Regd No:_____   Room No:_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II SEMESTER END EXAMINATIONS

Class   : I MBA   Max Marks   : 70
Subject   : Management   Pass Mark   : 28
Title of Paper : Marketing Management   Duration   : 3 Hrs
Paper Code   : R20MBA201/R22MBA201   Paper Time   : 9am to 12pm
W.E.F   : 2020-21   Date   : 17/07/2023

SECTION – A

I. Answer any FIVE of the following Questions.   5X3=15M

1. (a) Value Chain

    (b) Green Marketing

    (c) Marketing Mix

    (d) Objectives of Pricing

    (e) Skimming Price

    (f) Marketing Communications Mix

    (g) Indirect Channel

    (h) Marketing Audit

SECTION –B

II. Answer ALL the following Questions   5X8=40M

2. (a) 'Marketing starts and ends with customers' Explain this statement with relevance to the Marketing Concept.

(OR)

   (b) Briefly explain – E-Marketing and Green Marketing.

3. (a) Explain the bases of Market Segmentation.

(OR)

   (b) Describe the phases of Product Life Cycle.

4. (a) Explain the steps in designing the Integrated Marketing Communication Strategy.

(OR)

   (b) Discuss the tools of Sales Promotion for Consumer Goods.

5. (a) Explain the functions of Marketing Channels.

(OR)

   (b) Describe different issues in the Channel Management.

6. (a) Discuss briefly different types of Controlling Marketing effort in an Organisation.

(OR)

   (b) Describe the Consumer Rights granted by the Consumer Protection Act.

(P.T.O)

III. Answer the following Question   **1X15=15M**

7. A few Companies in the Pharma Industry like Bharat Bio-Tech are actively involved and engaged in producing and distributing the Vaccine for the Corona Virus by expanding the production capacity and establishing Production Plants in different States of the Country.

   Analyse the Marketing approach followed by the Bharat Bio-Tech in terms of – Research, Market Segmentation, Vaccine Development, Pricing, Distribution and Promotion

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II SEMESTER END EXAMINATIONS

Class : I MBA

Subject : Management

Title of Paper : Human Resource Management

Paper Code : R20MBA202 / R22MBA202

W.E.F : 2020-21

Max Marks : 70

Pass Mark : 28

Duration : 3 Hrs

Paper Time : 9am to 12pm

Date : 19/07/2023

SECTION – A

I. Answer any FIVE of the following Questions.   5X3=15M

1. (a) Role of HR Manager

    (b) Job Analysis

    (c) Different Wage & Salary

    (d) Exit Interview

    (e) HR Policies

    (f) Induction

    (g) Employee Welfare

    (h) Mergers

SECTION –B

II. Answer ALL the following Questions   5X8=40M

2. (a) Explain briefly the objectives and functions of Human Resource Management?

(OR)

(b) Bring out the Line and Staff responsibilities in the organizations.

3. (a) Briefly write on various sources of Recruitment?

(OR)

(b) What is the importance and role of Human Resource Planning in an organization.

4. (a) What is the role of training in the organization. Write various methods of training?

(OR)

(b) Explain the procedure for evaluating Employee Performance? Analyze the various methods of Performance Appraisal?

5. (a) Define Compensation Management? What are factors affecting wage / salary levels?

(OR)

(b) What is meant by Career? What are the various steps in Career Planning?

6. (a) What is the changing role of HR in Knowledge Era.

(OR)

(b) Define QWL? Briefly describe the specific issues in Quality of Work Life?

(P.T.O)

SECTION –C

7. Case Study   1X15=15M

CRR Industries Ltd., Eluru is producing electric bulbs, water coolers, air coolers and refrigerators. Recently it added a new line of production i.e., electric motors both for domestic and agricultural purposes. It needed one electric engineer with B.Tech., qualification to look after the new plant producing electric motors. Presently five electric engineers with B.E., qualification as Assistant Engineers are working in the existing plant. The company advertised for the post of Chief Engineer (Electrical) for its new plant. It received twelve applications out of which five are from the Assistant Engineers working in the existing plant.

