಂಶಗಳು ಯಾವುವು? ಚರ್ಚಿಸಿ

What are the elements required to convert a literature into a cinema? Discuss

III ನಿಮ್ಮ ಇಷ್ಟದ ಯಾವುದಾದರೂ ಒಂದು ಕವಿತೆಗೆ ಚಿತ್ರಕಥೆಯನ್ನು ಬರೆಯಿರಿ.

4 X 1= 04

13. Write a Screenplay for a poem of your choice.

Contd...2

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- IV ಯಾವುದಾದರೂ ಪಾತ್ರವನ್ನು ರಚಿಸಿ, ವಿಶ್ಲೇಷಿಸಿ ಅದರ ಇತಿಹಾಸವನ್ನು ವಿವರಿಸಿ  
14. Create any character, analyze it and explain its history 4X1= 04
- V ಅ) ಕೆಳಗಿನ ಎರಡರ ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ  
**Write a short note on any TWO of the following.**  
15. ದಾದಾ ಸಾಹೇಬ್ ಫಾಲ್ಕೆ Dada Saheb Phalke  
16. ಮಿಥಿಲೆ Mithile  
17. ಸತ್ಯಜಿತ್ ರೇ Satyajit Ray  
18. ಯು.ಆರ್. ಅನಂತಮೂರ್ತಿ U. R. Ananthamurthy  
ಅ) ಕೆಳಗಿನ ಎರಡರ ಕುರಿತು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ 3X2= 06  
**Write a short note on any TWO of the following.**  
19. ಸಹ ನಿರ್ದೇಶಕ Associate Directors  
20. ನಿರಂತರತೆ ವಿಭಾಗ Continuity Department  
21. ಕಲಾ ನಿರ್ದೇಶಕ Art Director  
22. ಚಲನಚಿತ್ರ ವಿತರಕ Movie Distributor  
VI ಕೆಳಗಿನ ಪ್ರಶ್ನೆಗಳಿಗೆ ಒಂದೊಂದು ವಾಕ್ಯದಲ್ಲಿ ಉತ್ತರಿಸಿ 1X10= 10  
**Answer the following questions in at least one sentence.**  
23. ನೀವಲ್ಲವೇ- ಕವಿತೆಯ ಕವಿ ಯಾರು?  
Who is the poet of Neevallave?  
24. ಘಟಶ್ರಾದ್ಧ ಸಿನೆಮಾದ ನಿರ್ದೇಶಕರು ಯಾರು?  
Who directed the movie Ghatashraadha?  
25. 'ಮಿಥಿಲೆ' ಕವಿತೆಯ ವಿಡಿಯೋ ಚಿತ್ರೀಕರಣದ ನಿರ್ದೇಶನ ಮಾಡಿದವರು ಯಾರು?  
Who is the director of MITHILE video?  
26. ಭಾರತೀಯ ಚಿತ್ರರಂಗದ ಪಿತಾಮಹ ಯಾರು?  
Who is the father of Indian Cinema?  
27. ವಿಸ್ತರಿಸಿ FTII  
Expand FTII  
28. The Monkey's Paw ಕಥೆಯನ್ನು ಬರೆದವರು ಯಾರು?  
Who is the author of the story 'The Monkey's Paw'?  
29. FTII ಸಂಸ್ಥೆಯ ಪ್ರಸ್ತುತ ಅಧ್ಯಕ್ಷರು ಯಾರು?  
Name the present Chairman of FTII?  
30. ಆಸ್ಕರ್ ಪ್ರಶಸ್ತಿ ಪಡೆದ ಮೊದಲ ಭಾರತೀಯ ಯಾರು?  
Who was the first Indian to win Oscar Award?  
31. ಪ್ರಪಂಚದ ಮೊದಲ ಸಿನೆಮಾ ಯಾವುದು?  
What was the first movie ever made?  
32. ಗುಂಪಿಗೆ ಸೇರದ ಪದ ತಿಳಿಸಿ.  
Choose the word which doesn't fit in this group.  
Continuity Department, Art Department, Income Tax Department, Light  
Department

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(2021 batch onwards)

Reg. No.:

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**St Aloysius College (Autonomous)**  
**Mangaluru**  
**BA Semester II- Degree Examination**  
**May / June - 2023**

**English Major (Open Elective)**

**A BRIEF INTRODUCTION TO WESTERN THOUGHT**

Time: 2½ hrs.

Max Marks: 60

**UNIT - I**

**I. A Answer the following in a word/phrase/sentence each: (10x1=10)**

1. The word philosophy takes two Greek words; Philo stands for love and Sophia means \_\_\_\_\_.
2. What is philosophy concerned with?
3. Who discovered that the workings of the material universe are all expressible in terms of mathematics?
4. Plato underlined his vision of governance in his seminal work \_\_\_\_\_.
5. Who is known as the 'weeping philosopher'?
6. According to Hegel the proper method for philosophy is \_\_\_\_\_.
7. What was Voltaire's real name?
8. Name any one work that Nietzsche penned.
9. 'Golden Mean' is the concept of \_\_\_\_\_.
10. Name the school of philosophy that emerged during the Hellenistic period.

**UNIT - II**

**II.A Answer any THREE of the following in about 100-150 words each:**

(3x5=15)

1. What is the nature of knowledge and its sources according to Locke?
2. "Wonder is said to be the origin of philosophy". Comment.
3. In what way the ideas of Rousseau and Voltaire benefit the French people?
4. Briefly explain the Cartesian doubt.

**B Answer any THREE of the following in about 100-150 words each:**

(3x5=15)

1. Comment on Montesquieu's theory of philosophy.
2. What is the value of philosophy according to Bertrand Russel?
3. Give an account of Nietzsche's philosophy.
4. Write short notes on the branches of philosophy.

