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St Aloysius College (Autonomous)

Mangaluru

Semester III - P.G. Examination

November / December - 2023

OPEN ELECTIVE (UNDER CBCS)

FILM APPRECIATION
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SECTION-A

Time : 3 Hours

Max. Marks : 70

Write essays on any THREE of the following.

(3x15=45)

1. Discuss the various elements of film review with suitable examples.
2. Evaluate the impact of nonlinear storytelling in cinema. How do films that employ non-linear narratives challenge traditional notions of time and space?
3. Analyze the role of set design in character development and storytelling. Choose a specific film and discuss how the sets and environments inhabited by the characters reflect their personalities, motivations, and the themes of the narrative.
4. Define the term "mise en scène" in the context of cinema. Provide a historical overview of its origins and evolution in filmmaking. How does it differ from other aspects of film production?
5. Analyze the relationship between sound and character development in cinema. How can the audio elements and BGM enhance or reflect a character's personality and motivations? Choose a film scene to illustrate your points.

SECTION-B

Write short notes on any FIVE of the following.

(5x5=25)

- a. Pacing of a film.
- b. Purpose of a film treatment
- c. Parallel Editing
- d. Film storytelling
- e. Protagonist and Antagonist
- f. Close-Up (CU) and Long Shot (LS)
- g. Subtext in cinema

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**St Aloysius College (Autonomous)
Mangaluru**

**Semester III – P.G. Examination – M.A. ECONOMICS
November /December - 2023**

OPEN ELECTIVE (UNDER CBCS)

CONTEMPORARY INDIAN ECONOMY

Time: 3 Hours

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SECTION - A

Max. Marks: 70

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

1. What are the causes of rural urban Migration? Explain the impact of rural urban migration in India.
2. Explain the features of new industrial policy of India.
3. Discuss the challenges and criticisms associated with fiscal sector reforms and propose recommendations for further improvements.

SECTION – B

Answer any FOUR questions of the following: (4x6=24)

4. Explain the key components of the National Population Policy and how they aim to address population-related challenges in India.
5. Examine the demographic trends that have influenced the labor force in India. How has the working-age population changed over the years?
6. Define demographic dividend and its significance for India's economic growth?
7. Explain the impact of Globalisation on Indian Economy.
8. How have land reforms aimed at reducing landlessness and promoting land redistribution?
9. Describe the main sources of revenue for both the central and state governments in India.

SECTION – C

Answer any FOUR questions of the following: (4x4=16)

10. Define poverty. Explain the types of poverty.
11. Explain how Inclusive growth is an integral part of sustainable development.
12. What do you mean by MNCs? Write the advantages and disadvantages of MNCs.
13. Write a short note on Goods and service Tax.
14. What is FDI? Explain the types of FDI.
15. Write a short note on Balance of payments

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ST ALOYSIUS COLLEGE (AUTONOMOUS), MANGALURU

THIRD SEMESTER - P.G. EXAMINATION

November/December - 2023

Open Elective (Under CBCS)

Interpreting Literature

Time : 3 Hours

Max. Marks : 70

UNIT - I

I. Answer any ONE of the following in about 300 words each. (1x15=15)

1. Discuss the thematic implications of "The Shield of Achilles".
2. What literary devices or techniques does T.S Eliot use to convey the emotional and spiritual struggles of the Magi?
3. Can you recall some specific details about the speaker's emotions in "Lady Lazarus"?

UNIT - II

II. Answer any ONE of the following in about 300 words each. (1x15=15)

1. What is the setting of the play *Arms and the Man*, and how does it influence the events that unfold?
2. Can you explain the loophole that Portia uses to potentially save Antonio?
3. What are the central conflicts and motivations of the characters in the play *Arms and the Man*?

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UNIT - III

III. Answer any ONE of the following in about 300 words each. (1X15=15)

1. How does Charles Lamb convey the sense of loss and longing in the essay?
2. How does Lamb's relationship with Alice affect his perspective on fatherhood?
3. What are some of the key themes that emerge across the essays in "Imaginary Homelands"?

