Regd No:_____ **Room No:**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG-III SEMESTER END EXAMINATIONS

Class	: II MBA	Max Marks	: 70
Subject	: Management	Pass Mark	: 30
Title of Paper	: Strategic Management	Duration	: 3 Hrs
Paper Code	: R20MBA301/R22MBA301	Paper Time	: 9am to 12pm
W.E.F	: 2021-22	Date	: 30/12/2024

SECTION – A

1. Answer any FIVE Of the following questions. **5X3=15M**

a) Definition of Strategic Management.
b) Explain Value Chain Approach.
c) Explain Organisation Structure.
d) Explain the Expansion Strategies.
e) Explain Strategic Structure.
f) Explain Strategic DM.
g) Explain Strategic Advantage Profile.
h) Explain Co-operative Culture.

SECTION –B

Answer ALL the following Questions **5X8=40M**

2. (a) Explain Need and Scope of Strategic Management.

(OR)

(b) Explain the Basic Model of Strategic Management.

3. (a) Explain the Industrial Level Analysis.

(OR)

(b) Discuss the Organizational Capable Profile.

4. (a) What is Leadership? Explain Styles of Leadership.

(OR)

(b) Define Strategy? Explain the Divestment and Coordination Strategies.

5. (a) Explain types of Expansion Strategies.

(OR)

(b) Explain Various Turnaround Strategies.

6. (a) What is 7S frame work? Explain it's Implementation Issues?

(OR)

(b) What is Strategy Evaluation? Justify Strategy Evaluation and Control is important for Every Organization.

SECTION –C

Case Study

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

7. Explain Diversification and Growth Strategies for Organizational Development.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class	: II MBA	Max Marks	: 70
Subject	: Management	Pass Mark	: 28
Title of Paper	: Product And Brand Management	Duration	: 3 Hrs
Paper Code	: R22MBA302 / R20MBA304 Mkt	Time	: 9am to 12pm
W.E.F	: 2022-23	Date	: 01/01/2025

SECTION-A

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

1. Write short notes on:

a) Product hierarchy

b) Product life cycle

c) Elements of product positioning

d) Brand value chain

e) Brand Repositioning

f) Brand loyalty

g) Brand Rejuvenation

h) Brand failures

SECTION-B

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

2. 80% new products fail. Write a new product launch strategy checklist. How to plan the best new product launch marketing campaign?

(OR)

3. What should be including in a new product portfolio? How to create a product portfolio roadmap?

4. What is Product positioning? Discuss various product positioning methods and strategies.

(OR)

5. What are the dimensions of a product mix? How do you determine the product mix?

6. What makes a strong brand? How to build a strong brand?

(OR)

7. Describe Keller's brand equity model with the help of a neat diagram.

8. What metrics organizations use to measure the strength of a brand? How do you measure brand success?

(OR)

9. What re the five dimensions of brand personality? How do you write a brand personality statement?

10. Discuss the role of packing and labeling in branding. Give relevant examples of each.

(OR)

11. Enumerate the challenges uncounted in developing global brand by Indian companies. Suggest measures to overcome the challenges.

[P.T.O]

SECTION-C

III. Case Study (Compulsory) **1X15=15M**

12. Rakesh Sood, General Manager (Marketing) is planning to launch a new range of ready to eat biscuits and cakes in the Indian market. His company is the market leader in chocolates and their brand, Moonlit, is the most preferred brand among consumers for chocolates. He is confused whether he should extend the same brand to this new product category or should he launch a new brand separately for biscuits and cakes.

Discuss the advantages and disadvantages of Brand extensions in light of this example.

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

Class : II MBA
Subject : Management
Title of Paper : **Digital Marketing**
Paper Code : R22MBA303
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 03/01/2025

SECTION-A

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

1. a) Explain Digital vs real marketing

b) What are privacy issues of digital marketing

c) What is SWOT analysis

d) Discuss the role of social media in Marketing

e) Explain how to create a Facebook page

f) Discuss the concept of e-mail marketing

g) What are various goals of social media marketing

SECTION-B

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

2. Explain in detail the fundamental ideas underlying in Digital Marketing

(OR)

3. How can we integrate Traditional and Digital Marketing

4. Explain in detail the future of Digital Marketing

(OR)

5. Explain the concept of Budgeting in Digital Marketing

6. Explain in detail various social media marketing strategies

(OR)

7. What are different types of Social media channels

8. What are various types of publications in Facebook

(OR)

9. How do you optimize Instagram profile

10. What are various problems and challenges in social media marketing

(OR)

11. Explain the significance of ethics in social media marketing

[P.T.O]

CASE STUDY

12. Compulsory Question **1X15=15M**

Online reviews are without a doubt a valuable information source for a potential customer, Online reviews spend a lot of time in reviewing products and passing on their experiences to potential customers typically for the products which are expensive or otherwise highly engaging (such as restaurants / movies). Nevertheless, many customers also review low cost FMCG type products for example candy

Gummy bears are originally a German invention. They are a gelatine-based fruit flavoured gum in the form of a bear. In that sense, they are similar to jelly babies invented in 1922 by the Haribo company, gummy bears have changed overtime and expanded in to the other markets To accommodate the rising demand for sugar free products Haribo also launched a sugar free version of the bears. The sugar is replaced by maltitol, a type of sugar alcohol used as sugar replacement. It has half calories of traditional sugar while it has 80% of sweetness. Unfortunately, like other sugar alcohols maltitol can have a laxative effect causing stomach rumble flatulence and diarrhoea when large quantities are consumed. Some people appear move vulnerable to these side effects needing only relatively small amounts of maltitol to notice the effects.