**UNIT - III**

**III. Answer any ONE of the following in about 300 words: (1x20=20)**

1. Compare and contrast the major views and ideas of any three philosophers of your choice. Provide relevant examples and references to strengthen your ideas.
2. Define existentialism. Who were the major existentialists and how have they approached the question of human existence?
3. Give an account of the implications of Sartre's concept of freedom.

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(2021 batch onwards)

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**St Aloysius College (Autonomous)  
Mangaluru**

B.A. Semester II – Degree Examination  
May / June - 2023

**Communicative English (Open Elective)**

Basics of English Grammar and Vocabulary

Time: 2½ hrs.

Max Marks: 60

**I. Choose the most appropriate synonyms for the underlined words.**

5X1=5

- The author's wife did not show anger or exasperation.  
(a) Pleasure (b) Irritation (c) Pain (d) Hatred
- He explained the venerable relationship between Bill and William but in vain.  
(a) Loathsome (b) Valuable (c) Hurt (d) Howled
- When it's my own blood, I think hysterics is justified.  
(a) Frenzy (b) Whisper (c) Rustle (d) Hustle
- The man held out his battered hat for alms.  
(a) New (b) torn (c) Woollen cloth (d) Beautiful
- She made herself indispensable to her institution.  
(a) Essential (b) Necessary (c) Meagre (d) Negligible

**II. Choose the most appropriate antonym for the underlined word:**

5X1=5

- Rakesh was inquisitive to know the secret.  
(a) Curious (b) Incurious (c) Notorious (d) Eager
- Some people argue that computerisation will aggravate the unemployment problem.  
(a) Wipe out (b) Consolidate (c) Alleviate (d) Remove
- He is a sturdy young man.  
(a) Dynamic (b) Strong (c) Weak (d) Ambitious
- Her face had an expression of absolute serenity.  
(a) Tranquility (b) Calmness (c) Peacefulness (d) Agitation
- Her friends remember how she incessantly talked about designing and flying planes.  
(a) Occasionally (b) Often (c) Always (d) Continuously

**III. Give one – word substitutes for the following.**

5X1=5

- Extreme old age when a man behaves like a fool  
(a) Imbecility (b) Senility (c) Dotage (d) Superannuation
- That which cannot be corrected  
(a) Unintelligible (b) Indelible (c) Illegible (d) Incurable
- The study of ancient societies  
(a) Anthropology (b) Archaeology (c) History (d) Ethnology
- A person of good understanding knowledge and reasoning power  
(a) Diplomat (b) Intellectual (c) Snob (d) Literate
- A person who insists on something  
(a) Disciplinarian (b) Stickler (c) Instantaneous (d) Boaster

Contd...2

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**IV. Choose the appropriate substitute for the underlined Idiom and Phrase. 5x1=5**

- I met him after a long time, but he gave me the cold shoulder.  
(a) scolded me (b) insulted me (c) abused me (d) ignored me
- When he heard that he had once again not been selected he lost heart.  
(a) became desperate (b) felt sad  
(c) became angry (d) became discouraged
- The accounts of the murder made her flesh creep.  
(a) Made her sad (b) Surprised her  
(c) Made her cry bitterly (d) Fill her with horror
- How long will the people put up with the increasing economic hardships?  
(a) welcome (b) take easily  
(c) remain satisfied with (d) tolerate
- The teacher warned the student once for all that no mischief shall be tolerated in the class.  
(a) authoritatively (b) finally  
(c) angrily (d) coldly

**V. Identify the errors in the following sentences and correct them.**

**If no errors then mark as no error.**

**10x1=10**

- Ramu is a honest man.
- Bread and butter are Sheldon's favourite breakfast.
- Birds of same feathers flock together.
- The teacher called me on 12 O'clock.
- The sweets was distributed between all the children.
- The flock of sheeps blocked the road.
- The children was playing in the Giant's garden.
- The children decided to surprise Miss Holmes on teacher's day.
- I saw Richard when I'm on the flight.
- Man have depended on nature for a long time.

**VI. Write an essay on the following topic.**

**1x10=10**

Rise of Artificial Intelligence: the threat of jobless future or better job opportunities through reskilling and up skilling

**VII. Read the following passage and write a Precis and Paraphrase the same. 5+5=10**

When we survey our lives and efforts we soon observe that almost the whole of our actions and desires are bound up with the existence of other human beings. We notice that whole nature resembles that of the social animals. We eat food that others have produced, wear clothes that others have made, live in houses that others have built. The greater part of our knowledge and beliefs has been passed on to us by other people through the medium of a language which others have created. Without language and mental capacities, we would have been poor compared to higher animals.

We have, therefore, to admit that we owe our principal knowledge over the least to the fact of living in human society. The individual if left alone from birth would remain primitive and beast like in his thoughts and feelings to a degree that we can hardly imagine. The individual is what he is and has the significance that he has, not much in virtue of the individuality, but rather as a member of a great human community, which directs his material and spiritual existence from the cradle to the grave.

**Contd...3**

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**VIII. Fill in the blanks with the appropriate word. (5x1=5)**

1. She is \_\_\_\_\_ (**confident / confidant**) of her success.
2. The doctor \_\_\_\_\_ (**advised / adviced**) the patients to quit smoking.
3. Plague is a \_\_\_\_\_ (**contagious / infectious**) disease.
4. She delivered the \_\_\_\_\_ (**elegy / eulogy**) at her father's memorial service.
5. Do you mean to \_\_\_\_\_ (**infer / imply**) that I stole your cell phone?

