PO 106.2 Reg. No.

St Aloysius College (Autonomous)

Mangaluru

Semester II – P.G. Examination

July - 2022

OPEN ELECTIVE (Under CBCS)

TRAVEL JOURNALISM

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

SECTION – A

Write essays on any THREE of the following. **(3x15=45)**

1. Explain the role of photography and photo essays in travel journalism.
2. Discuss the responsibility of mass media in promoting sustainable tourism.
3. Analyze the narratives on 'Incredible India' in various media.
4. What are the techniques of travel vlogging? Explain any two travel vlogs.
5. Discuss the role and impact of social media in promoting tourism.

SECTION - B

Write short notes on any FIVE of the following. **(5x5=25)**

a. Anita Nair
b. Travel e-zines.
c. Eco- Tourism
d. Medical Tourism
e. Travel Blogs
f. National Geography
g. William Dalrymple

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PO 118.2

Reg. No. :

St Aloysius College (Autonomous)

Mangaluru

Semester II – P.G. Examination

July/August - 2022

Open Elective (Under CBCS)

BANKING AND FINANCE

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

SECTION - A

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

1. Critically examine the role of development banks in India.
2. What is merchant banking? Explain the structure and services provided by them.
3. Explain the role of RBI in promoting financial inclusion.

SECTION – B

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

4. Briefly discuss the concept of universal banking.
5. Explain the role of NABARD in promoting agricultural development.
6. Discuss the meaning and characteristics of Forfeiting.
7. Explain the advantages and defects of bills market schemes in India.
8. Briefly discuss the role of commercial banks in rural credit.
9. What is Micro finance? Examine the merits and demerits of Micro finance.

SECTION – C

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

10. Briefly explain functions of EXIM Bank.
11. Distinguish between developmental banking and commercial banking.
12. Write a note on meaning and features of Hire purchase.
13. Briefly discuss meaning and types of Mutual Funds in India.
14. Write a short note on structure of credit cooperatives.
15. Explain the concept of SHGs.

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PO 128.2

Reg. No. | | | | | | |

St Aloysius College (Autonomous)
Mangaluru
Semester II – P.G. Examination
July - 2022
Open Elective Under CBCS
READING LITERATURE

Time: 3 hrs. **Max Marks: 70**

UNIT - I

Answer any FOUR questions from the following: **(4x15=60)**

1. Examine the theme of 'horror and suspense' in "The Tell-Tale Heart".
2. What are the main differences between Minnie Foster and Minnie Wright in Susan Glaspell's, "Trifles"?
3. "The story "The Necklace" by Guy de Maupassant teaches us many lessons which form the crux of human values". Discuss.
4. How does Shakespeare glorify his friend in "Sonnet 18: Shall I Compare thee to a Summer's Day"?
5. Discuss the poem, "Death Fugue" as a critique of the Holocaust.
6. Critically examine the themes of survival and inspiration in Maya Angelo's, "Still I Rise".
7. Explain why Desiree had no option, but to die in the short story, "Desiree's Baby".

UNIT - II

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

1. "Harlem"
2. "Aunt Jennifer's Tigers"
3. The title, "Broken Images"

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PO 205.2

Reg. No. :

St Aloysius College (Autonomous)

Mangaluru

Semester II– P.G. Examination

Open Elective (Under CBCS)

July/August – 2022

INIDAN SOCIAL PROBLEMS AND INTERVENTIONS

Time: 3 hrs. **Max Marks: 70**

(3x10=30)

SECTION – A

a. Answer any THREE questions.

b. Each question carries TEN marks.

c. Answer should not exceed 400 words.

1. State the features of Right to Education Act, 2009.
2. Explain the impact of Child Labour on health of the children.
3. Highlight and explain the causes for the violence against women.
4. Elucidate the meaning and characteristics of youth.
5. Describe the concept and types of unorganized labour.

(2x20=40)

SECTION – B

a. Answer any TWO questions.

b. Each question carries TWENTY marks.

c. Answer should not exceed 800 words.

6. State the contemporary social problems in India and explain its impact on societal development.
7. Describe the Governmental and Voluntary organizations' interventions to the problems of women.
8. Highlight the causes of unemployment and explain its impact on youth.
9. Explain the Governmental and Voluntary organizations' interventions to the problems of unorganized labour.

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PO 318.2

Reg. No.