These undesirable effects are the focus of many scathing but also often very funny and tongue-in cheek review of HARIBO sugar free gummy bears. Especially on Amazon, the reviews of the product has reached near cult like status. The product has reviews ranging form suggesting the gummies will halt the coronavirus (because after eating them, people spend days in the bathroom alone) to hilarious stories of what happened when they are eaten before the flight. Although the product is no longer available people still keep writing reviews and keep sharing the reviews in the social media. Although HARIBO has not made any statement about the potential impact of these reviews on their decision to terminate the production of these sugar free candies, The hype and laughter about them continues

Questions

1. Which motivations do reviewers have to review and share the story of HARIBO sugar free gummy bears
2. Even though the product is no longer available reviewers claim to suffer from the effects induced by the product. How would you deal with fake reviews.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class	: II MBA	Max Marks	: 70
Subject	: Management	Pass Mark	: 28
Title of Paper	: **Behavioural Finance**	Duration	: 3 Hrs
Paper Code	: R22MBA304(F)	Time	: 9am to 12pm
W.E.F	: 2023-24	Date	: 06/01/2025

SECTION-A

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

1. a) Scope of behavioral finance.

b) Hyperbolic discounting

c) Expected Utility concept

d) Efficient market hypothesis

e) Corporate decision making

f) Active portfolio management

g) Investor behavior

h) Measuring risk

SECTION-B

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

2. Explain the nature, objectives and applications of behavioural finance.

(OR)

3. Give brief note on Anchoring exponential discounting.

4. What do you understand by Expected Utility Theory (EUT)? Explain.

(OR)

5. Discuss the Investor rationality and market efficiency.

6. Explain the fundamental information and technical analysis in financial markets.

(OR)

7. Explain the concept of arbitrage model

8. Explain the behavioural factors and corporate decisions on capital structure and dividend policy.

(OR)

9. Discuss the external factors affect the investor decision making behavior.

10. Explain Neurophysiology of risk taking.

(OR)

11. Explain Emotional mechanism in modulating risk-talking attitude

[P.T.O]

SECTION-C

1X15=15M

12. Case Study :

Deepika is scared of investing in the stock market because of the risks associated with it. Therefore, she invests in "safe" avenue such as Treasury notes. She puts Rs. 50,000 in a 1year T-Bills and the same amount in a 10 year T-bills. She is satisfied that her money is safe with these investments. However, her friend Aliya analyses her financial performance only to find that the results are not as satisfactory as she thinks. The 1 year T-bill is making money which is only enough to buy her a coffee while the earnings on 10-year T-bill would not even take care of her weekly grocery expenses. Thus she suggest to Deepika to take risk and invest in other investment avenue which can provide high return like securities, mutual funds, liquid funds etc but Deepika is very skeptical about high return investment choices. Based on past year experience and financial lose in family she completely avoid risky investment.

Questions:

a) Which behavioural mistake do you think Deepika has made?

b) Which Behavioural Biases dominating Deepika's investment choices?State those biases.

c) Provide debiases strategy to Deepika to overcome her behavioural Biases.

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

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

Class	: II MBA	Max Marks	: 70
Subject	: Management	Pass Mark	: 28
Title of Paper	: **Human Resources Planning And Development**	Duration	: 3 Hrs
Paper Code	: R22MBA304(H)	Time	: 9am to 12pm
W.E.F	: 2023-24	Date	: 06/01/2025

SECTION-A

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

1. a) Human Resource Planning

b) Career Stages

c) HRD Climate

d) Organizational Analysis

e) Quality of work Life

f) HR Audit

g) Succession Planning

h) Future of HRD Organization.

SECTION-B

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

2. Explain the types of HR Planning

(OR)

3. Explain various Benefits and Problems of Human Resource Planning

4. Explain Need and Components of Career Planning

(OR)

5. Write about Human Resource Accounting

6. Explain about HRD in changing scenario.

(OR)

7. Define Role Analysis. What are its Methods? Explain.

8. Explain the stages of a HRD Programme.

(OR)

9. Explain the Models and Frame work of HRD Evaluation.

10. What are the HRD Challenges in 21st Century. Explain.

(OR)

11. Write about HRD Practices in the Manufacturing and Service sector.

[P.T.O]

SECTION-C

12. CASE STUDY **1X15=15M**

Deven Gandhi has been employed for 4 years in the accounts department of a large automobile service station in Mumbai. The service station is the biggest one in the state of Maharashtra and is a listed company on the Mumbai stock exchange, employing over 650 employees. The accounts department consists of 22 employees mostly commerce graduates with professional qualifications like CA, ICWA, ICSI, CFA to their credit. Since the service station is the authorized dealer for most car manufacturers in India, it has to serve the needs of a large army of customers in and around Mumbai. To improve operational efficiency, the account section has been fully computerized and all employees have been asked to undergo training accordingly.

You have been the office manager for the past six years and recently, you have been asked by management to conduct a random sampling of the quantity and quality of employee output after the computerization programme is over. With the exemption of Deven Gandhi, All seem to be producing at or close to the standards set earlier in the year. Along with numerous computational errors, Gandhi's work is characterized by low performance – often he does 20 percent less than the other clerks in the department. As you examine Gandhi's work again, you begin to think about some sort of remedial training in computerized accounting operations for people like him immediately.

Questions:

1. As Gandhi's supervisor, can you find out whether the performance is due to poor training or due to some other causes?
2. If you find Gandhi has been inadequately trained (in a hurried manner), how do you go about introducing a remedial training programme?
3. Should you monitor his work more closely? Can you do this without making it obvious to him and his co-workers?
4. Is it not advisable to discuss the situation with Gandhi before the next performance review commences?