UNIT - IV

IV. Answer any ONE of the following in about 300 words each. (1x15=15)

1. How does the novel portray the challenges and adventures of childhood?
2. What role does the character of Rajam play in Swami's life?
3. How does the theme of friendship play a significant role *swami and friends*.

UNIT - V

V. Write short notes on any TWO of the following. (2x5=10)

1. Fictional town, Malgudi
2. "Aunt Helen"
3. Imagist poetry.
4. Sergius

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St Aloysius College (Autonomous)
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Semester III – P.G. Examination

November/December – 2023

OPEN ELECTIVE (UNDER CBCS)

HUMAN RIGHTS AND SOCIAL DEFENCE

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Time: 3 hrs.

Max Marks: 70

(3x10=30)

SECTION – A

- Answer any **THREE** questions.
- Each question carries **TEN** marks.
- Answer should not exceed **400** words.

- Describe the cultural rights as guaranteed in Universal Declaration of Human Rights.
- Explain the procedures and powers of special courts in dealing the cases under POCSO Act, 2012.
- Explain the key elements in right to equality.
- Explain the concept of environmental justice and its relation to human rights.
- National Human Rights Commission regulates and protects human rights. Explain.

SECTION – B

(2x20=40)

- Answer any **TWO** questions.
- Each question carries **TWENTY** marks.
- Answer should not exceed **800** words.

- Evaluate the impact of civil society initiatives in advocating and influencing human rights policies.
- Discuss the services and resources childline and helpline for elderly can offer.
- Child trafficking and Child labour are the forms of child right violation. Explain.
- Describe the rights of minorities in India and examine the violation of their human rights.

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St. Aloysius College (Autonomous)
Mangaluru
Semester III – P.G. Examination - M.Com
November/December – 2023

Open Elective (Under CBCS)

ENTREPRENEURIAL DEVELOPMENT

Time: 3 hrs

Max Marks: 70

SECTION – A

Answer any FIVE questions out of seven questions.

(5×4=20)

1. List some key entrepreneurial values and attitudes.
2. What are the essential ingredients for a business plan to be considered comprehensive and robust?
3. How does social entrepreneurship in India contribute to solving pressing social and environmental issues?
4. Describe the difficulties that entrepreneurs encounter in India?
5. "Compare and contrast general partnerships and sole proprietorship, highlighting key differences in terms of liability, management, and capital contributions."
6. What is intellectual property right ?
7. How do you construct an effective Marketing Plan?

SECTION – B

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Answer any FOUR questions out of six questions.

(4×10=40)

8. Describe the challenges that limit the progress of women in entrepreneurship?
9. Describe the different types of entrepreneurs.
10. How do social entrepreneurs empower individuals and communities to drive positive change?
11. What do you understand by 'Manpower Planning'? What factors should be kept in mind while planning for manpower in small scale enterprises?
12. What role do Entrepreneurship Development Programs play in fostering a culture of self-employment and small business ownership in India?
13. Enumerate the various sources working capital?

SECTION – C

(Compulsory)

(1×10=10)

14. Apple Computers has always been the underdog in an industry dominated by giants but the genius of Steve Jobs, its founder and Chief executive, is that he has managed to make what is essentially a rather boring technical product a lifestyle choice, for teens to technology geeks to business executives. This has been achieved by not just including leading edge technology in its Macs, Powerbooks, and iPods, but by creating desirable products through design, innovative retail strategies and grassroots market appeal. Jobs has been particularly effective in leveraging limited marketing budgets to gain maximum publicity, often through partnership such as those with Volkswagen and Pepsi. In 2004, Apple took steps with the introduction of the \$99 iPod Shuffle and \$499 Mac Mini to extend its appeal to an audience that has not so far been able to afford its products. Apple's weakness, as with many entrepreneurial organizations, is closely linked to the personality of its entrepreneurial CEO. Job is passionate, often not politically correct and has not always selected the best team of executives to make the best of Apple's ideas.
 - a) How can an entrepreneur with limited resources create intangible benefits for customers?
 - b) State the qualities found in Steve jobs that made him an successful entrepreneur.