The company used techniques of preliminary interviews, tests, final interview and medical examination and finally selected Mr.C.B.Sastry, employed in the existing plant of the company. He is fourth in the seniority list of the Assistant Engineers in the present plant. The company served the appointment order to Mr.Sastry and he joined as Chief Engineer in the way plant. But the three Assistant Engineers in the existing plant moved the issue to the court of law contesting that the selection of Mr.C.B.Sastry is not valid as he is not the senior one among the Assistant Engineers in the existing plant.

Questions: (a) What would be the Management's version in the case

(b) Predict the court judgement regarding this issue

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class	: I MBA	Max Marks	: 70
Subject	: MANAGEMENT	Pass Mark	: 30
Title of Paper	: FINANCIAL MANAGEMENT	Duration	: 3 Hrs
Paper Code	: R22MBA203	Time	: 9am to 12pm
W.E.F	: 2022-23	Date	: 21/07/202?

SECTION-A

I. Answer any FIVE of the following Questions   5X4=20M

1. Present value
2. Wealth maximization
3. Financial leverage
4. Cost of capital
5. EOQ
6. Dividend policies
7. DCF Techniques

SECTION-B

II. Answer any FIVE of the following Questions   5X8=40M

8. Discuss changing role of finance mangers.

(OR)

9. What is Financial Forecasting? How it is done? Explain.

10. Explain briefly types of ⸱ ⸱ ⸱ leverages.

(OR)

11. Discuss how EBIT and EPS are analyzed?

12. Explain the Traditional and MM theories of capital structure in brief.

(OR)

13. Company A and B are two similar businesses with similar business risks. Company A is unlevered whereas Company B is levered with Rs. 2,00,000 debenture @ 5% interest rate. Both the companies earn Rs. 50,000 before tax income. The after-tax capitalization rate is 10% and the corporate tax-rate is 40%. Calculate the market value of two firms.

14. Explain the types of working capital and discuss the sources of finance for working capital.

(OR)

15. Discuss the key aspects and elements of cash and receivables management.

16. Explain the causes, effect and remedies of under capitalization

(OR)

17. " The consequences of over capitalization is so far serious than under capitalization". Discuss

[P.T.O]

Case Study-compulsory

III. Answer the following questions   1X10=10M

18. Case Study :

A firm whose cost of capital is 10% is considering two mutually exclusive projects X and Y, the details of which are

COST	YEAR	PROJECT X	PROJECT Y
	0	70,000	70,000
CASH IN FLOW	1	10,000	50,000
	2	20,000	40,000
	3	30,000	20,000
	4	45,000	10,000
	5	60,000	10,000

Compute the Net Present Value at 10%, Profitability Index and Internal Rate of Return of the two projects.

Room No: _____
Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
II – SEMESTER END EXAMINATIONS

Class : I MBA
Subject : MANAGEMENT
Title of Paper : Entereprenuership&Small Business Management
Paper Code : R22MBA204
W.E.F : 2022-23

Max Marks : 70
Pass Mark : 30
Duration : 3 Hrs
Time : 9am to 12pn
Date : 24/07/2₂

SECTION-A

I. Answer any FIVE of the following Questions 5X4=20M

1. Explain Types of Entrepreneurs
2. Explain Functions of Entrepreneur
3. What is Industry Analysis?
4. What is project report?
5. What is Sickness in SSI units?
6. Explain Seed Capital
7. Explain NSIC

SECTION-B

II. Answer any FIVE of the following Questions 5X8=40M

8. Explain recent trends in women entrepreneurship

(OR)

9. Explain types of start-up firms.
10. Explain components of effective business model.

(OR)

11. Explain how to write a Business plan
12. Explain in detail venture capital

(OR)

13. Explain the preparation of project report
14. Explain role of small enterprises in economic development.

(OR)

15. Explain in detail Export Oriented Units.
16. Explain SFCs

(OR)

17. Explain CII in detail

SECTION-C
Case Study-compulsory

III. Answer the following questions 1X10=10M

18. Case Study :

Prepare a business plan for manufacturing a FMCG product of your choice. Emphasize on ethical code of conduct while designing the business plan.

