(12)

Room No: _____ **Regd No**_____

KAKARAPARTI B..VANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : BSc.Hons[CS,MATH,PHY,CHEM,ELE,STAT]/ B.C.A/B.VOC[WT&SD]
Subject : Computer Science & Applications
Title of Paper : **Oops Using Java/Oops Through Java**
Paper Code : R23BCA303/R23CSC301/ R23MCSC301/R23WT301
W.E.F : 2024-2025

Max Marks : 60
Pass Mark : 24
Duration : 3Hrs
Time : 2pm-5pm
Date : 05-11-2025

SECTION-A

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

1. What is Java virtual Machine?
2. Difference between POP and OOP?
3. Explain about the Jumping statements?
4. how to create the Object?
5. Explain about the Static members?
6. Explain about the Abstract methods and classes?
7. Explain about the thread Methods?
8. Explain HTML Applet Tag?

SECTION-B

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

9. Explain Basic Concepts of OOPs?

(OR)

10. Explain different types of Operators in JAVA?

11. Explain about the Control flow Looping statements with example?

(OR)

12. What is Constructor? Explain different types of Constructors?

13. What is Inheritance? Explain different types of Inheritance?

(OR)

14. Explain about the Method Overloading and Overriding with examples?

15. Define Package? How to create and access our own Package?

(OR)

16. Explain about the Thread Priority?

17. Explain About the Exception Handling?

(OR)

18. Explain about the Applet Life Cycle?

Room No: _____ Regd No: _____ (13)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (DS)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Web Technologies	Duration	: 3 Hrs
Paper Code	: R23DS303	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 05-11-2025

SECTION-A

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

1. Define HTML. Explain about Heading tags in HTML.

2. Explain about Hyperlinks in HTML with example.

3. How to define own style in CSS?

4. What is Layer? Explain it.

5. Explain about any four String functions in Java Script.

6. What is DHTML? Explain it.

7. Explain about Rollover Buttons.

8. Write any four differences between XML and HTML.

SECTION-B

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

9. Write any Eight HTML tags with Syntax and example.

(OR)

10. Define List. Explain about different types of Lists in HTML.

11. What is CSS? Explain about different types of CSS with examples.

(OR)

12. Explain about formatting block of information in CSS.

13. Define Operator. Explain about different types of Operators in Java Script.

(OR)

14. What is an Array? Explain about Array's in Java Script.

15. What is Data Validation? Explain about Data Validation in DHTML.

(OR)

16. Explain about Messages and Confirmations in DHTML.

17. Define DOM. Explain about DOM.

(OR)

18. What is Web Service? Explain about different Web Services in XML.

Room No: _____ Regd No _____ (14)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hons[TP]/BBA Hons[Gen/BA]	Max Marks	: 60
Subject	: Computer Applications	Pass Mark	: 24
Title of Paper	: **Structured Programming using C**	Duration	: 3 Hrs
Paper Code	: R23MNCSC302	Time	: 2pm-5pm
W.E.F	: 2025-26	Date	: 05-11-2025

SECTION-A

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

1. Define Algorithm and flow chart with example.

2. Explain key words in 'C' Language.

3. Explain break and continue statements with example.

4. Write a program to check whether the given numbers is perfect (or) not.

5. What is an Array? Explain single dimensional Array.

6. Explain how to declare string with an example program.

7. What is function? Write a procedure to create user define function.

8. Explain Recursive with examples.

SECTION-B

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

9. Explain the structure of 'C' Language with examples program.

(OR)

10. Explain about different data types in 'C' Language.

11. Explain different if statements in 'C' Language.

(OR)

12. Explain about different jumping statements in 'C' Language.

13. Explain different types of Arrays with complex program.

(OR)

14. Write a program to perform Matrix Addition.

15. Explain about string handling function in 'C'.

(OR)

16. Write a program to find no of characters, words, vowels and consonants in a given string.

17. Explain different types of functions in 'C' Language.

(OR)

18. Explain call by reference and call by value with example program.

Room No: _____ Regd No_____ (1K)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.Bcom.Hon[General]	Max Marks	: 60
Subject	: Computer Applications	Pass Mark	: 24
Title of Paper	: **Social Media Marketing**	Duration	: 3Hrs
Paper Code	: R23MCSC303	Time	: 2pm - 5pm
W.E.F	: 2024-2025	Date	: 05-11-2025

SECTION-A

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

1. List of key features of Digital Marketing.

2. What are the 5D's of Digital Marketing?

3. What are the types of digital marketing?

4. Define the term "Web marketing structure."

5. Define Digital Advertising? Write about types of Digital Advertisings?

6. Explain the role of search engines in digital marketing.

7. Explain the importance of targeting the right audience in social media.

8. Define automation in the context of social media.

SECTION-B

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

9. Explain about the advantages of Digital marketing?

(OR)

10. How is the marketing landscape changing due to digital marketing?

11. Describe the strengths and applications of digital marketing.

(OR)

12. Explain about Digital Marketing Structure.

13. Define Search Engine Optimization (SEO) Explain.

(OR)

14. Discuss Google's guidelines for digital advertising.

15. Explain about Social Model Web 2.0 with the proposal of McKinsey?

(OR)

16. List and explain the do's and don'ts of Social Media.

17. How can social media be integrated with other types of marketing?

(OR)