**IX. Read the comprehension passage and answer the following questions: (5x1=5)**

Medicines have become an element of surprise and a cause of concern. This is because they have begun to aggravate diseases instead of curing them. No one has a solution. The doctors are perplexed and the patients are annoyed. The outcome of intensive research and in-depth studies has startled everyone. These findings show that unnecessary use of medicines has created a trend in which people not only take medicines for every small ailments, but also advise others to do so. This habit is now a fashion, a passion and a mark of being educated and aware. Sometimes, it is even considered a status symbol. People think that they should take strong drugs, irrespective of whether the disease is minor or major. Nowadays, a shelf of medicines is found in every house. This practice is not merely confined to general medicines, but has now spread even to antibiotics. The literal meaning of the word antibiotics is – 'against life'. In fact, due to their misuse, they have really begun acting against our life. Experts say that unnecessary consumption of antibiotics is increasing the longevity of the microbes on the one hand, while adversely affecting the patient's health on the other. This is because due to the overuse of these medicines the resistance of micro organisms is increasing, while the immunity of the individuals is decreasing. The medical experts have now begun to accept openly that neither the doctors refrain from prescribing the antibiotics for even simple ailments, nor the patients observe restraint in consuming them. It is a matter of concern that these medicines are used excessively without understanding their side-effects. Recently, the World Health Organization has also issued an advisory to the Southeast Asian countries, including India. It has warned that if the unrestricted use of antibiotics continues, the coming times may witness a substantial rise in the number of deaths occurring due to 'microbial resistance.' Antibiotics either destroy the disease-causing bacteria completely or prohibit their growth. However, their prolonged use gives rise to mutation in the bacteria, which makes them resistant towards these drugs. Consequently, they stop, having any effect on them. This situation is termed by medical experts as 'microbial resistance'. Various researches and studies carried out in this context also lead to the conclusion that medicines are becoming poisonous. The chief cause of this situation is the unrestrained use of antibiotics. Studies have revealed that sometimes strong antibiotics are taken even for treating simple problems.

1. Why have medicines become an element of surprise?
2. What is the literary meaning of the word antibiotics?
3. What is the adverse effect of overuse of antibiotics?
4. What do antibiotics do with the disease causing bacteria?
5. What is warned by WHO?

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G 304.2 (R)

Reg. No.:

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**St Aloysius College (Autonomous)**  
**Mangaluru**  
**B.Com. Semester II – Degree Examination**  
**May/June - 2023**  
**ECONOMIC ENVIRONMENT**

Time: 3 hrs.

Max Marks: 100

**SECTION – A****Answer any FIVE questions of the following:****(5x2=10)**

1. Define Public finance.
2. What is fiscal policy?
3. Write a note on entrepreneurship development.
4. What is industrial licensing?
5. Define monetary policy.
6. Write the names of any two women entrepreneurs in India.
7. What is a sovereign rating?

**SECTION - B****Answer any FOUR questions of the following:****(4x12=48)**

8. Explain the features of the Indian economy.
9. Explain the canons of taxation.
10. Explain the role of fiscal policy in economic development.
11. Explain the financial sector reforms in India.
12. Explain Wagner's law of increasing public expenditure.
13. Describe the causes and effects of poverty in the Indian economy.

**SECTION – C****Answer any TWO questions of the following:****(2x16=32)**

14. Explain the issues and challenges of MSME.
15. Explain the objectives, uses, and processes of environmental analysis.
16. Explain the objectives and role of monetary policy.

**SECTION – D****Answer the following: Compulsory****(10)**

17. Write a note on NITI Aayog.

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(2021 batch onwards)

G 310 OE1.2

Reg. No. : 

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**St Aloysius College (Autonomous)**  
**Mangaluru**  
**B.Com. Semester II – Degree Examination**  
**May/June - 2023**  
**B.Com.– (Open Elective )**  
**PUBLIC FINANCE**

Time: 2 ½ Hours

Max Marks: 60

**SECTION – A**Answer any **FIVE** of the following.

(5x2=10)

1. What is high powered Money?
2. What is money multiplier?
3. What is Budget?
4. What is deficit finance?
5. Define money.
6. Define Fiscal policy.
7. State Hawtrey's theory.

**SECTION - B**Answer any **FOUR** of the following.

(4x5=20)

8. Explain Schumpeter's theory of business cycle.
9. What is Public Budget? Explain its objectives.
10. Explain the Role of fiscal policy in developing economy.
11. What are the types and uses of Index numbers?
12. Define Public Debt. What are the Sources of Public Debt?
13. Define Inflation. Explain the causes and effects of inflation.

**SECTION – C**Answer any **TWO** of the following.

(2x15=30)

14. Explain the functions and classification of money
15. Explain the principle of maximum social advantage.
16. Explain the causes and phases of Business cycle.

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G 340 OE1.2

Reg. No. :

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**St Aloysius College (Autonomous)  
Mangaluru**

**Semester II – Degree Examination  
May/June - 2023**

**B.Com. (ACCOUNTING AND TAX) – OPEN ELECTIVE  
MANAGERIAL ECONOMICS II**

Time: 2½ hours

Max Marks: 60

**SECTION – A****Answer any FIVE of the following.****(5x2=10)**

1. What is Marginal Revenue? State the formula.
2. Explain Semi Variable Cost with the help of a diagram.
3. Mention the 2 behavioral principles.
4. Mention the classification of markets based on volume of business.
5. At which stage would a rational producer produce?
6. List out the 3 stages of Capital Formation.
7. When is a firm said to be maximizing profits?

**SECTION - B****Answer any FOUR of the following.****(4x5=20)**

8. Briefly explain the 4 types of utilities with examples.
9. List out any 5 characteristics of Land.
10. List out any 5 features of an Optimum Firm.
11. List out the 5 features of Perfect Competition.
12. Briefly explain classification of markets based on Geographical Area.
13. Briefly explain TR, AR and MR with formulae.