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

July - 2022

OPEN ELECTIVE

PERSONAL FINANCE AND INVESTMENT PLANNING

Time: 3 hrs. **Max Marks: 70**

SECTION – A

Answer any FIVE of the following: **(5x4=20)**

1. Distinguish between Financial Asset and Real Asset.
2. List the objectives of investments.
3. Explain the relevance of time value of money in financial decision.
4. What are Mutual Funds? How it is formed and managed?
5. What is Rights Issue of shares?
6. What are the major strategies in Equity Investment?
7. Explain the Depository Services.

SECTION – B

Answer any FOUR of the following: **(4x10=40)**

8. What is Money Market? Explain the various Money Market instruments available for investors?
9. Explain the pros and cons of investing in Mutual Funds.
10. Discuss the "Twelve Pillars of Wisdom" spelt out by John Bogle.
11. Neon Ltd is borrowing ₹10,00,000/- at an interest rate of 15% and the loan is to be repaid in 5 equal instalments payable at the end of each of the next 5 years. Prepare the loan amortization schedule.
12. What are the objectives of Personal Financial Planning? Describe the Personal Financial Planning Process.
13. Briefly explain the common errors in Investment Management.

SECTION C (Compulsory) **(1x10=10)**

14. Mr. Singh, aged 35 years is a Government employee. His wife aged 32 years is a marketing manager in a Private Company. They stay in Mumbai and have a 10 months old son Sanjay.

    Their financial goals are:

    i) They want to buy a flat with a down payment of ₹ 10,00,000 after 1 year.

    ii) They want to purchase a new car worth ₹ 5,00,000 after 2 years.

    iii) They also need to save for son's MBA abroad. This goal is achieved when he turns to 20.

    Their total annual family income is ₹ 13,20,000, while annual expenses are at ₹ 5,71,000.

    Advice on the type of investments Mr. Singh should look for.

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PO 359.2 Reg. No. | | | | | | |

St Aloysius College (Autonomous)

Mangaluru

Semester II – P.G. Examination

July - 2022

OPEN ELECTIVE (Under CBCS)

E - Business

Time: 3 hrs. Max Marks: 70

SECTION – A

Answer any FIVE of the following. (5x4=20)

1. List the strength and advantages of E-business.
2. Explain the role of middleware in E-business systems.
3. How will you attract visitors to your site and ensure repeat visitors?
4. How will you take care of taxation of internet products?
5. What is the role of digital signatures in ensuring security over the Internet?
6. What is a firewall? How it ensures security of your systems.
7. What is an open trading protocol?

SECTION – B

Answer any FOUR of the following. (4x10=40)

8. Explain IT infrastructure involved in setting up E-business.
9. Discuss the various intellectual property considerations you will take care while protecting business assets over the web.
10. What is Search Engine Optimization? What is the information you will add to your website as part of optimization?
11. Explain various prepaid and postpaid payment systems over the net.
12. Describe the various legal issues to be addressed while setting up E-business?
13. Explain Enterprise Resource Planning software with examples.

SECTION – C (Compulsory) (1x10=10)

14. Describe the various steps involved in developing and deploying an E-business system.

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PO 513.2

Reg. No: | | | | | | |

St Aloysius College (Autonomous)
Mangaluru
Semester II– P.G. Examination
July – 2022

OPEN ELECTIVE
QUALITY ASSURANCE AND QUALITY CONTROL IN PRODUCT DEVELOPMENT

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

Note: Draw neat labeled diagrams/schematic sketches/structures wherever necessary

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

1. Ishikawa Diagram
2. Principles of ISO 9000
3. Schedule M
4. Counterfeit pharmaceutical product
5. Self-inspection in GMP
6. Fundamentals of good documentation practices
7. Quality by Design (QbD)
8. Benchmarking

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

9. Explain the ISO 14000 series and its significance.
10. Discuss the importance of corrective and preventive actions in quality control.
11. Elaborate upon the subsystems of QSIT.
12. Discuss the principles of GMP? Add a note on cGMP.
13. Describe the importance of personnel training and hygiene as a GMP.
14. What are SOPs? Explain its importance with a suitable example.
15. Explain the process of evaluation and procedures involved in handling complaints and recalls.
16. Write a detailed account on Force Field Analysis as a Quality Tool.

III. Answer any THREE of the following. **(3×10=30)**

17. Discuss the importance of recording and retention of documents in manufacturing of finished products.
18. What is Total Quality Management? Explain the process steps of TQM.
19. Write a detailed account on Hazard Analysis and Critical Control Point (HACCP).
20. Discuss the concepts of equipment qualification and validation- Validation Master Plan (VMP).
21. What are fundamental practices of good documentation? Explain their types.