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St Aloysius College (Autonomous)
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Semester III – P.G. Examination

November / December - 2023

OPEN ELECTIVE
CLINICAL DRUG DEVELOPMENT AND IPR

Time: 3 Hours.

Max Marks: 70

SECTION - A

I Write short notes on any FIVE of the following. (5x3=15)

1. Using a flow chart, give an overview of the drug development process.
2. Discuss the purpose and importance of stability studies in drug formulation.
3. What is the purpose and structure of a Case Report Form (CRF) in clinical research.
4. What are the different phases of clinical trials?
5. Explain briefly the fundamental principles underlying the US patent system.
6. Describe the significance of including claims in a patent application.
7. Define LD50 (Lethal Dose 50) and ED50 (Effective Dose 50) in toxicology.
8. Write a note on industrial designs.

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SECTION – B

II Write explanatory notes on any FIVE of the following (5x5=25)

9. Explain the components of an Informed Consent Form (ICF).
10. Describe the types of invention which are not patentable in India with suitable examples
11. Discuss the goals and methodologies associated with each type of clinical research.
12. Explain the importance of GCP in ensuring the quality and integrity of clinical trials.
13. Describe the ethical considerations associated with animal studies in drug development.
14. Explain pharmacodynamics and its role in drug discovery process
15. Explain legislature regulating IPRs in India.
16. Explain Biopiracy with two case studies.

SECTION – C

III Answer any THREE of the following: (3x10=30)

17. Describe the key components of a laboratory following GLP.
18. Discuss how ICH-GCP guidelines are applied globally and fundamental principles of ICH-GCP
19. Discuss the benefits of geographical indications and methods to obtain geographical indications of patent rights.
20. Assess the animal model systems for pre-clinical research.
21. List some key historical events or incidents that prompted the need for regulations in clinical research.

ST ALOYSIUS COLLEGE (AUTONOMOUS) MANGALURU

SEMESTER III - PG EXAMINATION

NOVEMBER/DECEMBER - 2023

OPEN ELECTIVE (UNDER CBCS)

EVOLUTION AND ECOLOGY

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Time : 3 Hours

Max. Marks : 70

I. Answer any TEN sub-divisions of the following:

(10x2=20)

1. Define peripatric speciation.
2. List key principles of Lamarckism in the theory of evolution.
3. State the concept of modern synthetic theory of evolution.
4. Who was Charles Darwin and what is he known for in the field of evolutionary biology?
5. Explain the concept of a food web and how it differs from a food chain?
6. Define autotrophs and heterotrophs in the context of trophic interactions.
7. Define the concept of a meta-population in ecology.
8. Why might islands be particularly rich in endemic species?
9. What is the primary goal of wildlife management?
10. Explain the importance of the water cycle in maintaining Earth's ecosystems.
11. Define bioaccumulation in the context of environmental pollution.
12. Explain the difference between weather and climate.

II. Answer any SIX of the following:

(6x5=30)

13. Evaluate the evidence supporting the theory of natural selection.
14. Apply the concept of gene flow and genetic drift to explain evolution.
15. Explain the concept of Adaptation with example.
16. Explain the concept of behavioral ecology and its significance in understanding animal behavior. Provide an example of a behavioral adaptation in animals.

17. Define mutualism and provide two real-world examples of mutualistic interactions between species.
18. Provide a real-world example of a keystone species and explain its ecological significance.
19. Explain the concept of trophic levels in a freshwater aquatic ecosystem. Provide examples of organisms at each trophic level and describe their roles in the ecosystem.
20. Describe the process of ecological succession in ecosystems.

III. Answer any TWO of the following:

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(2x10=20)

21. Analyze the Darwins theory of evolution.
22. Evaluate the factors contributing to the development of endemic species in isolated ecosystems. Discuss the importance of conserving these endemic species.
23. Compare and contrast the characteristics, biodiversity of tropical rainforest and desert. Discuss their unique climate, vegetation, and animal adaptations.
24. List and briefly describe four major categories of environmental pollutants. Provide an example of a specific pollutant within each category, and explain its potential environmental impact.