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

14. Explain the Short-Run Unit Cost Curves (AFC, AVC, ATC and MC) with the help of formulae and diagrams.
15. Explain in detail the classification of markets based on time.
16. Write a short note on:
  - (i) Direct and Indirect Cost
  - (ii) Fixed and Variable Cost
  - (iii) Incremental and Sunk Cost
  - (iv) Accounting and Economic Cost
  - (v) Outlay and Opportunity Cost

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G 401 OE1.2

(2021 Batch onwards)

Reg. No. :

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**St Aloysius College (Autonomous)****Mangaluru****B.B.A. Semester II – Degree Examination****May/June - 2023****B.B.A - OPEN ELECTIVE  
MANAGERIAL ECONOMICS****Time: 2 ½ Hours****Max Marks: 60****PART – A****Answer any FIVE of the following.****(5x2=10)**

1. Define Managerial Economics.
2. What are Explicit costs?
3. Why is the LAC curve called 'envelope curve'?
4. What is the shape of the average fixed cost (AFC) curve?
5. What is Marginal Revenue?
6. What do you mean by Perfect competition?
7. State any two features of Monopoly.
8. What do you mean by price discrimination?

**PART - B****Answer any FOUR of the following.****(4x5=20)**

9. Explain the relation between Managerial Economics and Economics.
10. Write a note on types of revenue.
11. What are the Features of Perfect Competition?
12. Explain the characteristics of Monopolistic Competition.
13. Briefly explain the various cost concepts.
14. Briefly explain the relationship between AR and MR under perfect and imperfect competition.

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

15. Explain the nature and scope of Managerial economics.
16. Explain the price output determination of the firm and industry in the short run and long run under perfect competition.
17. Explain the cost-output relationship in the short run.
18. Explain break-even analysis.

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G 403.2(R)

(2013 -2017 Batch)

Reg. No.:

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**St Aloysius College (Autonomous)****Mangaluru****B.B.A/B.B.M. Semester II – Degree Examination****May/June - 2023****BUSINESS MATHEMATICS**

Time: 3 hrs.

Max Marks: 100

**SECTION – A**

1. Answer ALL the questions in 2 or 3 sentences each. (10x2=20)
- Define sample space. Give example.
  - Define Objective function.
  - What is Perpetual Annuity?
  - Find the simple interest on ₹ 8,000 for 3 years at 4% per annum.
  - Differentiate  $x^5$  with respect to 'x'
  - Find the marginal cost of production if a company spent ₹ 20 on producing 2 units of output.
  - A machine listed at ₹ 625 was sold at a discount of 15%. Find the discount and the net price.
  - If  $P(A) = \frac{1}{2}$ ,  $P(B) = \frac{3}{4}$  and  $P(A \cap B) = \frac{1}{4}$  Find  $P(A \cup B)$
  - A letter of English alphabet is chosen at random. Determine the probability that chosen letter is consonant.
  - Give the meaning of trade discount and trade discount.

**SECTION – B**

Answer any **FIVE** questions in not less than one page each. (5x7=35)

- A bag contains 5 red balls and some blue balls. If the probability of drawing a blue ball is double that of a red ball, determine the number of blue balls in the bag.
- The marks in certain mathematics exams are assumed to have a normal distribution with mean 80 and variance 25. What is the probability that student scored between 70 and 85 in that exam?
- Find the derivative of the function

$$g(y) = (y - 4)(2y + y^2)$$

- Mr. Suresh borrowed ₹ 25,000 for 6 years. Calculate compound interest at 9% p.a reckoned quarterly.
- Differentiate with respect to 'x' :  $\sqrt{x^2 + x + 1}$
- A man lost 5% by selling an article for ₹ 28.50. For how much he should sell it to gain 10%.
- Solve the following LPP graphically

$$\text{Minimize } Z = 200x + 500y$$

$$x + 2y \geq 10$$

$$3x + 4y \leq 24$$

$$x \geq 0, y \geq 0$$

Contd...2

G 403.2(R)

Page No. 2

## SECTION – C

Answer the following in not less than two pages each. (3x15=45)

9. X is normally distributed with mean 30 and standard deviation 4. Find the probability of 'X'

- i) Less than 40
- ii) More than 21
- iii) Between 30 and 35

OR

- (a) A bag contain 4 black, 5 blue, 6 green balls. 2 balls are drawn at random, what is the probability that it is same? (7 Marks)
- (b) A bag has 10 red balls, 5 yellow balls, and 15 green balls. If a ball is selected randomly, then calculate the probability that it will be:
- i) Red
  - ii) Yellow
  - iii) Not green
  - iv) Two green balls (8 Marks)

10. Using simplex method solve the following LPP

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

Subject to,

$$\begin{aligned} x_1 + x_2 &\leq 12 \\ 5x_1 + 2x_2 &\leq 10 \\ 3x_1 + 8x_2 &\leq 12 \end{aligned}$$

And

$$x_1, x_2 \geq 0$$

OR

- a) You make monthly deposit of ₹ 100 into an annuity and after 30 years wish to accumulate ₹ 1,60,000. What annual rate compounded monthly will be required to do this? (5 Marks)
- b) At what rate of simple interest interest does a principal double itself in 5 years. (5 Marks)
- c) At what rate of compound interest per annum with ₹ 640 amount to ₹ 774.40 in 2 years. (5 Marks)
11. Find the points of maxima and minima of a function:

$$y = 2x^3 - 3x^2 + 6$$

OR

- (a) If a retail store has fixed cost of ₹ 150 and variable cost per unit is ₹ 175 and sells its product at ₹ 500 per unit
- i) Find the cost function
  - ii) What would be the revenue function be?
  - iii) What would be profit function? (8)
- (b) The market department of ABC company recommends manufactured and market a new school bag. The finance department provides the following cost function  $C(x) = 600 + 120x$ , where ₹ 600 is the estimated fixed cost and the estimated variable cost is ₹ 120 per bag. The revenue function is  $R(x) = 15x + 0.005x^2$
- Find:
- i) Marginal cost function
  - ii) Marginal revenue function

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(2021 Batch Onwards)

G 501 OE1.2

Reg. No. :

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St Aloysius College (Autonomous)

Mangaluru

B.Sc. Semester II – Degree Examination

May/June - 2023

PHYSICS - OPEN ELECTIVE

RENEWABLE ENERGY AND ENERGY HARVESTING

Time: 2½ hrs.