18. What are some tools used for managing social media?

(16)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hons [TP] / BBA Hons /BBA Hons [BA]	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Object Oriented Programming Using Java**	Duration	: 3 Hrs
Paper Code	: R23MNCSC301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 05-11-2025

SECTION-A

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

1. Explain about JAVA Data Types.

2. Explain about features of JAVA.

3. Explain about String Operations in JAVA.

4. Explain about Abstract Class in JAVA.

5. Explain about Packages in JAVA.

6. Explain about Super Class.

7. Explain about Inheritance.

8. Explain about Compile Time and Run Time Errors.

SECTION-B

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

9. Explain about JAVA Operators.

(OR)

10. Explain about Object Oriented Programming Language JAVA.

11. Explain about different types of Arrays in JAVA.

(OR)

12. Explain about Classes and Objects in JAVA.

13. Explain about Packages in JAVA.

(OR)

14. Explain about Interface in JAVA.

15. Explain about the Inheritance in JAVA.

(OR)

16. Explain about Hybrid Inheritance with JAVA Program.

17. Explain about Types of Exceptions with examples in JAVA.

(OR)

18. Explain about Exception Handling with example in JAVA.

(7)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (AI)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: Document Oriented Database	Duration	: 3 Hrs
Paper Code	: R23AI301	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 11/11/2025

SECTION-A

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

1. What are the characteristics of Database Approach?

2. Briefly explain multiple views of Data.

3. Write the features of MongoDB.

4. Write short notes on Data types in MongoDB.

5. Explain the process of creating a collection in MongoDB.

6. Write all the benefits of Data Modelling.

7. List out types of Indexes.

8. What are the properties of indexes?

SECTION-B

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

9. Explain the DBMS Architecture.

(OR)

10. Explain sharing of Data and multiuser Transaction Processing.

11. What is Document Database? Explain its features.

(OR)

12. Explain the Database commands of MongoDB with examples.

13. Explain about CRUD operations of MongoDB.

(OR)

14. Explain about Insert, Read, Update and Delete operations on Documents.

15. Explain about the normalized data model.

(OR)

16. Explain about Embedded document data model.

17. Explain indexing strategies in detail.

(OR)

18. Describe the impact of indexing on read and write operations in MongoDB.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [DS] & BCA Hons	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Python Programming for Data Analytics**	Duration	: 3 Hrs
Paper Code	: R23DS301/R23MCSC302	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 11/11/2025

SECTION-A

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

1. Explain about Variables and identifiers in Python?

2. Explain about Break and Continue Statement?

3. Explain about Recursive Functions?

4. Explain about Packages in Python?

5. Explain about User Defined Exceptions?

6. Explain about Aggregation?

7. Explain about Pandas data frame basics?

8. Explain about String Manipulation?

SECTION-B

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

9. Explain about looping statements (FOR, WHILE)?

(OR)

10. Explain Operations on Strings in Python?

11. Explain about Modules in Python?

(OR)

12. Explain about Lists & Its Methods in Python?

13. Explain about Abstract Classes in Python?

(OR)

14. Explain about Exception Handling in Python?

15. Explain about Computation on NUMPY arrays?

(OR)

16. Explain about DataFrames?

17. Explain about Uivariate Plots-Histograms?

(OR)

18. Explain about Data Wrangling ?

(19)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc Honours (SD)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Content Management System**	Duration	: 3 Hrs
Paper Code	: R23WT302	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 13-11-2025

SECTION-A

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

1. Explain features of CMS.

2. How does a CMS compare with traditional static website development.

3. What is word press and write is its primary purpose.

4. What are the main advantages of using word press for website development.

5. Explain procedure to select themes in word press.

6. Explain about DNS.

7. Explain about shopping cart plugin.

8. Explain about extension manager of Joomla.

SECTION-B

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

9. What is CMS? Explain its advantages and disadvantages.

(OR)

10. Explain types of CMS and its applications.

11. Explain the features of word press.

(OR)

12. What are the steps involved in installing word press.

13. How does the process of adding and publishing posts differ from creating pages in word press.

(OR)

14. What are the different types of content that can be added to word press website.

15. Explain about features and advantages of Five chart plugin.

(OR)

16. Explain the following.

a) Calendar plugin b) Search plugin.

17. Explain about component Menu.

(OR)

18. Explain about Joomla architecture.

(20)

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(AI)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Data Processing and Visualisation**	Duration	: 3Hrs
Paper Code	: R23MAI304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 13-11-2025

SECTION-A

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

1. Explain how to shape data for use in Tableau?

2. Explain about Line Charts?

3. Explain about Data Hierarchies in Tableau?

4. Explain about Spark line's in Tableau?

5. Explain about Scatter Plot in Tableau?

6. Explain about Funnel Chart and Gnatt Chart?

7. Explain about Pace Chart?

8. How to Visualize categorical Data in Power BI?

SECTION-B

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

9. Explain in detail about tools of Tableau?

(OR)

10. Explain in detail about how to shape your Data in Tableau.

11. Explain in detail how to distribute Dashboards in Tableau?

(OR)

12. Explain in detail how to create Sets in Tableau?

13. Explain about Bullet Graphs and Histograms in detail?

(OR)