St Aloysius College (Autonomous), Mangaluru**SEMESTER III – P.G. Examination****November/December -2023****Open Elective (Under CBCS)****OPTICAL METHODS OF ANALYSIS****Time: 3 Hours****Max. Marks: 70****PART – A**1. **Answer any SEVEN sub divisions of the following: (7x2=14)**

- a) In Atomic Absorption Spectroscopy (AAS), why is a flame commonly used as the atomization source?
- b) What is oxide formation interference in AAS?
- c) Describe the role of a monochromator in AAS.
- d) In biomedical research, what can affect the accuracy of fluorimetric measurements when analyzing biological samples?
- e) Give two special applications of chemiluminescence
- f) How does a filter fluorimeter work?
- g) What factors affect Scattering Instruments?
- h) Give two points of Difference between Nephelometry And Turbidimetry
- i) Provide an example of an application where nephelometry is commonly used for the analysis of suspended particles in a real-world scenario

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PART – B

Answer any FOUR of the following choosing at least one full question from each unit: (4x14=56)

UNIT – I

2. a) Explain the applications of FES. (4)
 - b) Design an experimental procedure for the determination of lead (Pb) in drinking water using AAS. Outline the necessary steps and precautions. (5)
 - c) Compare and contrast absorption and emission spectrum. (5)
- 3.a) What are the steps involved in the procedure of AAS analysis? (5)
 - b) You have a sample containing unknown concentrations of sodium and potassium. Describe how you would use flame emission spectroscopy to determine the concentrations of these elements. (5)
 - c) Discuss the importance of using a blank solution in flame emission spectroscopy. (4)

UNIT – II

- 4.a) Compare and contrast internal conversion and intersystem crossing in terms of their mechanisms and outcomes in the Jablonski Diagram. (5)
- b) Explain the precautions that are to be taken during the analysis of fluorescent molecules. (5)
- c) Explain the effect of the nature of the molecules on the fluorescence spectra (4)

- 5.a) Explain the selection of an excitation wavelength for fluorimetric analysis (4)
- b) Explain the process of deactivation with the help of the Jablonski diagram (5)
- c) Discuss the role of quenching in fluorescence analysis. (5)

UNIT - III

- 6.a) Evaluate the significance of optical activity in the pharmaceutical industry. Discuss any challenges associated with enantiomeric drugs (5)
- b) Describe one Application of optical Rotation Technique. (5)
- c) How do you analyse Phosphates in water by Turbidimetry? (4)
- 7.a) Explain the working of fluorimetry with a diagram. (4)
- b) Define nephelometry and turbidimetry; and explain how they are related to the measurement of light scattering in analytical chemistry (5)
- c) Explain the working principle of a polarimeter, including how it measures the optical rotation of a substance. Provide a diagram if necessary. (5)

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**ST ALOYSIUS COLLEGE (AUTONOMOUS),
MANGALURU**

THIRD SEMESTER - P.G. EXAMINATION

November/December - 2023

OPEN ELECTIVE (UNDER CBCS)

BASIC COUNSELLING SKILLS

Time : 3 Hours

Max. Marks : 70

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

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(5x2=10)

1. What is self concept?
2. Give four examples for defense mechanism.
3. What do you understand by the term initial disclosure as part of counselling process
4. What is reflection of feeling?
5. How psychotherapy differs from counselling?
6. What is attending skill?
7. What are the core conditions of counselling

II. Answer any **FOUR** of the following.

(4x5=20)

8. Elucidate the various kinds of reinforcements and punishments with examples.
9. What are the ethical principles given by American Psychological Association (APA) ?
10. Discuss the various types of responses that are given by the counsellor.
11. What is observing skill in counselling?. Elaborate
12. Describe the different types of counter transference.
13. What are the characteristics of an effective counsellor? Discuss.

III. Answer any **FOUR** of the following.

(4x10=40)

14. Describe the cognitive approach to counselling.
15. Elaborate on exposing and imposing values in the counselling session with examples.
16. Active Listening is an essential skill for the counsellor. Discuss.
17. Write a note on questioning and responding skill.
18. What are the various types of challenging clients? Give examples
19. What are defense mechanisms? Describe different defense mechanism with examples.