Max Marks: 60

## SECTION – A

Answer any **FOUR** of the following.

(4x2=8)

1. a) What is global warming?
- b) Explain AMPM standard.
- c) What are wind maps? Why it is used?
- d) Name the different types of geothermal resources.
- e) Expand OTEC.
- f) Give the formula to calculate present worth.

## SECTION – B

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

(4x10=40)

## UNIT-I

- 2.a) Explain the process through which sun produces energy. (6)
- b) What are air and vapour barriers? (4)
- 3.a) Explain water purification using solar energy. (6)
- b) Explain the advantage and disadvantages of renewable energy? (4)

## UNIT-II

- 4.a) Explain wind turbines based on its classification. (6)
- b) Write a short note on biogas. (4)
- 5.a) What are microalgae? Explain the components and methods of production. (6)
- b) Explain the sizing and tracking concept of PV cell (4)

## UNIT-III

- 6.a) Explain EGS. (6)
- b) How tides are produced? (4)
- 7.a) What are the advantages and disadvantages of hydrogen fuel? (6)
- b) Explain large scale hydro-power. (4)

## UNIT-IV

- 8.a) Explain the various environmental issues for any large renewable energy project (6)
- b) Write any four factors affecting the economics of renewable energy system (4)
- 9.a) What are the different utility concerns (6)
- b) Explain Life Cycle Costs (LCC) (4)

Contd...2

G 501 OE1.2

Page No.2

## SECTION –C

Answer any **THREE** from the following.

(3x4=12)

10. Calculate the energy for a single photon of electromagnetic radiation of wavelength 400nm. Given  $h = 6.625 \times 10^{-34}$ Js
11. Calculate the wind speed at 100m if the wind speed at 50m is 8m/s and shear exponent is 0.21
12. Find the power/area for an ocean current that is moving at 1.5m/s
13. A renewable energy system has the following costs and production:  
IC = Rs2,00,00,000 , FCR =8% , AOM =1% of IC/Year ,AEP =1,20,000kWh/yr Calculat COE

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(2021 batch onwards)

G 502 OE1.2

Reg. No.:

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St Aloysius College (Autonomous), Mangaluru

B.Sc. Semester II – Degree Examination

May/June -2023

CHEMISTRY - OPEN ELECTIVE

MOLECULES OF LIFE

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. (8×1=8)

1. a) Name the sugar present in grapes.
- b) What are non-reducing sugars?
- c) How does pH affect the enzyme action?
- d) Define enzyme inhibitor.
- e) Write any two biological importance of triglycerides.
- f) What is genetic code?
- g) What are the components of RNA?
- h) Define metabolism.
- i) Why ATP is called as "Energy Currency of the Cell"?

## PART - B

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

2. (i) What are carbohydrates? How are they classified?
- (ii) Write a note on mutarotation.
- (iii) Discuss the classification of amino acids based on structure.
- (iv) Explain amphiprotic nature of amino acids.
- (v) What is a peptide bond? Explain the formation of a dipeptide.
- (vi) Write a note on allosteric inhibition?
- (vii) Mention the biological importance of glycolipids.
- (viii) Write a note on lactic acid fermentation.
- (ix) Briefly explain the transcription process.

## PART - C

Answer any **SEVEN** of the following questions. (7×4= 28)

3. Write the Haworth's structure of cellulose and lactose.
4. Discuss the secondary structure of proteins.
5. Explain noncompetitive inhibition with example.
6. Discuss the substrate concentration and enzyme concentration on enzyme action.
7. Explain the Watson Crick model of DNA.
8. Write the Krebs cycle and mention the main points of the citric acid-Krebs cycle?
9. What is RNA? Explain the structure of RNA.
10. Explain anabolism and catabolism with suitable example.

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(2021 batch onwards)

G 503 OE1.2

Reg. No:

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**St Aloysius College (Autonomous)****Mangaluru****B.Sc. Semester II- Degree Examination****May/June - 2023****Mathematics (Open Elective)****Mathematics - II**

Time: 2½ hrs.

Max Marks: 60

**PART - A**Answer any **NINE** of the following:**(9 X 2 = 18)**

1. Verify whether the set  $\{1, 3, 4, 5, 9\}$  form a binary operation under multiplication modulo 11.
2. In the group  $(\mathbb{Z}_6, \oplus_6)$ , find  $2 \oplus_6 (4^{-1} \oplus_6 3^{-1})$ .
3. Let  $a, b, c \in G$ . If  $a * b = a * c$ , prove that  $b = c$ .
4. Find all the possible generators for the multiplicative group  $G = \{1, -1, i, -i\}$ .
5. Find the value of  $\frac{\partial z}{\partial x}$  at the point  $(1, 1, 1)$  if the equation  $yz - \ln z = x + y$  defines  $z$  as a function of  $x$  &  $y$ .
6. Check if  $w_{xy} = w_{yx}$  for  $w = \ln(2x + 3y)$ .
7. Find  $f_x, f_y$  if  $f(x, y) = (2x - 3y)^3$ .
8. Check whether  $r(x, y) = \frac{\sqrt{y+2\sqrt{x}}}{y+2x}$  is a homogeneous function. If yes, what is its degree?
9. If the circle  $C$  is parametrized by the equations  $x = \cos t$  and  $y = \sin t$ ,  $0 \leq t \leq 2\pi$ , then evaluate  $\int_C x^2 ds$ .
10. Evaluate  $\iint_R (100 - 6x^2y) dA$  over the rectangle  $R: 0 \leq x \leq 2, -1 \leq y \leq 1$ .
11. Find the area of the region  $R$  enclosed by the parabola  $y = x^2$  and the line  $y = x + 2$ .
12. Evaluate  $\int_0^1 \int_0^1 \int_0^1 (x^2 + y^2 + z^2) dz dy dx$ .