14. Explain about Heat map and Dual-Axis combination chart in detail?

15. Explain in detail about Donut Chart and Funnel Chart?

(OR)

16. Explain about Dual Axis Map and sequential Path in Tableau?

17. Explain about creating Basic report in Power BI in detail?

(OR)

18. Explain in detail about Transforming Data in Power BI?

(21)

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BSc .Hons[Data Science]	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Data Mining Techniques Using 'R'**	Duration	: 3Hrs
Paper Code	: R23DS302	Time	: 2pm-5pm
W.E.F	: 2024-2025	Date	: 13-11-2025

SECTION-A

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

1. What is Data Mining? What are the stages of Data Mining Process?

2. Explain KDD vs Data Mining.

3. Explain Data Mining Query Language?

4. What is Data Cleaning?

5. Write about AOI for Data Characterization?

6. Explain Attribute Selection Measures.

7. Define Cluster Analysis.

8. Explain Antecedent, Consequent in association rules.

SECTION-B

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

9. Explain about the Data Mining Techniques.

(OR)

10. Explain about Data Mining Task Primitives.

11. Explain about the Integration of Data Mining System with a Data Warehouse.

(OR)

12. Explain about the Data Preprocessing.

13. Write about the Apriori Algorithm?.

(OR)

14. Explain Pattern-Growth Approach for mining Frequent Item sets.

15. Explain about the Decision tree Induction algorithm?

(OR)

16. Write about the Bayes Classification Methods..

17. Explain about the DBSCAN?

(OR)

18. Explain about the ECLAT?

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BSc.Hons(CS)/B.C.A Hons	Max Marks	: 60
Subject	: Computer Science & Applications	Pass Mark	: 24
Title of Paper	: **Data Structures Using 'C'/Data Structures**	Duration	: 3Hrs
Paper Code	: R23CSC302/R23BCA302	Time	: 2pm-5pm
W.E.F	: 2024-2025	Date	: 13-11-2025

SECTION-A

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

1. Write an algorithm for sum of two numbers.
2. Explain about Time Complexity.
3. Explain about Types of Linked Lists.
4. Explain about Advantages of Linked Lists.
5. Explain different types of Queues.
6. Explain about insertion Sort.
7. Explain about Tree terminology.
8. Write Applications of Graph.

SECTION-B

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

9. Explain about classification of data Structures.

(OR)

10. Explain about types of arrays.

11. Write a Program to implement Single Linked List.

(OR)

12. Explain about Double Linked List.

13. Explain about Queue and its operations

(OR)

14. Write a program to implement Stack operations using Array concept.

15. Explain about Binary Search.

(OR)

16. Explain about Quick Sort.

17. Explain about DFS traversing technique.

(OR)

18. Explain about Binary Search Tree.

(23)

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BBA.HONS	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Business Environment**	Duration	: 3Hrs
Paper Code	: R23BBA303	Time	: 2 pm-5pm
W.E.F	: 2024-2025	Date	: 31-10-2025

SECTION-A

I. Answer ALL of the following Questions **5X12=60M**

1. Define business environment. Explain various factors effecting business environment.

(OR)

2. Discuss the salient features of Indian economy and its evolution in the recent years.

3. Discuss industrial policy 1991.

(OR)

4. Write a note on competition act and its salient features in brief.

5. Explain the concepts and definition of MSME.

(OR)

6. Discuss in brief the problems faced by MSME sector.

7. Write various components or elements of BOP.

(OR)

8. Define foreign exchange control. Write the reasons for foreign exchange control.

9. Write a brief note on WTO and World Bank.

(OR)

10. Discuss the evaluation and functions of IMF and BRICS.

(24)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hons [Gen, TP]	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Business Laws**	Duration	: 3 Hrs
Paper Code	: R23COM303	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 31-10-2025

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Define 'Contract" and explain the essential elements of a Valid Contract.

(OR)

2. Explain the Classification of Contracts.

3. Define" Acceptance', What are the essentials of a Valid Acceptance? Explain

(OR)

4. Define 'Offer' and explain the essentials of a Valid Offer.

5. Who is a 'Minor'? Explain the rules regarding Minor's Agreement.

(OR)

6. Write the rules regarding Contingent Contracts.

7. Explain the Rights of an Unpaid Vendor under the Sale of Goods Act.

(OR)

8. Write an essay on Consumer Protection Councils.

9. Write the legal aspects regarding Digital Signature.

(OR)

10. Discuss about the Contract? Procedures according to the IT Act, 2000.

Room No: _____ **Regd No:** _____ (25)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Com Hons [Gen, TP, Comp] /BBA Hons /BBA [BA] & B.Sc Hons
Max Marks : 50
Subject : Commerce
Pass Mark : 20
Title of Paper : **Project Management**
Duration : 2 Hrs
Paper Code : R23SDP301
Time : 2 pm – 4 pm
W.E.F : 2024-25
Date : 24.10.2025

SECTION-A

I. Answer any FOUR of the following Questions **4X5=20M**

1. What is Project management and Explain its need
2. Discuss different classification of Projects.
3. What are the steps or stages involved in the project?
4. What are the sources of new project ideas
5. What is project planning? explain its need
6. Describe the project planning process.
7. Explain about project evaluation
8. What are elements of project management?