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

Class : II MBA
Subject : Management
Title of Paper : Behavioural Finance
Paper Code : R22MBA304(F)
W.E.F : 2022-23

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 18/01/2025

SECTION-A

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

1. Write short notes on:

a) Scope of behavioural finance.

b) Cognitive information perception

c) Investment decision cycle

d) Efficient market hypothesis

e) Corporate decision making

f) Emotional mechanism

g) Market predictability

h) Measuring risk

SECTION-B

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

2. Explain the nature, objectives and applications of behavioural finance.

(OR)

3. Give brief note on hyperbolic discounting.

4. What do you understand by Expected Utility Theory (EUT)? Explain.

(OR)

5. Discuss the Investor rationality and market efficiency.

6. Explain the fundamental information and technical analysis in financial markets.

(OR)

7. Explain the concept of arbitrage model

8. Explain the behavioural factors and corporate decisions on capital structure and dividend policy.

(OR)

9. Discuss the external factors affect the investor decision making behavior.

10. Explain Neurophysiology of risk taking.

(OR)

11. Explain personality traits and risk attitudes in different domains.

SECTION-C

III. Case Study (Compulsory) **1X15=15M**

12. "Behavioural challenges have reduced the efficiency of traditional finance theories, hence, behavioural finance as a disciple has evolved and gaining importance in the present dynamic business environment". Elucidate with suitable examples.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class : II MBA
Subject : Management
Title of Paper : Performance And Reward Management
Paper Code : R22MBA305(H)
W.E.F : 2022-23

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 08/01/2025

SECTION-A

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

1. Write short notes on:

a) Ideal PM Systems

b) Dimensions of performance appraisal

c) Performance reviews

d) Role efficacy

e) Mentoring

f) Career planning

g) Compensation

h) Fringe benefits

SECTION-B

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

2. Define Performance management. Explain the process of performance management.

(OR)

3. Explain the pitfalls of poorly implemented performance management systems.

4. What is Performance Appraisal? Explain the determinants and dimensions of performance.

(OR)

5. What are the different methods of performance appraisal? Explain the rationale of 360^0 appraisal process.

6. What is employee developmental plan? Explain the components and process of personal development plan.

(OR)

7. Why do you need a performance consultant? What are the practices of performance consulting?

8. Write about the statutory provisions governing different components of reward systems?

(OR)

9. What re the executive compensation system in IT Companies?

10. Explain the performance pay and incentives of individual and groups.

(OR)

11. Discuss about various retirement benefits including VRS.

[P.T.O]

SECTION-C

III. Case Study (Compulsory) **1X15=15M**

12. Xyz organization is a medium size company which produces electrical components. The performance management policy of the company is based on the principal of rewarding the efficient employees and churning and eliminating the incompetent employees. When the performance declines beyond the permissible levels, a warning is issued to him/her and usually asked to explain the reason for decline. In the absence of any convincing reply or significant improvement within a reasonable time frame, the company resorts to transfer. If the poor performance continues, his or her services are terminated after due notice. This is followed for all the levels of employees. With the current system, the company has successes in maintaining the quality of products.

Questions:

1. If you are the HR manager of the organization do you see any crisis in your organization?
2. Comment on practice of the organization
3. In case, one of your friends who works as an supervisory need to be terminated because of poor performance how will you tell this to him?

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

Class : II MBA
Subject : Management
Title of Paper : Security Analysis & Portfolio Management
Paper Code : R22MBA305(F)
W.E.F : 2022-23

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 08/01/2025

SECTION-A

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

1. Write short notes on:

a) Investment Vs Speculation

b) Utility analysis

c) Concept of present value

d) Portfolio selection

e) Security market line

f) Risk free assets

g) Portfolio revision

h) Regression analysis

SECTION-B

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

2. What do you mean by unsystematic risk? What are its sources? How can it be managed?

(OR)

3. Define the term "investment". Discuss the different avenues available to an investor for making investment.

4. Explain the share valuation techniques.

(OR)

5. Discuss the bond pricing theorems.

6. Economy – Industry – Company (EIC) framework provides a useful approach to equity investment decisions." Explain.

(OR)

7. Define Technical Analysis. Explain the concept of technical indicators.

8. "The portfolio performance is evaluated by measuring and comparing the portfolio return and associated risk and hence risk adjusted performance". Discuss

(OR)

9. Define efficient market hypothesis and discuss the various forms of market efficiency.

10. Explain the arbitrage pricing theory. What are its limitations?

(OR)

11. Explain in brief Sharpe's and Treynor's performance evaluation models?

[P.T.O]

SECTION-C

III. Case Study (Compulsory) **1X15=15M**

12. The financial performance of the various mutual funds is provided below. The risk free rate of interest is 6%

Name of the scheme	Return on portfolio	Standard deviation of the portfolio	Beta
Birla Mutual fund	23.45	0.3	0.27
Tata Mutual fund	22.95	8.98	0.54
ICICI Mutual fund	23.15	3.45	0.56

Rank the funds according to the Sharpe's and Treynor's performance index.

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

Class : II MBA
Subject : Management
Title of Paper : **Management of Banks And Financial Institutions**
Paper Code : R22MBA306(F)
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 10/01/2025.