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class	: I MBA	Max Marks	: 70
Subject	: Management	Pass Mark	: 30
Title of Paper	: **Research Methodology & IPR**	Duration	: 3 Hrs
Paper Code	: **R22MBA205**	Time	: 9am to 12pm
W.E.F	: 2022-23	Date	: 26/07/2023

SECTION-A

I. Answer any FIVE of the following Questions   5X4=20M

1. What do you mean by literature review? State its purpose.
2. What is secondary data? Explain its sources.
3. Briefly explain need for research ethics.
4. What is a patent? What inventions are patentable?
5. Short note on administration of patent system.
6. What is plagiarism? Mention the common types of plagiarism.
7. What is hypothesis? State its characteristics.

SECTION-B

II. Answer any FIVE of the following Questions   5X8=40M

8. What is research? Elucidate motivation in research.

(OR)

9. Define research process. Describe the various steps in research process.
10. Define sampling. What are the various sampling techniques commonly used by researchers?

(OR)

11. What is data collection? Explain data collection methods and techniques for primary data.
12. What is report writing? Explain its significance and different steps in report writing.

(OR)

13." Reliability and validity are the two most important and fundamental features in the evaluation of any measurement instrument or tool for a good research". Justify.
14. Explain the nature and features of intellectual property rights (IPR).

(OR)

15. Describe the procedure for grants of patents.
16. Write a brief review on IPR developments for the past five years in India.

(OR)

17. Discuss the development of IPR Laws in India.

SECTION-C
Case Study-compulsory

III. Answer the following questions   1X10=10M

18. **Case Study :**

What is testing of Hypothesis? State the purpose of Hypothesis testing. Enumerate Hypothesis formulation and testing procedure.

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class	: I MBA	Max Marks	: 70
Subject	: Management	Pass Mark	: 30
Title of Paper	: Operations Research	Duration	: 3 Hrs
Paper Code	: R22MBA206	Time	: 9am to 12pm
W.E.F	: 2022-23	Date	: 28/07/2023

SECTION-A

I. Answer any FIVE of the following Questions   5X4=20M

1. State the limitations of operations research.

2. What is duality of LPP?

3. What do you mean by balanced transportation problem?

4. State the main characteristics of game theory.

5. What is simulation? Why is it used?

6. State any four applications of operations research in industry.

7. What are the basic differences between PERT and CPM

SECTION-B

II. Answer any FIVE of the following Questions   5X8=40M

8. What do you mean by operations research? Discuss the scope and significance of operations research.

(OR)

9. Discuss the application of operation research in managerial decision making.

10. What is simplex method? Explain its application in operations research and issues in this method.

(OR)

11. Use simplex method to solve the following L.P.P.

Maximize
$$Z = 4x_1 + 10x_2$$
subject to constraints:
$$2x_1 + x_2 \leq 50$$
$$2x_2 + 5x_2 \leq 100$$
$$2x_3 + 3x_3 \leq 90$$
$$x_1, x_2 \geq 0$$

12. Solve the following transportation problem by using Vogel's approximation method.

		1	2	3	4		
	1	21	16	25	13	11	
Source	2	17	18	14	23	13	Availability
	3	32	27	18	41	19	
		6	13	12	15	43	

Requirement

[P.T.O]

13. What do you mean by transportation model? Give mathematical formulation of a transportation problem.

14. Explain decision theory and its application.

<div align="center">(OR)</div>

15. find the optimal solution for the assignment problem with the following cost matrix:

Salesman	Area			
	W	X	Y	Z
A	11	17	8	16
B	9	7	12	6
C	13	16	15	12
D	14	10	12	11

16. Determine the range of value of p and q that will make the payoff elements a_{22} a saddle point for the game whose payoff matrix (a_{ij}) is given below:

<div align="center">Player B</div>

Player A
$$\begin{pmatrix} 2 & 4 & 5 \\ 10 & 7 & q \\ 4 & p & 8 \end{pmatrix}$$

<div align="center">(OR)</div>

17. Discuss process and application of simulation to different management problems.

<div align="center">

SECTION-C

Case Study-compulsory
</div>

III. Answer the following questions   1X10=10M

18. Case Study

A T.V. repairman finds that the time spent on his jobs has an exponential distribution with mean 30 minutes. If he repairs sets in the order in which they came in, and if the arrival of sets is approximately Poisson with an average rate of 10 per 8-hour day, what is repairman's expected idle time each day? How many jobs are ahead of the average set just brought in?