SECTION-B

II. Answer any THREE of the following Questions **3X10=30M**

9. Describe the different phases of project management life cycle.
10. Explain roles of the project manager in managing a project successfully?
11. What is feasibility study? Explain its market feasibility and technical feasibility
12. What do you mean by screening business ideas? What are the steps involved in it.
13. Define project delay. What causes a project to get delayed?

Room No: _____ Regd No_____ (26)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Honours	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Business Statistics and Mathematics**	Duration	: 3Hrs
Paper Code	: R23BBA304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 03-11-2025

SECTION-A

I. Answer any FIVE of the following Questions **5X12=60M**

1. Discuss various methods of Data Collection.

(OR)

2. The profits of two companies A and B are given below Draw a Multiple bar diagram to the following data.

Year	Profits	
	Company A	Company B
2010	100	90
2011	120	95
2012	145	108
2013	162	126

3. Find Median to the following data

CI	40-50	50-60	60-70	70-80	80-90
F	5	12	23	8	2

(OR)

4. Calculate Mean deviation about median to the following data.

C.I	10-20	20-30	30-40	40-50	50-60
F	5	10	15	10	5

5. Calculate correlation to the following data.

X	10	15	12	17	13	16	24	14	22	20
Y	30	42	45	46	33	34	40	35	39	38

(OR)

6. Calculate Spearman rank correlation for the following data.

x	20	14	36	29	5	11
y	19	9	25	10	2	6

7. If A= {1,2,3,4,5} B= {4,5,6,7,8}and C= {7,8,9,10,11} the prove that (A U B) U C=A U (BUC)

(OR)

8. If A={2,4,6,8} B={2,3,5,7}and C={3,4,5,6} the prove that A∩(B U C) = (A∩B) U (A∩C)

9. Explain Different types of Matrices.

(OR)

10. If $A=\begin{pmatrix}2 & 1\\ 3 & 4\end{pmatrix}$ $B=\begin{pmatrix}3 & 2\\ -2 & 3\end{pmatrix}$ then prove that $(A+B)^2 \neq A^2+2AB+B^2$.

Room No: _____ Regd No: _____ (27)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hons [Gen, TP]	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Banking Theory And Practice**	Duration	: 3 Hrs
Paper Code	: R23COM304	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 03-11-2025

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Explain different types of banks

(OR)

2. Explain the functions of commercial banks

3. Explain advantages of E-Banking

(OR)

4. Explain the functions of investment banking

5. Merits and demerits of EXIM Bank

(OR)

6. What are characteristics of co-operative banks

7. Explain meaning and definition of banker and customer

(OR)

8. What is KYC explain its norms

9. Explain the Duties of Collecting Banker

(OR)

10. Explain the payment gateways.

(29)

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hons [Comp]	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Change Management**	Duration	: 3 Hrs
Paper Code	: R23MCOM301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 05-11-2025

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Explain the significance and importance of change management.

(OR)

2. Discuss the resource dependence and population Ecology.

3. Write about Incremental change and Radial change.

(OR)

4. Explain the factors leads to changes in Organizations.

5. Write about the steps in the process of change

(OR)

6. Explain the absorbing Changes into the organization.

7. Write about Emerging profit HR in the management of change.

(OR)

8. How to managing work stress for enhancing employee productivity.

9. Discuss the Indian Experiences OD in public and private Enterprises.

(OR)

10. Discuss the Third Party and Inter Group Interventions.

(29)

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BBA.Hons[Business Analytics]	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Accounting For Managers**	Duration	: 3Hrs
Paper Code	: R23BBBA301	Time	: 2pm to 5pm
W.E.F	: 2024-2025	Date	: 11/4/2025

SECTION-A

I. Answer ALL of the following Questions **5X12=60M**

1. Explain the accounting concepts.

(OR)

2. Prepare journal in the books of K.K.Co from the following transactions : 2010

		Rs
Dec 1	started business with a capital of	50,000
Dec 6	Paid into bank	20,000
Dec 8	Purchased goods for cash	4,000
Dec 9	paid to Ram	2,000
Dec 10	Cash sales	3,000
Dec 12	Sold to Han for cash	2,000
Dec 15	Purchased goods from Ram	4,000
Dec 18	Paid wages to workers	300
Dec 22	withdrawn from bank	3,000
Dec 25	Paid Ram by cheque	500
Dec 31	Withdrawn for personal use	200

3. What is subsidiary book? Explain various types in subsidiary books.

(OR)

4. Enter the following transactions in three column cash book: 2008

January 1 Cash in hand Rs.5,375;Balance at bank Rs.15,490.
3 Cash Sales Rs 6,400.
5 Paid Rs.7000 in bank
6 Received a cheque for Rs.700 from Sneh
8 Paid into bank Sneh cheque for Rs.700.
10 Paid to Anurag by cheque Rs.980 and discount allowed by him Rs.20
12 Cash purchases Rs.2,500
14 Withdrawn from bank for office use Rs.5,000
15 Received cheque for RS.950 from lucky &Co . allowed him discount Rs.50
18 Cash sales Rs.7,500
19 Paid into bank Lucky's & Co's for Rs.950 and cash Rs.4,000
21 Cash paid for stationery Rs.120
23 Paid commission to Rakesh by cheque Rs.500
25 Received cheque for Rs.1,000 from Chandra Mohan and paid the same into bank