SECTION-A

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

1. a) EFT Services

b) Growth of banking system in India

c) Contents of loan policy

d) Evaluating credit applicant

e) Objectives of ALM

f) Monetary policy

g) Investment management

h) Core banking solutios

SECTION-B

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

2. Elaborate the recommendations of Narasimham Committee.

(OR)

3. Explain mergers and acquisitions in banking sector.

4. Define capital adequacy norms. Explain the Basle norms on capital adequacy.

(OR)

5. Briefly explain about theories of liquidity management.

6. What are NPA's? Explain causes, suggestions and steps for containing NPAs.

(OR)

7. Define credit management. Explain the factors influencing loan policy.

8. Write a note on structure and major reforms of Indian financial system.

(OR)

9. What are the factors that led the Indian Financial market and global financial markets? Explain in detail.

10. Discuss what the regulatory institutions in India are and explain its role?

(OR)

11. Elaborate the types and comparison between banks and NBFCs.

[P.T.O]

SECTION-C

12. Case Study **1X15=15M**

The Indian financial sector is playing a vital role in economic development. Highlight the reforms introduced in various sectors such as banking, capital market and insurance sectors.

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

Class : II MBA
Subject : Management
Title of Paper : **Managerial Competencies And Employee Development**
Paper Code : R22MBA306(H)
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 10/01/2025

SECTION-A

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

1. a) Managerial competency

b) Holland theory

c) Competency appraisal

d) Succession planning

e) Competency Appraisal

f) Identifying training needs

g) Mentoring for career development

h) Competency building

SECTION-B

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

2. What are the theoretical foundations for competency identification? How does it play effective role in career development?

(OR)

3. What is competency? Explain the significance of managerial competencies for effective work performance in a dynamic business environment.

4. Define competency mapping. Explain importance, scope and techniques of competency mapping.

(OR)

5. How does protean career development theory differ from traditional development? Explain.

6. Discuss the relevant issues in career development and explain career development strategies.

(OR)

7. Critically evaluate the concepts of career anchors and their relevance in today's organizational environment.

8. What type of competencies should be developed in the management training? Explain in detail.

(OR)

9. Draw the career path for self and the employees at middle levels of your organization.

10. Develop an effective competency mapping model for a chosen firm.

(OR)

11. Discuss the special issues in career development.

[P.T.O]

SECTION-C

12. Case Study **1X15=15M**

Identify competencies required for each role considering the tasks

a. Marketing manager

b. Production manager

c. Training Manager

Give functional and technical competencies of all above jobs.

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

Class : II MBA
Subject : Management
Title of Paper : **Stress Management**
Paper Code : R22MBA308
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 17/01/2025

SECTION-A

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

1. a) Frustration

b) Sources of stress

c) Stress and memory

d) Emotional intelligence skills

e) Time management

f) Work life balance

g) Dysfunctional conflict

h) Assertiveness training

SECTION-B

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

2. Define stress. Explain stress Vs burnout model of stress.

(OR)

3. Explain the different strategies of coping stress.

4. Define consequences of stress. Explain physiological and psychological changes associated with stress response.

(OR)

5. Explain the various behavioral aspects of stress.

6. Define personality. Discuss variables which contribute to the development of personality.

(OR)

7. What is emotional intelligence in the business environment? Explain the impact of emotional intelligence on business environment?

8. How do you apply emotional intelligence to conflict resolution in the workplace? Explain.

(OR)

9. Discuss the different ways to keep calm in stressful situations.

10. Define relaxation. Discuss techniques of relaxation.

(OR)

11. How does nutrition and life style play a role in stress management? Explain.

[P.T.O]

SECTION-C

III. Case Study **1X15=15M**

Mrs. Shaminder is a well-known professor in the city college. Her son, Tinu, was an intelligent and promising boy in the early years of schooling. As the child got to learn a bit of internet surfing, he grew fond of it and started spending long hours remaining glued to computer. Thus, he started remaining awake till midnight. Getting up very late in the morning became his habit. Tinu, a first-year student of graduate programme, can never make it to attending the first period in the college which starts at nine in the morning. Getting up late and falling off to sleep at odd hours is now his habit. His truant behaviour is a matter of concern for teachers. Initially he was bunking classes, then started missing examinations as he was neither prepared for the test nor was able to reach examination venue on time. Missing a few tests initially and the resultant rebukes of parents made Tinu immune to all insults on this account and now it seems his academic career is spoiled. Thus, it has become a great cause of sorrow for Mrs. Shaminder who has been a meritorious student and is a reputed and dedicated teacher.

Questions:

a) Identify main problems in the case.

b) Suggest ways and means to solve the problems in the above case.

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

Class : II MCA
Subject : Computer Applications
Title of Paper : **Artificial Intelligence**
Paper Code : R22MCA302A
W.E.F : 2024-25

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 01/01/2025.

SECTION-A

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

1. What is Structure of Agents.?

2. Explain about Concept of Reality

3. Explain about Problem Solving Agents

4. Explain about Searching with Non deterministic Actions

5. Explain about Bidirectional Search.

6. Explain about, issues in knowledge representation.

7. Explain about Mental Events

8. Explain about Systems for categories

SECTION-B

II. Answer the following Questions. **10X5=50M**

9. Explain about State of Art, Agents and Environment?

(OR)

10. Explain about Foundations of Artificial Intelligence

11. Explain about Local Search Algorithms

(OR)

12. Explain about Heuristic Search Strategies

13. Explain about Iterative deepening depth first search

(OR)

14. Explain about Uniform cost Search

15. Explain about Alpha-Beta pruning

(OR)

16. Explain about Min Max Algorithm

17. Explain about Ontological Engineering?

(OR)

18. Explain about Knowledge based agents

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class : II MCA
Subject : Computer Applications
Title of Paper : **Information Security**
Paper Code : R22MCA303A
W.E.F : 2024-25

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 03/01/2025

SECTION-A

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

1. What is Information Security?

2. Explain about SDLC

3. Explain about Simple Network Management Protocol

4. Explain about Need for Security

5. Explain about Risk Management.

6. Explain about VISA International Security Model.

7. Explain about Planning for Continuity

8. Explain about IDS

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Explain about Critical Characteristics of Information?