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class	: I MBA	Max Marks	: 70
Subject	: Management	Pass Mark	: 30
Title of Paper	: **CONSUMER BEHAVIOUR** (II)	Duration	: 3 Hrs
Paper Code	: **R22MBA207**	Time	: 9am to 12pm
W.E.F	: 2022-23	Date	: 31/07/2023

SECTION-A

I. Answer any FIVE of the following Questions   5X4=20M

1. Consumer Research
2. Perception
3. Functions of family
4. Social Class
5. Extensive problem solving behavior
6. Pricing strategies
7. Test Marketing

SECTION-B

II. Answer any FIVE of the following Questions   5X8=40M

8. Define the concept of Consumer Behavior? What is its relation with other disciplines?

(OR)

9. Describe in detail the profile of Indian consumer. Explain how firms can understand the needs of Indian consumers?

10. Explain how personality factors affect attitude formation.

(OR)

11. What is learning? Explain various theories of Learning and their applications.

12. What is the role of Family in Consumer Decision-Making process?

(OR)

13. Explain various types of Consumer Relevant Groups

14. Elucidate the Nicosia and Howard-Sheth Models of consumer behavior.

(OR)

15. What do you mean by innovation? Explain the elements and process of innovation.

16. Explain Consumer behavior and product strategy.

(OR)

17. Explain Consumer behavior and distribution channel strategy.

SECTION-C
Case Study-compulsory

III. Answer the following questions

18. Case Study :   1X10=10M

Yamaha Automobile Company wants to introduce a new bike – "Facino" exclusively for young ladies in Indian Market. The company wanted to conduct a survey in A.P. to understand and analyze Consumer behavior towards this bike. You are asked to prepare a questionnaire to collect the opinions of prospective consumers. Prepare a questionnaire to elicit information from consumers on price, quality, fuel efficiency and service etc. of the proposed bike.

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class : I MBA	Max Marks : 70
Subject : MANAGEMENT	Pass Mark : 30
Title of Paper : Selling & Negotiation Skills	Duration : 3 Hrs
Paper Code : R22MBA208	Time : 9am to 12pm
W.E.F : 2022-23	Date : 02/08/2023

SECTION-A

I.Answer any FIVE of the following Questions   5X4=20M

1. Importance of Selling

2. Service Selling

3. Personal selling

4. Negotiation skills

5. International selling

6. Enthusiasm

7. Ethics

SECTION-B

II. Answer any FIVE of the following Questions   5X8=40M

8. Explain Newton's classification of sales types.

(OR)

9. Explain Arnold's classification of selling types.

10. Elaborate attributes of a good sales person

(OR)

11. Explain Communication skills and persuasive skills

12. Explain Negotiation in personal selling skills.

(OR)

13. Discuss need and problem identification in personal selling skills.

14. Discuss pyramid of success power?

(OR)

15. Explain goals of negotiation skills.

16. Explain different phases of negotiation.

(OR)

17. Explain overcoming barriers in negotiation.

[P.T.O]

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class	: I MCA	MaxMarks : 70
Subject	: Computer Science	Pass Mark : 30
Title of Paper	: Software Engineering & Design Patterns	Duration : 3 Hrs
Paper Code	: R22MCA201/1	Time : 9am to 12pm
W.E.F	: 2022-23	Date : 17/07/2023

SECTION-A

I. Answer ALL of the following Questions   **5X14=70M**

1. Explain about Different life cycle models

(OR)

2. Explain the scope and design aspects of Software Engineering

3. Explain the different phases of unified model

(OR)

4. Explain about CMM(CAPABILITY MATURITY MODELS)

5. Define CASE and explain the scope of CASE

(OR)

6. Explain about Non Execution based testing

7. Explain about Object Oriented Paradigm

(OR)

8. Discuss about Cohesion and coupling

9. Explain about Software Architecture

(OR)

10. Explain Design Pattern and Implementation during Design phase

Room No: _____

Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class   : I MCA
Subject   : Computer Science
Title of Paper : **Database Management System**
Paper Code : **R22MCA202**
W.E.F   : 2022-23

MaxMarks :70
Pass Mark : 30
Duration : 3 Hrs
Time   : 9am to 12pm
Date   : 19/07/2023