[P.T.O]

27 Lucky & Co's cheque dishonoured

29 Drew a cheque for Rs.800 for personal use

31 Paid salaries by cheque Rs.1,500 and cash Rs.500

31 Bank charges Rs.20 and insurance premium Rs.52 as shown in pass book.

5. Prepare trail balance from the following:

Opening Stock	78,000	Insurance	2,000
Free holding premises	1,50,000	Bad debts reserve	1,500
Plant & machinery	45,000	Commission received	15,000
Wages	10,000	Commission paid	5,000
Sundry debtors	60,000	Bad debts	1,500
Carriage inward	900	Office Expenses	7,500
Carriage outward	1,000	Salaries	10,000
Factory expenses	8,000	Travelling expenses	1,000
Royalty	1,000	Legal expenses	1,000
Purchase of raw materials	75,000	Cash in bank	4,200
Factory rent	7000	Cash in hand	4,000
Capital	80,000	Loan taken	30,000
Discount allowed	4,000	Office rent	4,000
Discount received	3,600	Sales(net)	3,30,000
Sundry creditors	20,000		

(OR)

6. What is Error? Explain the types of errors.

7. What is Bank Reconciliation statement? Explain its need.

(OR)

8. From the following particulars ascertain the balance that would appear in the cash book of Roy & Co, as on 31st march, before and after making the necessary adjustments:

1. Overdraft as per Pass book as on 31st march, 2008 — 540
2. Cheques drawn but not presented upto 31st march, 2008 — 2,800
3. Cheques paid into bank but not cleared upto 31st march 2008 — 3,900
4. Interest on overdraft as per pass book not entered in the cash book — 20
5. Insurance premium paid by the bank not entered in the cash book — 400
6. Interest on investments collected by the bank appeared in the pass book — 500
7. In June Roy &co . has discount with the bank a bill for Rs.500 and had entered this cash book but the proceeds credited in the pass book amounted to Rs.490.

[P.T.O]

9. What is final account? Explain its objectives.

(OR)

10. From the following balances taken from the books of Ved & Co., prepare trading and profit & loss Account for the year ending 30th June, 2006 and Balance sheet as on that date:

Capital	35,000	Returns outward	110
Buildings	18,750	Salaries	1,110
Machinery	9,250	Discount allowed	200
Debtors	7,000	Opening stock (1-7-2005)	16,500
General expenses	800	Bill payable	5,000
Rent paid	3,710	Sales	63,500
Drawings	650	Purchases	46,850
Electric charges	190	Wages	2,500
Carriage inward	850	Cash in hand	1,800
Cash at bank	3,000	Sundry creditors	10,000
Returns inward	450		

Closing stock is valued at Rs. 18,210

(32)

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BBA Hons	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Organisational Behaviour**	Duration	: 3Hrs
Paper Code	: R23BBA302	Time	: 2 pm - 5 pm
W.E.F	: 2024-2025	Date	: 13-11-2025

SECTION-A

I. Answer ALL of the following Questions **5X12=60M**

1. Define Organizational Behaviour. Explain the factors influencing Organizational Behaviour.

(OR)

2. Describe the learning theories in detail.

3. Explain the impact of external factors on group behaviour.

(OR)

4. What are the conflicts in organization? And measures to resolve inter group conflicts.

5. Define leadership. List out the characteristics of a good Leader.

(OR)

6. What are the theories of leadership?

7. What is the role of change agents?

(OR)

8. Explain the significance and process of organisational development.

9. Organizational culture vs Organization climate.

(OR)

10. Discuss in brief about organizational power and politics.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

(33)

Class	: II BBA Hons	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Business Laws**	Duration	: 3 Hrs
Paper Code	: R23BBA301A	Time	: 2pm & 5pm
W.E.F	: 2025-26	Date	: 11/11/2025

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Define "contracts" and explain about the essentials of a valid contract

(OR)

2. Who is a minor? Explain the rules regarding minor's Agreement

3. Define promissory note and Bills of exchange and write about its differences.

(OR)

4. Explain the features of Promissory Note and bill of exchange

5. Discuss briefly about various types of companies.

(OR)

6. Explain about various differences between MOA and AOA.

7. Explain differences between Sale and Agreement to sale.

(OR)

8. Discuss briefly about sale by Non-owner and Auction Sale.

9. Discuss about the Consumer Dispute Redressal Machinery.

(OR)

10. Explain the rights of unpaid vendor under the Sale of goods act.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BCom.Hons[Gen/TP/Computers]	Max Marks	: 60
Subject	: Commerce And Management	Pass Mark	: 24
Title of Paper	: **Advanced Accounting**	Duration	: 3Hrs
Paper Code	: R23COM301	Time	: 2pm to 5pm
W.E.F	: 2024-2025	Date	: 11/11/2025

SECTION-A

I. Answer the following Questions **5X12=60M**

1. Explain features of receipts and payments account.

(OR)

2. Visakha Sports Association extracts the following receipts and payments A/c for the year ended 31-dec-2020.from the particulars given, prepare income and expenditure a/c.