(OR)

10. Explain about NSTISSC Security Model

11. Explain about Business Needs

(OR)

12. Explain about Ethical and Professional Issues

13. Explain about Process of Risk transfer

(OR)

14. Explain about Approaches of Risk Analysis

15. Explain about ISO 17799/BS 7799

(OR)

16. Explain about NIST Models

17. Explain about Scanning and Analysis Tools?

(OR)

18. Explain about Cryptography

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class : II MCA
Subject : Computer Applications
Title of Paper : **NO SQL DataBase**
Paper Code : R22MCA304
W.E.F : 2024-25

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 06/01/2025

SECTION-A

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

1. What is NoSQL Database?

2. Explain about Differences DBMS and MongoDB

3. Explain about JSON and BSON data types

4. Explain about Create Database Command and Create Collection Command

5. Explain about Upsert.

6. Explain about $exists, $type.

7. Explain about Sharding

8. Explain about Replica Set

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Explain about Inserting Documents from Java Script File, Inserting Documents from JSONFile?

(OR)

10. Explain about Basic MongoDB Shell Commands

11. Explain about Create Document

(OR)

12. Explain about Update Operation

13. Explain about : $eq, $ne, $gt, $gte, $lt, $lte, $in

(OR)

14. Explain about $or, $nor, $and, $not

15. Explain about $pop, $pull, $add

(OR)

16. Explain about $inc, $push, $each, $sort, $slice

17. Explain about MongoDB aggregation and Aggregation Framework?

(OR)

18. Explain about $match, $project, $sort, $limit, $skip

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

Class : II MCA
Subject : Computer Applications
Title of Paper : **R-Programming**
Paper Code : R22MCA305~~A~~
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 08|01|2025

SECTION-A

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

1. What are Arrays?

2. Explain about R Functions

3. Explain about Recursion

4. Explain about Boolean Operators and values

5. Explain about Minima and Maxima.

6. Explain about Sums and Products.

7. Explain about Graphs

8. Explain about Correlation and Covariance

SECTION-B

II. Answer the following Questions. **10X5=50M**

9. Explain about Matrices?

(OR)

10. Explain about Data Frames

11. Explain about Arithmetic and Boolean Operators

(OR)

12. Explain about Looping in R

13. Explain about Functions For Statistical Distribution

(OR)

14. Explain about Math Function

15. Explain about plot() Function

(OR)

16. Explain about Saving Graphs to Files

17. Explain about Binomial Distribution- Poisson Distributions?

(OR)

18. Explain about T-Tests

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

Class : II MCA
Subject : Computer Applications
Title of Paper : **Data Science**
Paper Code : R22MCA301A
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 30/12/2024

SECTION-A

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

1. Define Data Types in Python with example
2. Discuss about Numpy Package and usage
3. Define Aggregation and Grouping with example
4. Discuss about Indexing and selection with Example
5. Define use of Pandas & types of visualization using pandas
6. Explain use and Three Dimensional plotting in matplotlib
7. Discuss about categories of Machine Learning
8. Applications usage of Decision Trees and Random forest

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Explain about computation on Numpy arrays

(OR)

10. Implement a python program to sort the elements using array

11. Explain various types of operations on data using pandas

(OR)

12. Discuss with example about aggregation and grouping

13. Explain about density, contour plots and Histograms in data visualization

(OR)

14. Discuss in detail various types of plots used in visualization

15. Explain about customizing Matplotlib

(OR)

16. Discuss about visualization with Seborn

17. Explain in details different areas of research application in Machine learning

(OR)

18. Explain about Naïve Bayes Classification & Linear Regression.

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

Class	: II M.Sc (DS)	Max Marks	: 70
Subject	: Computers	Pass Mark	: 28
Title of Paper	: **React JS**	Duration	: 3 Hrs
Paper Code	: R23DS303	Time	: 9am to 12pm
W.E.F	: 2023-24	Date	: 03/01/2025

SECTION-A

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

1. Discuss about React Js and its component structure
2. Discuss about the components and properties in JSX
3. Discus about Control component
4. Understanding Event Handling with example
5. Explain understanding form and working with forms
6. Discuss the importance of Keys in React
7. Explain about React Router Setting
8. Error handing and Debugging in React

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Explain basic application in React

(OR)

10. Discuss react development environment

11. Explain Component Life cycle method with example

(OR)

12. Discuss Arrow function Vs Regular function

13. Explain operators in JSX with example

(OR)

14. Discuss Rendering Lists Vs Map used in Rendering List

15. Discuss about React and React Router Setting

(OR)

16. Discuss the usage of Control component used in validation and submission

17. Discuss the Steps used in Request of HTTP in React

(OR)

18. Narrate the steps for debugging react Apps

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class	: II M.Sc (DS)	Max Marks	: 70
Subject	: Computers	Pass Mark	: 28
Title of Paper	: **Data Science Using Python**	Duration	: 3 Hrs
Paper Code	: R23DS301	Time	: 9am to 12pm
W.E.F	: 2023-24	Date	: 30/12/2024

SECTION-A

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

1. Discuss the Basics of Numpy
2. Define Numpy Array and computation on Arrays
3. How to handle Missing Data
4. Discuss about Hierarchical Indexing
5. What do you mean by Binnings and Density
6. Discuss about Visualizing Errors
7. Three Dimensional Plotting in Matplotlib
8. Discuss about Scikit Learning

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Explain about Computation on Numpy Array with example

(OR)

10. Discuss about Boolean Logic, Fancy Indexing and Array sorting

11. Discuss in detail about Data Manipulation with Pandas

(OR)

12. Explain about Aggregation and grouping

13. Explain about density, contour plots and Histograms in data visualization

(OR)

14. Explain about Visualization with Matplotlib

15. Discuss about Customizing Plot Legends and Customizing Colorbars

(OR)

16. Explain about Visualization with Seaborn

17. What is Machine Learning and Categories of Machine Learning

(OR)

18. Discuss about Feature Engineering

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class : II M.Sc (DS)
Subject : Computers
Title of Paper : **Mongo DB**
Paper Code : R23DS302
W.E.F : 2024-25

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 01|01|2025

SECTION-A

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

1. What is NoSQL Database?

2. Explain about types of No SQL Databases

3. Explain about JSON and BSON data types

4. Explain about findOne (), findMany()

5. Explain about Upsert.

6. Explain about Element Query Operators.

7. Explain about , $min, $max

8. Explain about Replica Set

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Explain about MongoDB Collections, MongoDB Documents, Basic MongoDB Shell Commands?