Contd...2

G 503 OE1.2

Page No. 2

**PART - B****UNIT I****Answer any TWO of the following:** (2 X 7 = 14)

1. a) Prove that the cube roots of unity form an abelian group under multiplication. (5)
- b) On  $\mathbb{R}^+$ , the set of all positive real numbers,  $*$  is defined by
 
$$a * b = \frac{ab}{2} \quad \forall a, b \in \mathbb{R}^+, \text{ find inverse of } 4. \quad (2)$$
2. a) Prove that intersection of two subgroups is also a subgroup. (5)
- b) Give an example to show that union of two subgroups may not be a subgroup. (2)
3. Find the orders of the elements of the additive modulo 7 group  $(\mathbb{Z}_7, +_7)$ .

**UNIT II****Answer any TWO of the following:** (2 X 7 = 14)

1. Find all the second order partial derivatives of  $f(x, y) = x^2y + \cos y + y \sin x$ .
2. If  $u = \cot^{-1} \frac{x+y}{\sqrt{x}+\sqrt{y}}$ , show that  $x \frac{\partial u}{\partial x} + y \frac{\partial u}{\partial y} + \frac{1}{4} \sin 2u = 0$ .
3. Expand the function  $f(x, y) = x^2 + xy + y^2$  by Taylor's theorem in powers of  $(x - 1)$  and  $(y + 2)$ .

**UNIT III****Answer any TWO of the following:** (2 X 7 = 14)

1. If the line  $C$  is parametrized by the equations  $x = 3 - 2t$  and  $y = 6 - 7t$ ,  $0 \leq t \leq 1$ , then find  $\int_C f(x, y) ds$  if
  - a)  $f(x, y) = x + y$  (3)
  - b)  $f(x, y) = y^3 - x^2$ . (4)
2. a) Find the area of the region  $R$  enclosed by the lines  $y = x$ ,  $y = \frac{1}{4}x$ , and  $y = 2$ . (3)
- b) Find the volume of the prism whose base is the triangle in the  $xy$ -plane bounded by the  $x$ -axis and the lines  $y = x$  and  $x = 1$  and whose top lies in the plane  $z = f(x, y) = 3 - x - y$ . (4)
3. Find the volume of the region in the first octant bounded by the coordinate planes, the plane  $y + z = 2$ , and the cylinder  $x = 4 - y^2$ .

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(2021 Batch Onwards)

G 505 OE1.2

Reg. No.:

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**St Aloysius College (Autonomous)**  
**Mangaluru**  
**Semester II – Degree Examination**  
**May /June – 2023**  
**COMPUTER SCIENCE (OPEN ELECTIVE)**  
**WEB DESIGNING**

Time: 2 ½ Hours.

Max Marks: 60

**PART –A**

1. Answer any **SIX** of the following. (6x2=12)
- What do you mean by a web browser? Give any two examples.
  - Mention any four features of messenger.
  - Expand i) HTML ii) HTTP
  - Mention any four attributes used in <TABLE> tag.
  - Write the use of SRC attribute in <IMG> tag.
  - List any four form input types in HTML.
  - What are stylesheets?
  - What does XML & CSS stands for?

**PART –B**Answer any **ONE FULL** question from each unit 12 marks each. (4x12=48)**UNIT – I**

- Write a note on evolution of Internet. (4)
  - What is instant messaging? Explain. (4)
  - Explain the advantages and disadvantages of email. (4)
- What is Electronic-mail? Explain. (4)
  - Explain any two applications of Internet. (4)
  - What is search engine? Explain. (4)

**UNIT – II**

- Explain the structure of HTML document with example. (4)
  - Explain any four HTML text formatting elements. (4)
  - Explain the features of HTML5. (4)
- Explain the various structural elements used in HTML5. (6)
  - What are lists? Explain different types with suitable example. (6)

**UNIT – III**

- Explain the different tags used in the creation of tables in an HTML page. (5)
  - What are hyperlinks? Explain different ways of creating hyperlinks with example. (4)
  - Write a note on canvas in HTML5. (3)

Contd...2

**G 505 OE1.2****Page No. 2**

7. a) Explain different form elements with suitable examples. (5)  
b) Explain the tags used in working with frames. (4)  
c) Explain the different attributes of <IMG> tag. (3)
- UNIT – IV**
8. a) Explain the structure of an XML document. (4)  
b) Explain the different ways to insert CSS to a HTML document. Give examples. (5)  
c) How do you change background of a web page using stylesheets? Explain. (3)
9. a) Explain different CSS selectors used for styling web pages. (5)  
b) Explain color and gradient properties in CSS with example. (4)  
c) Write the differences between HTML and XML. (3)

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(2021 batch onwards)

G 506 OE1.2

Reg. No.:

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**St Aloysius College (Autonomous)****Mangaluru****B.Sc. Semester II – Degree Examination****May/June - 2023****STATISTICS (Open Elective)****APPLIED STATISTICS**

Time: 2½ hrs.

Max Marks: 60

Note: Answer all parts.