Dr **Cr**

Receipts	RS	**Payments**	Rs
To Balance b/d	1,125	By News Paper	750
To Subscriptions	2,900	By Rent	250
To Tournaments Funds	750	By Salaries	1,800
To Life Membership fee	1,000	By Office Expenses	1,200
To Entrance Fee	100	By Sports Equipments	1,150
To Donations for Building	1,500	By Tournament Expenses	450
To Sale of News Paper	50	By Balance c/d	1,825
	7,425		**7,425**

Adjustment:

a) Subscriptions outstanding on 31-dec-2019, Rs.450 and on 31-dec-2020 Rs.400. Subscriptions received including Rs.100 on account of the year 2021.

b) Sports equipment was valued on 31-dec-2019, @ Rs.550, and 31-dec-2020,@ Rs.1090

c) Office expenses include Rs.150, for the year 2019 whereas Rs.200 is still payable on this account for 2020.

3. Difference between statement of affairs and balance sheet.

(OR)

4. Mr.Ashok keeps his books on incomplete records following information is given below.

	01 April 2020 Rs.	31 March 2021 Rs.
Cash in hand	1,000	1,500
Cash at bank	15,000	10,000
Stock	1,00,000	95,000
Debtors	42,500	70,000
Business premises	75,000	1,35,000
Furniture	9,000	7,500
Creditors	66,000	87,000
Bills payable	44,000	58,000

During the year he withdraw Rs.45,000 and introduced Rs.25,000 as further capital in the business compute the profit or loss of the business.

[P.T.O]

5. Give the merits and demerits of hire purchases system.

(OR)

6. The following are the particulars relating to hire purchase:

Purchaser – Ram & Co.
Date of purchase – Jan 1 2020
Cash price – Rs.12,894
Payments – Rs.2,000 on singing of the agreement and the balance in the three equal annual instalments of Rs.4,000 due on 31st December each year.
Rate of interest – 5% per annum
Depreciation – 10% on fixed instalment method
Prepare necessary ledger accounts in the books of Ram & Co.
Calculations are to be made to the nearest rupee.

7. Define partnership? Explain characteristics or features of partnership.

(OR)

8. A and B share profits in the proportions of 3/5 and 2/5. Their balance sheet on dec 31 2020 was follows;

Liabilities	Rs	Assets	Rs
Sundry creditors	41,500	Cash in hand	26,500
Bills payable	4,000	Bills receivables	3,000
Capital: A- 30,000		Debtors	16,000
B -16,000	46,000	Stock	20,000
		Fixtures	1,000
		Land & buildings	25,000
	91,500		91,500

On the date C was admitted into partnership on the following terms:

a) That c pays Rs.10,000 as his capital and Rs.5,000 as goodwill for his 1/6th share in profits.
b) That stock and fixtures be reduced by 10% and 5% provision for doubtful debts be created on sundry debtors and bills receivable.
c) That the value of land and buildings be appreciated by 20%.

Prepare necessary accounts and the new balance sheet on the admission of C.

9. What is the rule in Garner Vs Murray case

(OR)

10. X,Y and Z are partners sharing profits and losses in the ratio of 4:2:3. On 1st January 2020 they agreed to dissolve the partnership. their balance sheet was as follows:

Liabilities		Rs	Assets	Rs
Profit and loss		4,500	Buildings	45,000
Reserve fund		12,600	Machinery	15,000
Bills payable		4,100	Furniture	3,700
Sundry creditors		13,000	Stock	19,400
Capital Accounts:	Z	3,000	Debtors	31,000
	Y	46,000	Investments	24,000
	X	68,000	Bills receivable	5,600
			Cash at Bank	6,500
			Cash in Bank	1,000
		1,51,200		1,51,200

The assets realised: Investments Rs.20,400; Bills receivable and debtors Rs.28,200; stock Rs.14,550; Furniture Rs.2,050; Machinery Rs.8,600; buildings Rs.26,400.All the liabilities were paid off. The Cost of realization was Rs.600. Show the realisation account, bank account, and the capital account.

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

(39)

Class	: II B.Com Hons [Gen, Comp]	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Income Tax**	Duration	: 3 Hrs
Paper Code	: R23COM302	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 13-11-2025

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Write any 10 Exempted Incomes U/s 10.

(OR)

2. Following are the Incomes of Sri Ram for the previous year 2023-2024 compute total Income for the Assessment year 2024-2025 in the following situations if he is

a) Resident b) Not ordinarly resident c) Non-resident

a) Salary received in India from a former employer of Dubai	9,58,000
b) Income from a property in India but received in U.K	2,79,000
c) Income from a property in Bangladesh but received in Pakistan	20,00,000
d) Income from a property in Bangladesh but received in India	9,30,000
e) Income from business in Nepal but controlled from India	2,00,000
f) Profit from business in Gujarat controlled from USA	6,20,000

3. What is perquisite? Explain various types of perquisites.

(OR)

4. Smt Siri is working as sales promotion Officer, her salary details are as follows : Basic pay 25,000 p.m, D.A. 7,000 p.m., HRA 4,000 p.m, (She is living in her own house) Entertainment allowance 1,000 p.m, CCA 1,500 pm, during the previous year. She carned a commission of 1,00,000, and expenses in curred in this connection 35,000. She claims these expenses as deduction. Professional Tax paid by her 200 p.m, Compute income from salary she is working in a Government Department.