(OR)

10. Explain about Data types in MongoDB

11. Explain about insertOne (), insertMany () findOne(), Pretty()

(OR)

12. Explain about Delete Operation

13. Explain about Query operators

(OR)

14. Explain about Logical Query Operators

15. Explain about $pop, $pull, $add

(OR)

16. Explain about any 5 update Operators

17. Explain about MongoDB Aggregation Framework?

(OR)

18. Explain about $match, $project, $sort and Sharding in MongoDB

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

Class : II M.Sc (DS)
Subject : Computers
Title of Paper : **Cryptography And Network Security**
Paper Code : R23DS304
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 06/01/2025

SECTION-A

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

1. Discuss about Various security services
2. Explain Block Cipher principles
3. Explain Authentication function and message authentication.
4. Discuss Digital Signature Standards
5. Discuss about Authentication Services
6. Narrate about Pretty Good Privacy and S/MIME
7. Explain about SSL
8. Discuss about Firewall Design and DDOS attacks

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Explain OSI security architecture

(OR)

10. Discuss about DES [redacted] in CNS

11. Explain the principles of Public Key Cryptography and RSA algorithm

(OR)

12. Discuss about Digital signature and Digital signature standards

13. Explain X.509 Authentication Service

(OR)

14. Discuss about Diffe-Hellman Key Exchange

15. Discuss IP Security Architecture

(OR)

16. Narrate about Security Payload and Combining security association

17. Threats in Virus and Virus Counterpart measures

(OR)

18. Discuss Firewall Design and Security evaluation measures in information technology.

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

Class : II M.Sc (DS)
Subject : Computers
Title of Paper : **Web Designing**
Paper Code : R23DS305
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 08/01/2025

SECTION-A

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

1. Define www and need in creating Website

2. Discuss about CSS style sheets and Different types of Style sheets

3. Explain working with loops and Arrays in PHP

4. Explain investigating Strings in PHP

5. Discuss various types of functions with example in PHP

6. Discuss about working with forms in PHP

7. Explain control structures in PHP

8. Discuss about Bootstrap and syntax of Bootstrap

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Explain in details Tags of HTML with example

(OR)

10. Explain working with Lists, Tables and CSS selectors with example

11. Brief out the working with object, Instance and Arrays in PHP

(OR)

12. Explain about File and File operations with example in PHP

13. Discuss in details about Java Script

(OR)

14. Explain different Event Handling functions in Java Script

15. Explain in detail about JQuery

(OR)

16. Discuss about JQuery Effects and Animations

17. Explain the overview of Bootstrap

(OR)

18. Explain the connectivity of Boostrap its objects and instances

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

Class : II M.Sc (OCH)
Subject : Organic Chemistry
Title of Paper : **Organic Reactions And Mechanisms**
Paper Code : R22OCH301A
W.E.F : 2023-25

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 30/12/2024

SECTION-A

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

1. Describe the Ugi reaction
2. What is Stille reaction?
3. Describe the applications of Ring Closing Metathesis (RCM)
4. What is Ozonlysis?
5. Discuss the synthetic applications of SeO2
6. Explain the Brich reductions.
7. Write a note on Reduction reactions with di-imide
8. What is Beckmann Rearrangment.

SECTION-B

II. Answer ALL the following Questions. **5X10=50M**

9. Compare and contrast the Heck and Suzuki coupling reactions.

(OR)

10. Write the mechanisms of Nef reaction and Sakurai reaction.
11. Write about passerini reaction & Hantzsh reaction.

(OR)

12. Describe the Olefin Cross Coupling Metathesis(OCM) and write its applications.
13. Describe the oxidation of alcohols using Chromiun(IV) oxidants.

(OR)

14. Discuss the Synthetic applications of MnO2 and Ag2CO3
15. Explain the role of hydride transfer reagents such as LiAlH4 in organic reductions.

(OR)

16. Write the Synthetic applications of Hydride transfer reagents DIBAL and NaBH4
17. Discuss the Pinacol-Pincolone rearrangement. Explain the mechanism and synthetic applications of this reaction.

(OR)

18. Describe the Bayer villager and Reformatsky rearrangments.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)
PG II SEMESTER END EXAMINATIONS

Class	: IIM.Sc (OCH/ACH)	Max Marks	: 70
Subject	: Chemistry	Pass Mark	: 28
Title of Paper	: **Python Programming**	Duration	: 3 Hrs
Paper Code	: R22OCHOE310A/R22ACHOE310A	Time	: 9am to 12pm
W.E.F	: 2024-25	Date	: 08/01/2025

SECTION-A

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

1. Explain about History of Python
2. Explain about Input Method
3. Explain about functions
4. Explain about break statement
5. Explain about string methods
6. Explain about Class and Objects
7. Explain about Class variables
8. Explain about Modules

SECTION-B

II. Answer ALL the following Questions. **5X10=50M**

9. Explain about History of python?

(OR)

10. Explain about Data types in python?

11. Explain about Decision Control Statements in Python?

(OR)

12. Explain about Loops.

13. Explain about Functions?

(OR)

14. Explain about Recursive Function.?

15. Explain about Built-in String Methods?

(OR)

16. Explain about Regular Expressions.

17. Explain about Public and Private Data Members?

(OR)

18. Explain about Calling a class method from another class

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class	: II M.Sc (OCH)	Max Marks	: 70
Subject	: Organic Chemistry	Pass Mark	: 28
Title of Paper	: **Chemistry of Natural products**	Duration	: 3 Hrs
Paper Code	: R22OCH304A	Time	: 9am to 12pm
W.E.F	: 2021-25	Date	: 01/01/2025.