**PART – A****I. Answer any FIVE of the following: (5x2=10)**

1. Define the index number and state one limitation of it.
2. Define price relative.
3. Mention the various steps that are involved in the construction of the consumer price index number.
4. State the formula to measure the population at time t.
5. Define fertility and mortality.
6. Define time series and mention any two examples.
7. Define the trend and explain with an example.

**PART – B****II. Answer any FIVE of the following: (5x6=30)**

8. Construct an index number by the weighted average of price relatives using  
i) Arithmetic Mean ii) Geometric Mean.

Commodity		A	B	C	D	E
Expenses		15	25	35	20	5
Price	2021	220	135	340	435	225
	2022	360	285	490	640	460

9. Calculate the consumer price index number for the following data by the family budget method:

Item	Expenses (%)	Price in 2020	Price in 2022
Food	40	150	180
Rent	20	150	160
Clothing	20	100	130
Fuel	10	120	125
Miscellaneous	10	160	190

10. Explain the different components of time series analysis.

Contd...2

G 506 OE1.2

Page No.2

11. Fit a linear trend to the following data and estimate the funds for the years 2024 and 2026.

Year	2015	2016	2017	2018	2019	2020	2021	2022	2023
Funds	147	191	213	254	296	393	418	475	500

12. Find 5 yearly moving averages for the following data:

Years	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sales (Rs. In Lakhs)	710	705	680	687	757	629	644	783	781	805	872

13. Find 6 weekly moving averages for the following data:

Years	2000	2001	2002	2003	2004	2005	2006	2007	2008
Exports	64.84	63.39	61.94	60.50	59.06	64.48	63.03	61.58	60.14

14. Calculate the Total fertility rate and General fertility rate for the following data:

Age(years)	Women Population	No. of births to women
15-19	6478	25
20-24	4255	575
25-29	7150	75
30-34	2480	132
35-39	7525	600
40-44	4240	190
45-49	7000	50

## PART - C

III. Answer any **TWO** of the following: (2x10=20)

15. Explain the various steps involved in the construction of a Consumer Price Index number.
16. Calculate Laspeyre's, Paasche's, Dorbish Bowley and Fisher's price index numbers for the following data:

Commodity	2022		2023	
	Price (Rs.)	Quantity (Kgs.)	Price (Rs.)	Quantity (Kgs.)
I	42	14	67	16
II	75	18	79	26
III	37	12	38	25
IV	25	15	40	24
V	49	18	55	26

Contd...3

G 506 OE1.2

Page No.3

17. Compute the Standardised death rate for villages A and B by taking village A as the standard population. Find which village is healthier.

Age group (years)	Village A		Village B	
	Population	Deaths	Population	Deaths
0-9	55000	345	80000	2200
10-19	44000	420	60000	1040
20-29	27000	270	50000	390
30-39	46000	580	25000	480
40-49	61000	280	65000	234
50-59	33000	760	46000	560
60 & above	97000	700	90000	999

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(2021 Batch Onwards)

G 507 OE 1.2

Reg. No:

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**St Aloysius College (Autonomous)****Mangaluru****B.Sc. Semester II– Degree Examination****May/June - 2023****BOTANY (Open Elective)****Plant Propagation, Nursery management and Gardening**

Time: 2 ½ 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 do you mean by transplants?
- 2) Write any two factors affecting seed viability.
- 3) Define airlayering.
- 4) What are Orthodox seeds?
- 5) Give any two objectives of gardening.
- 6) Define seed certification.
- 7) What is meant by hardening of plants?
- 8) List out any two applications of computer in land scaping.

**SECTION – B****II Answer any SIX of the following.****(6x5=30)**

- 1) Give an account on synthetic growth medium used in nursery.
- 2) Define seed dormancy. Explain causes and methods to break seed dormancy.
- 3) Explain the steps of vegetative propagation through cutting.
- 4) Describe briefly park and its components.
- 5) Explain the methods of manuring and watering in a garden.
- 6) Write notes on bonsai technique.
- 7) How to cultivate lady's finger plants?
- 8) Give an account on different seasonal activities to be followed in nursery.

**SECTION – C****III Answer any TWO of the following.****(2x10=20)**

- 1) Explain in detail the developing and maintenance of different types of lawns.
- 2) Explain the benefits of Green house, mist chamber, shed root, shade house and glass house.
- 3) Give an account on Gardening operations.
- 4) Write a brief note on general practices and building up of infrastructure for nursery.

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(2021 Batch onwards)

G 508 OE 1.2E

Reg. No.:

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St Aloysius College (Autonomous)

Mangaluru

B.Sc. Semester II – Degree Examination

May/June -2023

ZOOLOGY (OPEN ELECTIVE)

PARASITOLOGY

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.

(10X2=20)

- a) What are parasites? Give an example.
- b) Define symbiosis. Give an example.
- c) Name the hosts of *Giardia intestinalis* and *Trypanosoma gambiense*.
- d) Name the parasitic platyhelminthes and the disease cause by them.
- e) Write any two control measures of *Wuchereria bancrofti*.
- f) What are the different types of galls.
- g) Which is the parasitic behaviour of lice.
- h) What is the effect of vampire bat on host.
- i) Write any two advantages of molecular diagnosis.
- j) Name the serological technique use for diagnosis of endoparasites.
- k) What is a parasitoids?
- l) What is the parasitic behaviour of cookicutter shark?

## PART – B

II. Answer any FOUR of the following.

(4X5=20)

- a) Comment on commensalism and mutualism with relevant example.
- b) Explain the life cycle of *Entamoeba histolytica*.
- c) Explain the biology and importance of ticks.
- d) Describe the morphology of *Ascaris lumbricoides*.
- e) Write a short on DNA and RNA probe.
- f) Briefly explain the concept of molecular diagnosis for parasitic infections.