5. How to compute taxable income from business.

(OR)

6. Mr. R.K. is owns two houses and from the following particulars compute income from house property.

	House – I	**House – II**
Municipal value	20,000	24,000
Actual Rent value	24,000	34,000
Fair Rent value	30,000	32,000
Municipal Taxes	2,000	4,200
Insurance	500	850
Interest on loan taken to constract the house	3,600	15,000
Un Realised Rent	Nil	2,000
Standard Rent	21,000	30,000

[P.T.O]

7. What is capital Asset? Explain the types of capital Assets.

(OR)

8. The investments of Mr.Amar during the previous year relevant to the current Assessment year are as under.

1) 20,000 5% Minicipal Bonds.

2) 18,000 12 years National Plan saving certificates.

3) 10,000 8% Bombay Development Loan.

4) 40,000 6% Tax free debentures of XYZ Company Limited (Unlisted).

5) 20,000 9% Tax free debentures of ABC Company Limited (Listed).

6) 12,000 10% Textile Company debentures (Less tax listed).

On 01.12.2024 he bought 40,000 6% debentures of a paper company for this purpose he took a loan at 5% and paid 250 for brokerage. The interest on these securities was realised through bank and banker charged 1% on gross interest. Compute income from interest on securities.

9. Explain any six deduction U/s 80.

(OR)

10. From the following particulars of Mr. Vinod compute total income for the Assessment year 2025-2026.

1	Income from salary	1,30,000
2	Income from house property	60,400
3	Loss from self-occuped house	10,000
4	Interest on Bank Deposit	12,000
5	Income from agricultural land	10,000
6	Race winning (gross)	35,000
7	Income from business	30,000
8	Donation to C.M relief fund	10,000

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

38

Class	: II B.Com Hons [TP]	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Income Tax-II**	Duration	: 3 Hrs
Paper Code	: R23COMT302	Time	: 2 pm - 5 pm
W.E.F	: 2024-25	Date	: 13-11-2025

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Explain Admissible and Inadmissible expenses.

(OR)

2. The following is the profit and loss account of Mr.Mahesh for the year ending 31st March, 2025.

Particulars	Rs.	Particulars	Rs.
To Salaries	40,000	By Gross profit	4,80,000
To Office Expenses	10,000	By Dividends	10,000
To Depreciation	20,000	By Commission	5,000
To GST	5,000	By Rent of house property	3,000
To Legal Expenses	15,000	By Brokerage	2,000
To Income Tax	10,000	By Sundry receipts	10,000
To Repairs	6,000		
To Donations	4,000		
To Net Profit	4,00,000		
	5,10,000		**5,10,000**

Additional Information :

a) Salary includes 6,000 paid to workers employed at house.

b) Legal expenses includes 3,000 paid as advance are relating to the personal case.

Compute his income from business for the A.Y 2025-2026.

3. Explain Cost of Improvement and Cost of Acquisition.

(OR)

4. Viswa purchased a house property for 76,000 on 10th May, 1984. He got the first flor of the house constructed in1988-89 by spending Rs.80,000/- He died on 12th September, 2004. The property is transferred to Mr.Viswa by his will. Mr.Viswa spends Rs,81,900/- during 2005-2006 for Renewal/Reconstruction of the property Mr.Viswa sold the house property for Rs.18,00,000/- on 15th March, 2024 (brokerage paid by Mr.Viswa is Rs.18,000/-) The fair market value of the house on 1st April, 2001 is Rs.3,20,000 find out the amount of capital gains chargeable to Tax for the A.y. 2025-2026. The cost inflation index for 2001-2002 was 100 for 2005-2006 it was 117 and 2024-2025 it was 363.

5. Explain deduction U/S 57.

(OR)

[P.T.O]

6. The investment of Mr.Pandu during the previous year relevant to the Current Assessment year are as under.

1) 20000 5% Municipal Bonds.
2) 10,000 8% Bombay Development Loan.
3)18,000 12 years National Plan Saving Certificates.
4) 30,000 5.5% Tax free Indian government Loan.
5) 40,000 6% Tax free Debentures of XYZ Company Ltd. (Un listed)
6) 20,000 9% Tax free Debentures of ABC Company Ltd. (listed)
7) 12,000 10% Taxtile Company debentures (Less tax listed)

01-12-2024 he bought 40,000 6% Debentures of a paper company for this purpose he took A loan at 5% and paid 250 for brokerage. The interest on these securities was relised through bank and the banker charged 1% on gross interest. Compute Income from interest on Securites

7. Explain specific incomes of other person to be included in assesses total Income.

(OR)

8. Compute the total income of Mr. D and his family members from the information given below for the assessment year 2023-24.

i) Income of Mr. D from business 3,00,000
ii) Salary of Mrs D (D's wife) from her employer 2,40,000
iii) Income from dance performance by Miss S minor daughter of Mr. D. 2,50,000
iv) Interest received on deposits made by Miss S out of her income from dance performance 45,000
v) Income from vacant land to Mrs. D, the land gifted to here by her husband before marriage. 30,000
vi) Salary of Mr. J (Major son of Mr. D) from a firm in which Mr. D and Mrs. D are partners of 10% each. 75,000
vii) Salary to Mr. D from above firm 60,000
viii) Salary to Mrs. D from above firm 90,000
ix) Amount received by Mst. H (Minor son of Mr. D) from lottery 70,000
x) Salary of Mrs. D from M/s B.J. Ltd., in which Mr. D. and his HUF holds 20% equity share capital in equal ratio. 90,000
xi) Income from house property acquired by Mr. D. 48,000