SECTION-A

I. Answer ALL of the following Questions   5X14=70M

1. Explain the centralized and client server architecture of DBMS

(OR)

2. Discuss about Data models, Schemas and Instances

3. Explain ER Design for the company database

(OR)

4. Explain the relational operations of Tuple calculus and domain calculus

5. What is Normal form and Explain the 5 normal forms in detail

(OR)

6. Explain about Join Dependencies and 5th Normal form

7. Explain in detail about transaction processing

(OR)

8. What is Concurrency control and Explain concurrency control techniques

9. Discuss INSERT, DELETE and UPDATE schemes in SQL

(OR)

10. Discuss different constrains in SQL

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class	: I MCA	Max Marks : 70	
Subject	: Computers	Pass Mark : 28	
Title of Paper	: Computer Networks	Duration : 3 Hrs	
Paper Code	: R22MCA203	Time : 9am to 12pm	
W.E.F	: 2022-23	Date : 21/07/2023	

SECTION-A

I. Answer ALL the following Questions   **5X14=70M**

1. Explain about OSI reference model

(OR)

2. Explain about GO BACK N & Sliding Window Protocols

3. Explain about Bluetoth Architecture

(OR)

4. Explain about Ethernet MAC sub layer protocol

5. Discuss the services provided by the Transport layer

(OR)

6. Explain about Link State Routing Algorithm

7. Explain about Congestion Control in TCP

(OR)

8. Differentiate TCP and UDP

9. Explain the services provided by DNS

(OR)

10. Explain the Architecture of WWW

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG II SEMESTER END EXAMINATION

Class   :I MCA   Max Marks : 70

Subject   : Computers   Pass Mark : 30

Title of the Paper: **Research Methodology & IPR**   Duration   : 3 Hrs

Paper Code   :R22MCA204   Time   : 9am to 12pm

W.E.F   : 2022-23   Date   : 26/07/2023

SECTION-A

Answer All of the Following Questions   (5X14=70M)

1. What is research ? Explain the process of Research and about types of research

   (OR)

2. Describe review of literature and its importance in the process of research. Explain approaches   to critical literature review

3. What is Sampling and d Explain different types of sampling.

   (OR)

4. What is Data Collection? Explain the techniques to collect primary and secondary data?

5. What is Hypothesis? Explain the formulation of hypothesis and the types of Hypothesis.

   (OR)

6. Describe about basic measurement scales .Also explain about the reliability and validity of the scales

   (OR)

7. Describe what is patent and procedure for granting patents and rights of patent

   (OR)

8. What is IPR ? Explain its features and different types of Intellectual Property Rights

9. Elucidate the developments in IPR in the last five years in India

   (OR)

10. Describe the international patent protection and its significance.

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class	: I MCA	Max Marks	: 70
Subject	: Computers	Pass Mark	: 28
Title of Paper	: Data Warehousing And Data Mining	Duration	: 3 Hrs
Paper Code	: R22MCA205E2	Time	: 9am to 12pm
W.E.F	: 2022-23	Date	: 24/07/2023

SECTION-A

I. Answer ALL the following Questions   **5X14=70M**

1. Explain in detail of OLAP

(OR)

2. Discuss in detail about Data Mining and Data ware housing

3. Explain about Decision Tree algorithm with an example

(OR)

4. What is meant by classifier example in detail various types of classifiers

5. Explain about FP growth algorithm

(OR)

6. What is meant by an Item-set, item-set its generation and Rule

7. Discuss about Scalable clustering algorithm

(OR)

8. Explain about K-Means Algorithm

9. Explain about Web Content Mining and Web structure Mining

(OR)

10. Discuss in details about Ranking of Web Pages

Room No: _____   Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class   : I M.Sc (OCH/ACH)   Max Marks : 70
Subject   : Chemistry   Pass Mark : 28
Title of Paper : Organic Spectroscopy   Duration   : 3 Hrs
Paper Code : R22OCH201/R22ACH201   Time   : 9am to 12pm
W.E.F   : 2022-23   Date   : 24/08/2023.