ST ALOYSIUS COLLEGE (AUTONOMOUS) MANGALURU
 Semester III - P.G. Examination - M.Sc. Mathematics
 November/December - 2023
OPEN ELECTIVE (UNDER CBCS)
DIFFERENTIAL EQUATIONS AND APPLICATIONS

Time : 3 Hours

Max. Marks : 70
(14x5=70)

Answer FIVE FULL questions

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- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| 1. a) Solve : $\frac{dy}{dx} = \tan\left(\frac{y}{x}\right) + \frac{y}{x}$ | 4 |
| b) Solve : $x^2 dy + y(x+y) dx = 0$ | 5 |
| c) Solve : $\frac{dy}{dx} = \frac{y + \sqrt{x^2 + y^2}}{x}$ | 5 |
| 2. a) Solve the following: | 6 |
| 1. $\sec^2(x) \tan(y) dx + \sec^2(y) \tan(x) dy = 0$ | |
| 2. $(1 + x^2) dy - xy dx = 0$ | |
| b) An inductance of $2H$ and a resistance of 20Ω are connected in series with an emf of $100V$. If the current is zero at time, $t = 0$, find the current at the end of $t = 0.01$ seconds. | 8 |
| 3. a) Solve the following: | 8 |
| 1. $\frac{dy}{dx} + y \cot(x) = \cos(x)$ | |
| 2. $(x^3 - 3xy^2) dx + (y^3 - 3x^3y) dy = 0$ | |
| b) Solve: $(x^4 - 2xy^2 + y^4) dx - (2x^2y - 4xy^3 + \sin(y)) dy = 0$ | 6 |
| 4. a) Solve : $\frac{d^2y}{dx^2} - 2\frac{dy}{dx} + 2y = e^x \tan x$ | 8 |
| b) Solve: $D^2(D^2 + 4)y = 96x^2$ | 6 |
| 5. a) Solve : $\frac{d^2y}{dx^2} - 2\frac{dy}{dx} + y = x \sin x$ | 5 |
| b) Solve $\frac{d^2y}{dx^2} + 6\frac{dy}{dx} + 9y = 5e^{3x}$ | 4 |
| c) Solve the initial value problem : $\frac{d^2y}{dx^2} - 2k\frac{dy}{dx} + k^2y = 0$ where k is constant; Given:
$y = \sqrt{2}$ and $\frac{dy}{dx} = k\sqrt{2}$ when $x = 0$. | 5 |
| 6. a) Solve $2z + p^2 + qy + 2y^2 = 0$ using Charpit's method. | 5 |
| b) Solve $(D^2 + DD' - 6D'^2) = x + y$ | 4 |
| c) Solve the linear partial differential equation $\frac{\partial^2 z}{\partial x^2} + 2\frac{\partial^2 z}{\partial x \partial y} + \frac{\partial^2 z}{\partial y^2} = \sin(2x + 3y)$. | 5 |
| 7. a) Solve $r - t \cos^2 x + p \tan x = 0$ | 5 |
| b) Determine whether the following equations are hyperbolic, parabolic and elliptic? | 4 |
| a). $x^2 \frac{\partial^2 u}{\partial t^2} - \frac{\partial^2 u}{\partial x^2} = u$ | |
| b). $t \frac{\partial^2 u}{\partial t^2} + 2 \frac{\partial^2 u}{\partial x \partial t} + x \frac{\partial^2 u}{\partial x^2} + \frac{\partial u}{\partial x} = 0$ | |
| c). $x \frac{\partial^2 u}{\partial t^2} + t \frac{\partial^2 u}{\partial x \partial t} + \frac{\partial^2 u}{\partial t^2} = 0$ | |