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PO 519.2

Reg. No:

St Aloysius College (Autonomous)
Mangaluru
Semester II- P.G Examination
July - 2022
Open Elective (Under CBCS)
BIOCHEMISTRY OF DISEASES

Time: 3 Hours Max. Marks: 70

I. Answer any TEN sub-divisions of the following: (10x2=20)

1. Name any two communicable and non- communicable diseases.
2. Mention the location of a) Kidneys b) Liver.
3. What are synovial and cerebrospinal fluids?
4. Distinguish between disease and syndrome. Give examples.
5. What are drugs of abuse? Give examples.
6. How waist hip ratio is calculated to assess the healthiness of the person?
7. What are vasodilators? Give examples.
8. Mention any two symptoms of cholera and hepatitis.
9. Name any two chemotherapeutic drugs.
10. Name any two anti-inflammatory drugs.
11. What are chelating agents?
12. Mention the cause of chikungunya and Dengue.

II. Answer any SIX of the following: (6x5=30)

13. Describe the classification of essential nutrients
14. Describe the types of antidotes
15. Write short notes of professional hazards in farmers and high duty machine workers
16. What is a health diet? Write a note on Atkins diet.
17. Explain solvent toxicity.
18. Describe the mechanism of action of the drug used in the treatment of peptic ulcer.
19. Discuss the tests required for general health checkup.
20. Explain energy value of food.

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

21. Explain in detail the pharmacokinetic (PK/PD) correlation.
22. Describe in detail the mechanism of action of chlorothiazide with its adverse effects.
23. Give an account on bacterial infections in humans.
24. Explain in detail the actions of various antimicrobial agents.

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PO 549.2

Reg. No:

St Aloysius College (Autonomous)
Mangaluru
Semester II – P.G. Examination
July - 2022
Open Elective (Under CBCS)
ANALYTICAL TECHNIQUES

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

PART - A

1. **Answer any SEVEN sub-divisions of the following:** **(7x2=14)**

a) Write the Haworth structures of glucose and fructose.
b) Write the Chemical name of Vitamin C and Vitamin K
c) What are artificial colorants? Give examples.
d) What is Electrochemical cell? Give an example.
e) What is Potentiometric titration? Give an exmple
f) What is conductometric titration? Give an example.
g) Write the structure and name of the monomers of Nylon 6,6.
h) Mention any two differences between thermoplastic and thermosetting Polymers.
i) Calculate the molecular weight of polyvinyl chloride whose D.P is 500.

PART – B

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

UNIT- I

2. a) Give a brief account on non-permitted food colorants. **(5)**
   b) Discuss the sources and biological functions of Vitamin A and Vitamin B **(5)**
   c) How do you analyze chloral hydrate in toddy sample? **(4)**

3. a) Write a short note on Polysaccharides. **(5)**
   b) Discuss the estimation of methyl alcohol in alcoholic beverages. **(4)**
   c) Explain a note on artificial sweeteners. **(5)**

UNIT - II

4. a) Write a note on i) types of Electrochemical Cells ii) types of Electrolytes **(5)**
   b) Discuss the principle and applications of Potentiometric titration **(5)**
   c) Explain the mechanism of mass transport **(4)**

5. a) write a note on i) Indicator electrode ii) reference electrode **(5)**
   b) Discuss the principle and applications of Conductometric titration **(5)**
   c) Explain the theory and applications of cyclic voltammetry **(4)**

UNIT – III

6. a) Explain the determination of molecular weight of polymer by Osmometry. **(5)**
   b) Give an account on classification of polymers **(4)**
   c) Discuss the factors that influence the glass transition temperature in polymers **(5)**

7. a) How do you characterise the polymers using DSC and DTA **(6)**
   b) Discuss the use of GPC in polymer fraction and molecular weight determination **(4)**
   c) Write the structure of Nylon 6, PVC, Polystyrene and phenol formaldehyde resin. **(4)**

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PO 558.2

Reg. No. | | | | | | |

St Aloysius College (Autonomous)
Mangaluru
Semester II – P.G. Examination
July - 2022
Open Elective (Under CBCS)
BEHAVIOUR & SOCIETY

Time: 3 hrs. **Max Marks: 70**

I. Answer any FIVE of the following. **(5×2=10)**

1. What is Impression Formation?
2. What is self regulation?
3. Mention three components of Sternberg's model of love.
4. Define Attitude.
5. Differentiate between anger and aggression.
6. Mention any two ways of identifying deceptions in others
7. What is Prosocial behavior?