SECTION-A

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

1. Write a note on Isolation of Alkaloids.

2. Outline the steps involved in the synthesis of Camphor.

3. Write the synthesis of Farnesol.

4. Explain the synthesis of Testosterone.

5. Describe the classification of Steroids.

6. Discuss the Isolation of Flavonoids.

7. Explain the synthesis of Polyporic acid.

8. Describe the classification of Plant Pigments.

SECTION-B

II. Answer ALL the following Questions. **5X10=50M**

9. Write the general methods for the structural elucidation of Alkaloids.

(OR)

10. Explain the synthesis of Quinine.

11. Write the general methods for the structural elucidation of Terpenoids.

(OR)

12. Provide a detailed account of the structural elucidation and synthesis of Zingiberene.

13. Analyze the methods for the structural elucidation and synthesis of Androsterone.

(OR)

14. Explain the structural elucidation of Cholesterol.

15. Provide a detailed account of the structural elucidation and synthesis of Quercetin.

(OR)

16. Explain the structural elucidation and synthesis of Kaempferol.

17. Give the general methods for the structural elucidation of Plant Pigments.

(OR)

18. Explain the structure and synthesis of Haemin.

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

Class : II M.Sc (OCH)
Subject : Organic Chemistry
Title of Paper : **Organic Photochemistry And Pericyclic Reactions**
Paper Code : R22OCH305A
W.E.F : 2024-25

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 03/01/2025

SECTION-A

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

1. Explain Di-pi methane rearrangement.

2. Define Barton reaction.

3. Explain the photo reductions.

4. Draw the molecular orbital diagrams for 1,3 butadiene.

5. Explain the difference between conrotation and disrotation in electrocycic reactions.

6. Define exo-endo selectivity in Diels Alder reaction

7. Define the Huckel-Mobius aromatic and antiaromatic method for sigmatropic reactions

8. Write note on Claisen rearrangement.

SECTION-B

II. Answer ALL the following Questions. **5X10=50M**

9. Discuss photocycloaddition and photodimerisation in conjugated dienes.

(OR)

10. Explain the photo substitutions of aromatic compounds.

11. Discuss the mechanism of Paterno Buchi reaction.

(OR)

12. Explain Norrish-I and Norrish-II reactions.

13. Discuss the electrocyclic reactions by FMO method.

(OR)

14. Draw the MO diagrams for allyl groups.

15. Draw the Orbital symmetry Correlation diagram for (2+2) Cycloadditions.

(OR)

16. Define the Huckel-Mobius aromatic and antiaromatic method for Cycloadditions.

17. Discuss the Sigma tropic reactions by FMO method.

(OR)

18. Explain the Molecular Orbital approach for Cope rearrangement.

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

Class : II M.Sc (OCH/ACH)
Subject : Organic Chemistry/Analytical Chemistry
Title of Paper : **Green Chemistry**
Paper Code : R22OCH306A/R22ACH306A
W.E.F : 2023-24

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 06/01/2025

SECTION-A

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

1. Write a note on Aldol condensation.

2. Write a note on Benign green solvents.

3. Discuss the green synthesis of Sebacic acid.

4. Write the green synthesis of Adipic acid.

5. Write a note on S-alkyl reaction.

6. Write a note on N-alkyl reaction.

7. Explain Heterogeneous solid-liquid reaction.

8. Write a note on Negishi cross coupling reaction.

SECTION-B

II. Answer the following Questions. **5X10=50M**

9. Write the Green context of Wurtz reaction and Pinacol coupling reaction.

(OR)

10. Describe the Principles of Green chemistry.

11. Write the Green synthesis of Prednisolone.

(OR)

12. Write the Green synthesis of Ibuprofen.

13. Discuss the Microwave assisted reactions in organic solvents.

(OR)

14. Write a note on C-alkyl reaction.

15. Write a note on Sonochemical reactions.

(OR)

16. Write a note on Ultrasound assisted organic synthesis.

17. Write a note on Suzuki coupling and Stille coupling reaction

(OR)

18. Write the applications of Ionic liquids in organic synthesis.

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

Class	: II M.Sc (ACH)	Max Marks	: 70
Subject	: Analytical Chemistry	Pass Mark	: 28
Title of Paper	: **Separation Methods**	Duration	: 3 Hrs
Paper Code	: R22ACH301A	Time	: 9am to 12pm
W.E.F	: 2024-25	Date	: 30|12|2024

SECTION-A

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

1. Write the importance of qualitative and quantitative analysis in industries.

2. Write note on Rt and Rf.

3. Write a note on detectors used in (OR)chromatography.

4. Write the properties of Aion and Cation exchange resigns.

5. Discuss the principle ion exclusion chromatography.

6. Explain the applications of capiilary electrophoresis.

7. Write a sampling procedure.

8. Write the principle of solvent extraction.

SECTION-B

II. Answer ALL the following Questions. **5X10=50M**

9. Write a note on importance of qualitative and quantitative analysis in research and development.

(OR)