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- c) Solve $(D^2 + DD' - 6D'^2)z = x^2 \sin(x + y)$. 5
8. a) Solve $z = f(x^2 + y^2)$ 4
- b) Solve $(4D^2 - 4DD' + D'^2)z = 16 \log(x + 2y)$ 5
- c) Solve the partial differential equation $x(y^2 + z)p - y(x^2 + z)q = z(x^2 - y^2)$. 5

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St Aloysius College (Autonomous)

Mangaluru

Semester III – P.G. Examination

November/December – 2023

OPEN ELECTIVE (UNDER CBCS)

EXPERIMENTAL TECHNIQUES

Time: 3 Hours

Max. Marks: 70

PART - A

Answer all questions choosing one from each unit. (3x18=54)

UNIT -I

1. a) What is Q switching and electrooptic effect in laser? Explain. (8)
 b) Briefly discuss the construction and working of Nd:YAG laser with the energy level diagram. (10)

OR

2. a) Derive the expression for Harmonic Generation of light. Explain SHG process. (10)
 b) Write a note on optical mixing of light. (8)

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UNIT -II

3. a) With the help of neat diagram discuss the working of a turbo molecular pump. Compare its performance with an oil diffusion pump. (10)
 b) What do you mean by conductance, pumping speed and throughput in a vacuum system? (8)

OR

4. a) Give the classification of vacuum on the basis of physical parameters. (8)
 b) Explain principle and working of Penning gauge. Mention its limitation. (10)

UNIT -III

5. a) Discuss the uses of AFM. Explain its advantages and disadvantages. (8)
 b) Explain construction, working and applications of TEM. (10)

OR

6. a) How do electron microscopes differ from optical microscope? Explain the nature of electron interaction with matter. (8)
 b) Discuss in detail construction and working principle of SEM. (10)

PART - B

Answer any FOUR questions: (4x4=16)

7. a) Explain self-focusing of light.
 b) What is the role of rotary pump in high vacuum system?
 c) Explain the Z scan technique.
 d) Discuss low energy electron diffraction.
 e) Explain the working of ion laser.
 f) Write a note on vacuum coating.

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SEMESTER III- P.G.Examination

November/December -2023

Open Elective (Under CBCS)

**BIO-INORGANIC CHEMISTRY, GREEN CHEMISTRY AND
ENVIRONMENTAL CHEMISTRY**

Time: 3 Hours

Max.Marks:70

PART-A

1. Answer any **SEVEN** sub divisions of the following: (7×2=14)
- a) What is the name of the protein that binds oxygen in muscle cells and facilitates its diffusion from blood vessels to mitochondria.
 - b) Deficiency of ceruloplasmin leads to anaemia Justify.
 - c) Outline the Deprotection reaction which is carried out on solid mineral supports.
 - d) What are some common reagents used in conventional chemical synthesis reactions?
 - e) What are the major pollutants found in wastewater from the sugar industry?
 - f) How does toxic chemicals effect on the activity of enzymes?
 - g) How is transferrin recycling important in iron metabolism?
 - h) List any two diseases and their causes that highlight the importance for opting Green Chemistry.
 - i) What are carcinogens and give two examples of environmental carcinogens.

PART-B

Answer any **FOUR** of the following choosing at least one full question from each unit. (4×14=56)

UNIT-I

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2. a) Explain the significance of the heme group in cytochromes. (4)
 - b) Discuss the ecological and evolutionary significance of hemocyanin in certain marine animals. (5)
 - c) Explain the structure and function of transferrin. (5)
3. a) Discuss the advantages of using iron-based hemerythrin in oxygen transport in low-oxygen environments. (5)
 - b) How do metal ions act as cofactors in metalloenzymes, and what is their importance in enzymatic reactions? (5)
 - c) Write a note on Ferritin. (4)

UNIT II

4. a) Explain Deprotection and synthesis of nitriles from aldehydes based on the reactions carried on solid mineral supports (5)
- b) Write a note on Zero Technology. (4)
- c) Give any 4 comparisons between conventional and green methods of chemical synthesis. (5)
5. a) Discuss the significance of atom economy in pharmaceutical and drug development. Provide any one example for 100% atom economical reaction. (5)
- b) Write a short note on the following: (4)
- (a) Green solvents (b) Goals of Green chemistry
- c) Explain any five basic principles of Green chemistry. (5)