II. Answer any FOUR of the following. **(4×5=20)**

8. Write a note on self regulation.
9. What are the sources of information used in forming impression of others?
10. How does prejudice emerge?
11. What factors cause aggression?
12. What are the steps involved in making a decision to help in emergency. explain
13. How the concept of self is developed?

III. Answer any FOUR of the following. **(4x10=40)**

14. Can attitudes be changed? Elaborate.
15. Explain the different internal and external factors that influence interpersonal attraction.
16. Discuss Sternberg triangular model of love.
17. Explain the sources of self knowledge.
18. What are the different techniques that can help in reducing the prejudice?
19. Critically evaluate the impact of conformity.

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PO 567.2

Reg. No.

St Aloysius College (Autonomous)
Mangaluru
Semester II - P.G. Examination - M.Sc. Mathematics
July - 2022
OPEN ELECTIVE (UNDER CBCS)
Basic Tools in Mathematics

Time: 3 hrs. **Max Marks: 70**

Note: Answer any five full questions. **(15x4=70)**

1. a) Prove that there is no rational number whose square is 7.
   b) Prove that the set of all rational numbers is a countable set.
   c) If $\alpha \in \mathbb{R}, X, Y \in \mathbb{R}^n$ then prove the following:
   (i) $\|\alpha X\| = |\alpha| \|X\|$
   (ii) $|X \cdot Y| \le \|X\| \|Y\|$
   (iii) $|X + Y| \le \|X\| + \|Y\|$. **(3+4+7)**

2. a) Verify whether the following functions are bijective:
   (i) $f: \mathbb{R} \to \mathbb{R}$ given by $f(x) = x^4 + 3, \ \forall x \in \mathbb{R}$
   (ii) $f: \mathbb{R} \to \mathbb{R}$ given by $f(x) = \frac{1}{2} - 3x, \ \forall x \in \mathbb{R}$
   b) Suppose $\{s_n\}$ and $\{t_n\}$ are real sequences such that $\lim_{n\to\infty} s_n = s$ and $\lim_{n\to\infty} t_n = t$ then prove that (i) $\lim_{n\to\infty} (s_n + t_n) = s + t$ and (ii) $\lim_{n\to\infty} (s_n \cdot t_n) = s \cdot t$.
   c) Derive a necessary condition for the convergence of a series. Determine the convergence of the series $\sum_{n=1}^{\infty} (2n)$. **(4+6+4)**

3. a) Verify whether the given functions are continuous on the real line:
   (i) $f(x) = \begin{cases} 0 & if \ x \le 0 \\ 2 - x & if \ 0 < x < \frac{1}{2} \\ 2 & if \ x = \frac{1}{2} \\ 3 - 2x & if \ \frac{1}{2} < x < 1 \\ x^2 & if \ 1 \le x \end{cases}$
   (ii). $f(x) = \frac{|x|}{x}, \ \forall x \in \mathbb{R}$
   b) Find the points of discontinuity of $f(x) = \dfrac{x^2 - x - 6}{x^2 - 14x + 24}$. **(7+2)+5)**

4. a) Define differentiability of a function
   b) Verify the differentiability of the following functions at the given point:
   (i) $f(x) = \begin{cases} 3x + 1 & if \ x < 2 \\ x + 2 & if \ x \ge 2 \end{cases}$ at $x = 2$
   (ii) $f(x) = x^2$ at $x = 11$.
   c) Find $\dfrac{dy}{dx}$ if (i) $y = \sqrt{x\sqrt{x\sqrt{x + \cdots}}}$ and (ii) $x = \dfrac{1}{1+t}, \ y = \dfrac{t}{1-t}$. **(2+6+6)**

Contd...2

5. a) Define maximum and minimum values of a function. Find the maximum and minimum values of $f(x) = x^4 - 6x^3 - 17x^2 - 12x + 105$.
   b) State mean value theorem.
   c) Find the intervals where the given function $f(x) = 2x^3 - 3x^2 - 36x + 7$ is increasing or decreasing. **(7+2+5)**

6. a) Define elementary matrices. Prove that elementary matrices are invertible and their inverse is elementary.
   b) Show that a square matrix A having a row or column of zeros is not invertible.
   c) Prove that any $m \times n$ matrix can be reduced to row echelon form by applying finitely many elementary row operations. **(6+2+6)**