SECTION-A

I. Answer ALL the following Questions   **5X14=70M**
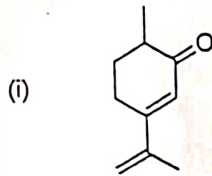
1. a) Calculate the λ_{max} of the following compounds using Woodward-Fieser rules (9M)

(i)   (ii)   (iii)
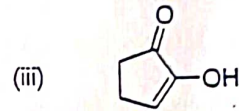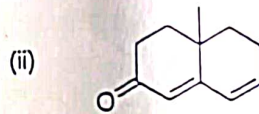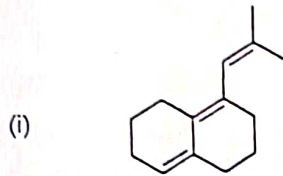
b) Explain why a polar solvent usually shifts the $n \rightarrow \Pi^*$ transition to longer wavelength and $n \rightarrow \Pi^*$ transition to shorter wavelength   (5M)

OR

2. a) Calculate the λ_{max} of the following compounds using Woodward-Fieser rules (9M)

(i)   (ii)   (iii)
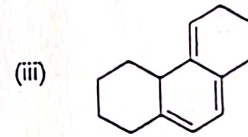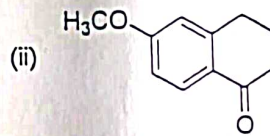
b) Explain the terms Chromophores and Auxochromes   (5M)

3. a) How do you distinguish the following pairs by IR spectroscopy   (9M)
    (i) Benzoic acid and benzophenone
    (ii) Cyclopentanone and Cyclopropanone
    (iii) 1-hexyne and 1-hexene

b) Write a note on Finger-print region in IR.   (5M)

4. a) Write the factors influencing vibrational frequencies in the IR spectra   (8M)
b) Explain the frequencies for new functional groups.   (6M)

5. a) Write the principle of NMR Spectroscopy   (6M)
b) Explain i) Shielding and deshielding   (8M)
       ii) Spin-spin splitting.

OR

[P.T.O]

SECTION-A

I. Answer **ALL** the following Questions   5X14=70M

1. a) Explain Bose Einstein statistics.   (8M)

   b) State and explain Nernst Heat theorem .   (6M)

(OR)

2. a) Derive an expression for molecular translational partition function of an ideal gas (8M)

   b) Derive Sackur-Tetrode equation   (6M)

3. a) Describe the flow methods for determination of rates of fast reactions.   (8M)

   b) What is quantum yield. Give examples of reaction with low and high quantum yields.

(OR)   (6M)

4. a) Discuss the Kinetics of Hydrogen-oxygen reaction.   (8M)

   b) Derive Stern-Volmer equation.   (6M)

5. a) Explain Great Orthogonality theorem.   (8M)

   b) Write the anatomy of character table.   (6M)

(OR)

6. a) Write about symmetry elements and symmetry operation   (8M)

   b) Explain abelian group with an example.   (6M)

7. a) Explain rigid rotator model of a diatomic molecule.   (8M)

   b) Explain zero point energy and overtones   (6M)

(OR)

8. a) Explain PQR branches in rotational vibrational spectroscopy.   (8M)

   b) Write the differences between harmonic and anharmonic oscillator.   (6M)

9. Explain Tafel plots. Derive Butler-Volmer equation.   (14M)

(OR)

10. a) Discuss the principle and advantages of poteniometric titrations   (8M)

    b) Describe the working of Calomel electrode.   (6M)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Class : I M.Sc (OCH/ACH)

Subject : Chemistry

Title of Paper : Inorganic Chemistry-II

Paper Code : R22OCH203/R22ACH203/R20OCH203/R20ACH203

W.E.F : 2022-23

Max Marks : 70

Pass Mark : 28

Duration : 3Hrs

Time : 9am to 12pm

Date : 28/08/2023.

SECTION-A

I. Answer ALL the following Questions   5X14=70M

1. a) Explain the structure, preparation and bonding in $[Re_2Cl_8]^{2-}$ (8M)

   b) Explain Wades rules   (6M)

(OR)

2. a) Discuss the structure and bonding in higher boranes.   (8M)

   b) Explain carboranes, metalloboranes   (6M)

3. a) Explain oxidative addition and reductive elimination in organometallic compounds.