10. Explain the Development and validation of analytical methods.

11. Discuss the principle and Instrumentation ion chromatography.

(OR)

12. Write a note on principle anion and cation exchange, ion exchange mechanism.

13. Write the principle and Instrumentation capillary electrophoresis

(OR)

14. Write the principle and Instrumentation and the applications of gel chromatography.

15. Write a note on Cone and quaterning method.

(OR)

16. Write a note on sampling of liquids.

17. Explain the continuous and batch extraction.

(OR)

18. Write about special extraction systems like crown ethers and super fluids.

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

Class : II M.Sc (ACH)
Subject : Analytical Chemistry
Title of Paper : **Applied Analysis-I**
Paper Code : R22ACH302A
W.E.F : 2024-25

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 01/01/2025

SECTION-A

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

1. Write a note on analysis of Al_2O_3 in Manganese Ore.

2. Describe the method to determine moisture content in Iron ore.

3. Describe the method for analyzing copper in bronze

4. Describe the method for analyzing Tin in brass.

5. Write note soil Sampling.

6. Explain the process of proximate analysis of coal

7. Write a note on iodine number of oil.

8. Analysis of $BaSO_4$ in Paints.

SECTION-B

II. Answer ALL the following Questions. **5X10=50M**

9. Explain the analysis of MnO_2, SiO_2, MgO in Manganese ore

(OR)

10. Discuss the detailed procedure for the analysis of iron ore, including the determination of moisture, total iron and silica.

11. Provide a detailed account of the analysis of solder, with emphasis on the determination of tin and lead.

(OR)

12. Analyzing the constituents Mn, C & S in ferromanganese.

13. Discuss the procedure for the analysis of soils, focusing on the determination of moisture, total nitrogen, and lime.

(OR)

14. Provide a comprehensive overview of the analysis of solid fuels, including proximate and ultimate analysis.

15. Discuss the chemical analysis of cement, focusing on the determination of silica, alumina, and lime

(OR)

16. Provide a detail account of the analsis of soaps, with emphasis on moisture, total alkali, and total fatty matter.

17. Write a note on Non aqueous titrimetry.

(OR)

18. Discuss the analysis of paints, focusing on the determination of vehicle, pigment, and total lead content.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class : II M.Sc (ACH)
Subject : Analytical Chemistry
Title of Paper : **Applied Analysis-I**
Paper Code : R22ACH302A
W.E.F : 2024-25

Max Marks : 70
Pass Mark : 28
Duration : 3 Hrs
Time : 9am to 12pm
Date : 01/01/2025

SECTION-A

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

1. Write a note on analysis of Al_2O_3 in Manganese Ore.

2. Describe the method to determine moisture content in Iron ore.

3. Describe the method for analyzing copper in bronze

4. Describe the method for analyzing Tin in brass.

5. Write note soil Sampling.

6. Explain the process of proximate analysis of coal

7. Write a note on iodine number of oil.

8. Analysis of $BaSO_4$ in Paints.

SECTION-B

II. Answer ALL the following Questions. **5X10=50M**

9. Explain the analysis of MnO_2, SiO_2, MgO in Manganese ore

(OR)

10. Discuss the detailed procedure for the analysis of iron ore, including the determination of moisture, total iron and silica.

11. Provide a detailed account of the analysis of solder, with emphasis on the determination of tin and lead.

(OR)

12. Analyzing the constituents Mn, C & S in ferromanganese.

13. Discuss the procedure for the analysis of soils, focusing on the determination of moisture, total nitrogen, and lime.

(OR)

14. Provide a comprehensive overview of the analysis of solid fuels, including proximate and ultimate analysis.

15. Discuss the chemical analysis of cement, focusing on the determination of silica, alumina, and lime

(OR)

16. Provide a detail account of the analsis of soaps, with emphasis on moisture, total alkali, and total fatty matter.

17. Write a note on Non aqueous titrimetry.

(OR)

18. Discuss the analysis of paints, focusing on the determination of vehicle, pigment, and total lead content.

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KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

PG III – SEMESTER END EXAMINATIONS

Class	: II M.Sc (ACH)	Max Marks	: 70
Subject	: Analytical Chemistry	Pass Mark	: 28
Title of Paper	: **Quality Control And Standard Methods of Analysis**	Duration	: 3 Hrs
Paper Code	: R22ACH304A	Time	: 9am to 12pm
W.E.F	: 2024-25	Date	: 03/01/2025

SECTION-A

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

1. Write a short note on Statistical process Control
2. Write a note on Good Laboratory Practices.
3. What is post precipitation and give example.
4. Differentiate between Co-precipitates and post precipitate.
5. Write applications of PFHS methods.
6. Write analytical applications of DMG in gravimetric determination.
7. Write a note on reductive systems.
8. Write a note on organic oxidant system chloramines-T.

SECTION-B

II. Answer ALL the following Questions. **5X10=50M**

9. Explain about ISO 9000 requirements.

(OR)

10. Explain about ISO 14000 requirements.

11. Discuss the Heterogeneous, Homogeneous Nucleation and crystal growth.

(OR)

12. Explain the theory of Co-precipitation with example.

13. Write a note on gravimetric determination using DMG.

(OR)

14. Write a note on theory and applications of PFHS methods.

15. Discuss the preparation , stability , standardization and applications of reductive systems Cr(II), Sn(II) and hydroquinone

(OR)

16. Discuss the preparation , stability , standardization and applications of reductive systems V(II), Ti(II) and Ascorbic acid

17. Discuss the preparation , properties, stability, standardization applications of iodate and periodic solutions.

(OR)

18. Explain about formal, standard and normal potentials of oxidants in various media.