7. a) Solve the linear system of equations $AX = B$

   where $A = \begin{bmatrix} 1 & 1 & 2 & 1 \\ 1 & 1 & 2 & 6 \\ 1 & 2 & 5 & 2 \end{bmatrix}$, $B = \begin{bmatrix} 5 \\ 10 \\ 5 \end{bmatrix}$

   b) Find all solutions of the homogeneous system $AX = 0$, where $A = \begin{bmatrix} 1 & 2 & 1 \\ 0 & 3 & 5 \\ 0 & 0 & 4 \end{bmatrix}$

   c) Find the eigenvalues and the corresponding eigen vectors of the matrix $A = \begin{bmatrix} 3 & 2 \\ 1 & 4 \end{bmatrix}$ **(6+3+5)**

8. a) Let A and B be two $n \times n$ matrices. Show that $\det(AB) = \det(A)\det(B)$.
   b) Let A be an $n \times n$ matrix. Show that A is invertible if and only if $\det(A) \neq 0$. **(8+6)**

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PO 577.2

Reg. No. | | | | | | |

St Aloysius College (Autonomous)

Mangaluru

Semester II – P.G. Examination

July - 2022

Open Elective (Under CBCS)

BIO PHYSICS

Time: 3 hrs. **Max Marks: 70**

PART - A

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

UNIT- I

1. a) Discuss the interaction of charged particles with matter. **(8)**
   b) Explain the principle of working of GM counters. **(8)**
   c) What is the difference between radioactivity and radiation? **(2)**

OR

2. a) Explain the principle of working of Semiconductor detectors. Mention its advantages over Gas filled detectors. **(8)**
   b) Discuss different modes of gamma ray interaction with matter. **(6)**
   c) What are the different methods of detection of slow neutrons? **(4)**

UNIT- II

3. a) Discuss the direct and indirect effects of radiation on DNA. **(8)**
   b) Describe how the changes in DNA may become cancerous. **(6)**
   c) What is the difference between stochastic and deterministic effects of radiation? **(4)**

OR

4. a) Discuss Numerical and structural chromosomal aberrations. **(8)**
   b) Explain radiation induced DNA damage repair mechanism. **(8)**
   c) What are genes? **(2)**

UNIT- III

5. a) Discuss Watson and Crick model of DNA. **(8)**
   b) Explain the radiolysis of water and importance of free radicals in radiation damage. **(8)**
   c) What are Haemoglobin and Myoglobin molecules? **(2)**

OR

6. a) Discuss the radiation damage in Nucleic acids. **(8)**
   b) Explain how enzyme functions, photo synthesis and carcinogenesis activity can be studied using ESR technique. **(6)**
   c) Explain nucleic acid. **(4)**

Contd...2

Answer any FOUR questions. **(4x4=16)**

7. a) Explain working NaI(Tl) scintillation detector.

b) Derive Bethe formula for the specific energy loss of particles.

c) Distinguish between physical and chemical dosimetry.

d) Explain the radiation induced Apoptosis.

e) Discuss chromosome mutation and gene mutation.

f) Explain the biological application of delocalization of electrons in molecules.

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PO 589.2

Reg No.

St Aloysius College (Autonomous)
Mangaluru
Semester II – P.G. Examination
July -2022
Open Elective (Under CBCS)
SPECTRAL METHODS OF ANALYSIS

Time: 3 hrs. Max Marks: 70

PART-A

Answer SEVEN sub divisions of the following : (7x2=14)

1. a) How will you account for the variations in ultraviolet absorption for the following?

   i) CH_3Cl, λ_{max} = 173 nm ii) CH_3Br, λmax = 204 nm

   b) Give the equation for calculating the frequency of vibration of a diatomic molecule.

   c) What is meant by fingerprint region in IR Spectroscopy?

   d) 3-pentanone shows a peak at m/z 57 in its EI-MS whereas, 2-pentanone gives a peak at m/z 86. Comment on this.

   e) How methyl propionate and ethylacetate are distinguished by their PMR spectroscopy?

   f) The proton decoupled spectrum of a tribromobenzene consists of two signals only. What tribromobenzene is it?

   g) Explain any two factors affecting the X-ray intensity.

   h) Write the Wierl equation and mention its significance.

   i) Outline the importance of Debye Scherrer equation.