## PART – C

III. Answer any TWO of the following.

(2X10=20)

- a) Explain the morphology and life cycle of *Taenia solium*.
- b) Explain morphology, life cycle, pathogenicity, prophylaxis and control measures of *Trypanosoma gambiense*.
- c) Explain the nematode plant interaction with relevant example.
- d) Describe the immunoassay used for laboratory diagnosis of *G.intestinalis*.

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G 510 OE1.2

(2021 Batch onwards)

Reg. No. :

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**St Aloysius College (Autonomous)  
Mangaluru**

**B.Sc. Semester II – Degree Examination  
May/June - 2023**

**BIOCHEMISTRY - OPEN ELECTIVE  
PROTEINS AND ENZYMES**

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)
- What are zwitter ions?
  - What is Biocatalyst?
  - What are enzymes? Give example.
  - What is a peptide bond?
  - Write Michalis-Menten equation for Uni substrate reaction.
  - What is an isoelectric point of protein?
  - What is lyophilization?
  - What is the difference between SDS and Native PAGE electrophoresis?
  - Write the principle of ion exchange chromatography.
  - What are allosterism and co-operativity?
  - What is feedback inhibition?
  - What is dialysis?

**PART – B**

Answer any EIGHT of the following. (5X8=40)

- Classify proteins based on its structure.
- Explain the classification of enzymes with suitable example.
- What is enzyme kinetics? Write the significance of Km and Vmax.
- Explain the mechanism of Chymotrypsin.
- Explain the Ammonium sulphate fractionation technique.
- Explain molecular sieve chromatography.
- What are the application of Enzymes.
- Explain in detail about competitive inhibition of enzymes with diagram.
- Explain N-terminal analysis of protein by Sanger's method.

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(2021 batch onwards)

G 601 OE1.2

Reg. No.

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**St Aloysius College (Autonomous)  
Mangaluru**

Semester II– Degree Examination

May/June - 2023

**B.C.A. - OPEN ELECTIVE****APPLIED STATISTICS**

Time: 2½ hrs.

Max Marks: 60

**PART – A**Answer any **SIX** of the following.

(6x2=12)

- 1.a) What are Infant Mortality Rate and Maternal Mortality Rate?
- b) In a population consisting of 1,25,000 people the total number of deaths recorded as 3640 in a specific year. Then what is the Crude Death Rate?
- c) Distinguish between sample survey and census survey.
- d) List the uses of vital statistics.
- e) List down the properties of Regression lines.
- f) Given  $b_{xy} = -1/4$  and  $b_{yx} = -1/2$ , then what is the coefficient of correlation?
- g) Distinguish between Control charts for variables and attributes.
- h) Why do we need a OC curve in a sampling plan?

**PART – B**Answer any **ONE FULL** question from each unit.

(12x4=48)

**UNIT – I**

- 2.a) Briefly explain the methods of collection of vital Statistics and how it is used in the study of population growth? (6)
- b) On the basis of data given below obtain ASDR and CDR

Age group (years)	Under 9	9-20	20-30	30-40	40-50	50 and above
Population('000)	18	12	50	26	32	10
Total deaths	208	1950	1400	2020	900	680

(6)

- 3.a) Briefly Explain NRR, GRR, TFR with an example. (6)
- b) Compute Standardized Death Rates for the two populations A and B from the following Data.

Age (years)	Population A		Population B		Standard Population
	Population	Deaths	Population	Deaths	
0-14	22000	590	12000	28	10000
15-34	14000	220	30000	13	20000
35-54	60000	1200	62000	50	19000
55-74	28000	980	15000	35	18000
75 and above	11000	400	2500	60	8000

(6)

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## UNIT – II

- 4.a) Briefly explain any two of the non-probability sampling techniques with an example. (4)
- b) What is a questionnaire? Explain the characteristics of a good questionnaire. (4)
- c) What are non-Sampling errors? Explain the sources of non-Sampling Errors. (4)
- 5.a) Briefly explain the principle behind Stratified Sampling Techniques. How do we apply it? (6)
- b) When do we go for Systematic Sampling? Discuss about two types of Systematic Sampling Techniques. (6)

## UNIT – III

- 6.a) 10 employees participated in a training program and were assessed in two stages A and B. Stage A is based on operating skills and the Stage B is based on time management. Scores are given below. Obtain Spearman's Rank Correlation Coefficient between the scores obtained.

Stage A	50	54	52	56	58	62	70	66	70	68
Stage B	52	54	52	56	58	62	66	68	70	72

(6)

- b) The following data gives the age and blood pressure (BP) of 10 sports persons.

Name:	A	B	C	D	E	F	G	H	I	J
Age (X):	42	36	55	58	35	65	60	50	48	51
BP (Y):	98	93	110	85	105	108	82	102	118	99

- i. Find regression equation of Y on X and X on Y
- ii. Find the correlation coefficient (r) using the regression coefficients.
- iii. Estimate the blood pressure of a sports person whose age is 45. (6)

- 7.a) For the sample price (X) and quantity in demand (Y) obtain a suitable regression equation to estimate the quantity in demand when the price is ₹ 700

X	100	150	200	250	300	350	400	450	500	550
Y	49	45	44	39	38	37	34	33	30	29

(6)

- b) How scatter diagram can be used to study the correlation between two variables? Explain. (6)

## UNIT – IV

- 8.a) When do we say that the process is under Statistical Quality Control? Explain the causes of variation in any process. (4)
- b) Suppose C is the number of defects and  $\bar{c} = 2.8$ . Obtain the control limits for C Chart. (4)
- c) Explain the construction of R Chart when standards are not specified. (4)
- 9.a) Distinguish between Producers risk and Consumers risk. (4)
- b) What do you mean by Single Sampling and Double Sampling Plan? Explain. (4)
- c) What are Process Control and Product Control in quality control process? Explain. (4)

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