UNIT III

6. a) Describe Colorimetric Technique for the analysis of O_3 . (5)
- b) Propose a comprehensive strategy for controlling gaseous emissions from a power plant, focusing on both sulfur dioxide (SO_2) and nitrogen oxides (NO_x). (5)
- c) Discuss the use of nanotechnology in the environmental studies. (4)
7. a) Discuss the causes of water pollution. (5)
- b) Describe photochemical smog. (4)
- c) Describe the biochemical effects of Arsenic. (5)

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St Aloysius College (Autonomous)
Mangaluru

Semester III – P.G. Examination – M.Sc. Food Science and Technology
November/December - 2023

Open Elective (Under CBCS)

BASIC OF FOOD SAFETY AND LABELLING

Time: 3 hrs.

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Max Marks: 70

I. Answer any SIX of the following: (6x3=18)

1. Discuss any 2 current challenges to food safety.
2. Recall two examples of chemical food hazards.
3. Define food adulteration and provide a brief overview of why it is a concern in the food industry.
4. Define front of pack nutrition labelling.
5. What is the significance of the Food Safety and Standards Act, 2006, in the context of regulating food safety in India?
6. Differentiate between Corrective actions and Deviations
7. How does allergen cross contamination taking place? Give examples

II. Answer any FOUR of the following: (4x7=28)

8. Differentiate between food quality control and food quality assurance. Explain the principles and importance of QC.
9. How do Good Manufacturing Practices (GMP) help in ensuring product consistency and safety in food manufacturing?
10. Describe the concept of traceability in the context of the food supply chain. How does traceability enable the tracking and tracing of food products from farm to fork?
11. Discuss in detail about the declaration of ingredients and additives in food labels
12. Discuss in detail on the role of food labelling in food traceability. Mention the technologies used in traceability

III. Answer any TWO of the following: (2 x12=24)

13. Explain different pests affecting food safety and their methods and measures.
14. Explain the principles of GHP. Evaluate the effect of implementing GHP by food industry during food borne outbreak
15. What is HACCP? Explain the seven principles of HACCP.

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Mangaluru

Semester III – P.G. Examination – M.Sc. Food Science Nutrition and Dietetics
November - 2023

Open Elective (Under CBCS)

HEALTH AND FITNESS
ST.ALOYSIUS COLLEGE
PG Library
MANGALORE-575 003

Time: 3 hrs.

Max Marks: 70

I. Answer any SIX of the following: (6x3=18)

1. Identify two dietary recommendations specifically related to gender-based nutritional requirements.
2. What is the significance of body mass index (BMI) in evaluating nutritional status.
3. Write a short note on balance and coordination in physical activities. Provide an example of each
4. List three primary sources of fuel used by the body during exercise, and briefly describe how they are mobilized.
5. Identify the normal fasting blood glucose range and the diagnostic criteria for diabetes.
6. Write a short note on any three alternatives systems for health and fitness.
7. Define dietary modifications and their importance in sports nutrition.

II. Answer any FOUR of the following: (4x7=28)

8. Describe the psychological factors that contribute to the formation of food habits. Explain how understanding these factors can help individuals make healthier food choices.
9. Discuss the relationship between dietary carbohydrates and endurance exercise, highlighting the importance of carbohydrate loading before endurance events.
10. Discuss the role of hydration and energy supplements for pre-game, during and post-game activity.
11. Construct a sample daily meal plan that incorporates nutraceutical-rich foods for overall health promotion.
12. Evaluate the impact of dietary choices on the overall effectiveness of a space mission, military operation, or sea voyage.

III. Answer any TWO of the following: (2 x12=24)

13. Evaluate the role of cultural competence in healthcare and its significance in providing equitable health services. Provide examples of cultural competence in practice.
14. Compare and contrast the major approaches to fitness and health management, including medical, holistic, and behavioral approaches.
15. Critically assess the role of cultural factors in shaping individuals' attitudes toward physical fitness and nutrition in the context of weight control.