PART – B

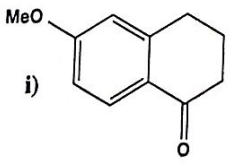
Answer any FOUR of the following choosing at least one full question from each unit : (4x14=56)

UNIT - I

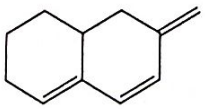
2. a) 4-Nitroaniline exhibits in the K-band a pronounced red shift which is not observed in ortho and meta isomers. Explain. (4)

   b) Explain any two factors which affect the position of UV bands. (6)

   c) Discuss the Woodword Fisher rules and predict the the λ_{max} for the following.



i)


ii)

(4)

3. a) How can you distinguish among hexane, 1-hexene & 1-hexyne on the basis of IR spectroscopy? (4)

   b) How would you distinguish between the following pairs by IR spectra studies?

   i) cis & trans-2-butene

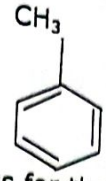
   ii) Acetaldehyde & acetone

   iii) 1,2 substituted benzene and 1, 4 substituted benzene (6)

   c) Discuss the factors which affect the band positions & intensities of peaks in IR spectroscopy. (4)

Contd...2

4. a) Predict the signal and the multiplicities of the following compounds.

a) CH3-CH2-C(=O)-OH b) 

(5)

b) Discuss the fragmentation pathways for the following systems with suitable examples.
i) Alcohols ii) Aldehydes (4)

c) Why spin spin splitting occurs in PMR spectroscopy? Discuss the intensity and nature of peaks in 1,1,2-trichloroethane. (5)

5. a) Discuss the factors influencing chemical shift values in NMR spectroscopy. (4)

b) Write the structures of all possible isomers of alcohols with the molecular formula $C_4H_{10}O$ and predict the proton decoupled ^{13}C NMR signals in each. (5)

c) Discuss the basic fragmentation types and rules in Mass spectrometry with suitable examples. (5)

UNIT - III

6. a) Discuss the Debye-Scherrer method of X-ray diffraction studies of crystals. (5)

b) Write a note on TEM technique. (4)

c) Give the comparative account of X-ray and electron diffractions. (5)

7. a) Write a note on SEM Technique. (5)

b) What are X-rays ? How are they produced ? (5)

c) Discuss the theory of electron diffraction. (4)

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PO 598.2

Reg. No: | | | | | | |

St Aloysius College (Autonomous)
Mangaluru
Semester II – P.G. Examination
July -2022
OPEN ELCTIVE (Under CBCS)
Essentials of Food Science

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

I. Answer any SIX of the following **(6 ×3 =18)**

1. Write a short note on types milk.
2. Write a short note on dairy plant sanitation and hygiene conditions.
3. Write about Bran / Pericarp.
4. Comment on ginger processing.
5. Write a note on adulteration of spices.
6. Write a short note on pre and post-harvest operations in fruits and vegetables.
7. Write 3 points each on Protein and fat in Poultry.

II. Answer any FOUR of the following **(4 ×7=28)**

8. Explain in detail about pasteurization process.
9. Mention about Energy, Carbohydrates, Protein, Fats, Minerals, Vitamins and Glycemic index in pulses.
10. Discuss on hypobaric storage.
11. Explain structure of egg (Shell, Shell membrane, Egg white, Egg yolk)
12. Explain the processing of cardamon.

III. Answer any TWO of the following **(2×12 =24)**

13. Mention the role of ingredients in cake making. (Liquids, Shortening, Sugar, Eggs, Leavening agents)
14. Explain 2 methods of slaughtering of meat. Explain ageing and tenderisation of meat.
15. Elaborate on milk proteins and their types.

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PO 818.2

Reg. No: | | | | | | |

St Aloysius College (Autonomous)
Mangaluru
Semester II - P.G. Examination
July . 2022
OPEN ELCTIVE (Under CBCS)
BASIC NUTRITION

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

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

1 Mention the Psychological & social functions of food
2 Write a short note on Trans fatty acids
3 Write a note on concept of protein balance
4 Classify minerals with example.
5 Differentiate nutraceuticals and functional food.
6 Write a short note on measurement of energy value of foods.
7 Write a note on Obesity and its causes

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

8 Comment on diabetes
9 What are the physiological functions of iron? Comment on causes, clinical manifestations, diagnosis and treatment for Iron deficiency anemia?
10 Discuss about the of role of ω-3, ω-6 fatty acids in health and disease
11 Discuss about the RDA and its uses
12 Discuss about energy requirements and its estimation.

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

13 Discuss in detail about ABCD methods used in nutritional assessment
14 Write the RDA and sources for vitamin A and Elaborate on its functions and deficiency.
15 Answer the following:
   a) Explain in detail the classification of protein
   b) Discuss about Underweight with emphasis on Etiology, body composition and Body Mass Index (BMI).

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