                                                                               (8M)

   b) Discuss the classification, hapticity of organometallic compunds   (6M)

(OR)

4. a) Explain catalytic hydrogenation and hydroformylation reaction in organometallic

      compounds   (8M)

   b) Write about insertion reactions in organometallic compounds   (6M)

5. a) Explain Acid hydrolysis and Base hydrolysis.   (8M)

   b) Write the mechanism for inner sphere reactions   (6M)

(OR)

6. a) Discuss the reaction without metal ligand based cleavage in organometallic

      compounds.   (8M)

   b) Explain Marcus-Hush equation and cross reaction.   (6M)

7. a) Explain term symbol, Draw the term symbol for d^2, d3, d^4 configuration   (8M)

   b) Explain Charge transfer spectra   (6M)

(OR)

8. a) Draw the Tanabe-Sugano diagrams for d^6 configuration   (8M)

   b) Give an account on Hund's rules to predict ground terms and Racah parameter (6M)

9. a) Explain types of magnetism. Write the factors affecting paramagnetism   (8M)

   b) Explain Spin orbit Coupling and anomalous magnetic moments   (6M)

(OR)

10. a) Write a note on Haemoglobin   (8M)

    b) Write about Vitamin B_{12} and its importance   (6M)

SECTION-A

I. Answer **ALL** the following Questions

5X14=70M

1. Explain about Binary Search Trees.

(OR)

2. Explain about Graphs and Graphs Representation

3. Explain about Kruskal's Algorithm.

(OR)

4. Explain about Knapsack problem

5. Explain about Travelling person Problem.

(OR)

6. Explain about Optimal Binary search tree?

7. Explain about N-queens problem

(OR)

8. Explain about Depth First Search.

9. Explain about LC Branch and Bound.

(OR)

10. Explain about Traveling Sales person using branch and bound

SECTION-A

I. Answer <u>ALL</u> the following Questions   **5X14=70M**

1. Describe in detail about multidimensional data model.

(OR)

2. Describe about Data Cube and OLAP, Data Warehouse Design?

3. Explain in detail about Data Cleaning, Data Integration, Data Reduction, Data Transformation.

(OR)

4. Explain the working and building of a decision tree.

5. Explain in detail about Apriori Algorithm

(OR)

6. Explain in detail about FP Growth Algorithm

7. Describe in detail about Data warehouse architecture

(OR)

8. Explain in detail about Star and Snow-Flake Schema, Fact Constellation.

9. Discuss in detail about Outlier analysis and detection methods.

(OR)

10. Discuss in detail about Hierarchal Methods

SECTION-A

I. Answer ALL the following Questions   **5X14=70M**

1. Explain about Data Science Life Cycle and different tools available for Data Science?

(OR)

2. Explain Evolution of R and concepts of Statistics?

3. Explain about Data storage and management, using multiple data sources

(OR)

4. Explain about different Machine Learning algorithms?

5. Explain about Random Forest and Decision Tree with an example?

(OR)

6. Explain about Normal and Binomial distributions?

7. Explain about Mean, Median, Variance and Standard Deviation?

(OR)

8. Explain about - The R Profiler - Using summaryRprof()?

9. Explain about line charts - pie charts - box plots - Scatter plots?

(OR)

10. Explain about Setting random number seed and Pie Charts with example in R?

Room No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II – SEMESTER END EXAMINATIONS

Regd No: _____

Class   : I M.Sc (DS)
Subject   : Computers
Title of Paper : Data Processing And Visualization Using Tableau
Paper Code   : R23DS201
W.E.F   : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time   : 9am to 12pm
Date   : 10/08/2025

SECTION-A

I. Answer ALL the following Questions   **5X14=70M**

1. Explain about Creating New Workbooks, Tableau and Tableau Application Suite.

(OR)

2. Explain about Sample Dataset, and Types of Data Sources in Tableau.

3. Explain about Show me, Color, size and Label Options in Tableau

(OR)

4. Explain about Shared Axis Charts and Dual Axis charts.

5. Create Bar Chart and Pie Chart in Tableau

(OR)

6. Create a Text Table View, Histogram View and Hierarchy.

7. Create Word Clouds (Single Column and Two Columns) in Tableau.

(OR)

8. Create a Water Fall Chart in Tableau.

9. Create a Simple Dashboard in Tableau

(OR)

10. Create a Creating Parameters with Calculated Fields.