9. Explain provisions laid down in Income Tax Act in regard to setoff and carry forward losses.

(OR)

10. Write about carry forward losses.

(40)

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BBA.Hon[Business Analytics]	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Human Resource Management**	Duration	: 3Hrs
Paper Code	: R23BBBA302	Time	: 2pm ÷ 5pm
W.E.F	: 2024-2025	Date	: 13-11-2025

SECTION-A

I. Answer ALL of the following Questions **5X12=60M**

1. Describe the scope of HRM.

(OR)

2. Discuss the functions and objectives of HRM.

3. Define HRP. Explain the process of HRP.

(OR)

4. What are the problems involved in HRP?

5. Define Recruitment. Explain the sources of Recruitment.

(OR)

6. Explain about various selection Tests in detail.

7. Explain concepts and importance of training.

(OR).

8. Explain process of executive development.

9. Define compensation management. Explain the objective of compensation.

(OR)

10. Discuss the importance of Performance Appraisal.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BA Hons [Politics]	Max Marks	: 60
Subject	: Political Science	Pass Mark	: 24
Title of Paper	: **Western Political Thought:Ancient And Medival**	Duration	: 3 Hrs
Paper Code	: R23PS303	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 31-10-2025

SECTION-A

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

1. Ideal State.

2. Aristotle on Slavery.

3. Cicero Justice.

4. Features of Roman Political Thought.

5. William Ockham Legacy.

6. Aquinas views on the State.

7. Machiavelli's Human Nature.

8. Secular State.

SECTION-B

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

9. Explain the History of Western Political Thought.

10. Write about the Plato's theory of Justice.

11. Explain Aristotle's concept of the classification of Governments.

12. Explain Aristotle's views on Revolutions.

13. Describe the views of St.Avqustine on War and peace.

14. Explain cicero's influence on Western Political Thought.

15. Write about Thomas Aquinas four Cordinal Principles.

16. Explain the Political Philosophy of William Ockham

17. Explain the views of Machiavelli on Human Nature.

18. Analyse Machiavell's views on State and State craft.

Room No: _____ Regd No: _____

(42)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BA Hons [Politics]	Max Marks	: 60
Subject	: Political Science	Pass Mark	: 24
Title of Paper	: **Indian Federal System**	Duration	: 3 Hrs
Paper Code	: R23PS304	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 03 - 11 - 2025

SECTION-A

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

1. Features of Indian Federal System.

2. Sarkaria Commission.

3. Electoral Reforms in India.

4. Determinants of Voting Behaviour.

5. Balwant Rai Mehta Committee.

6. Grama Sabha.

7. Decentralisation.

8. Challenges of Rural Development.

SECTION-B

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

9. Explain the Legislative Relations between Central and State Governments.

10. Explain the features of Unitary Government.

11. Write an essay on recommendations of M.M.Punchhi Commission.

12. Write an essay on Controversial issues in Centre – State Relations.

13. Explain the powers and functions of the Election Commission of India.

14. Write an essay on the Anti – Defection Law.

15. Write an essay on Ashok Mehta Committee.

16. Write an essay on the functions of Municipal Corporation.

17. Write an essay on 73rd Constitutional Amendment Act.

18. Write an essay on 74th Constitutional Amendment Act.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BA Hon(Political Science)	Max Marks	: 60
Subject	: Political Science	Pass Mark	: 24
Title of Paper	: **Political Institutions**	Duration	: 3 Hrs
Paper Code	: R23PS301	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 11/11/2025

SECTION-A

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

1. Types of Executive.

2. Separation of Powers.

3. Unitary form of Government.

4. Parliamentary form of Government.

5. Types of Democracy.

6. Significance of Democracy.

7. Political Parties.

8. Public Opinion.

SECTION-B

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

9. Explain the Powers and Functions of Legislature.

10. Explain the Powers and functions of Judiciary.

11. Describe the Montesquieu's Doctrine of Separation of Powers.

12. Explain the Advantages and Disadvantages of Separation of Powers.

13. Explain the Merits and Demerits of Federal form of Government.

14. Write about the Merits and Demerits of Presidential form of Government.

15. Discuss the Meaning, Definitions and Principles of Democracy.

16. Explain the Necessary Conditions for the Success of Democracy.

17. Discuss the Classifications of Political Parties.

18. Explain about the Pressure Groups.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BA Hons [Politics]	Max Marks	: 60
Subject	: Political Science	Pass Mark	: 24
Title of Paper	: **Indian Constitution**	Duration	: 3 Hrs
Paper Code	: R23PS302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 13-11-2025

SECTION-A

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

1. Orgin of Constitution.

2. Montegue – Chems ford Reforms – 1919.

3. Constituent Assembly.

4. Preamble

5. Fundamental Rights.

6. Rule of Law.

7. Kesavananda Bharati Case – 1973.

8. Basis structure of Indian Constitution.

SECTION-B

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

9. Define Constitution and explain the types of Constitution.

10. Discuss the merits and demerits of the Flexible and Rigid Constitution.

11. Give a detail note on Minto Marely's Reforms – 1919.

12. Explain the Government India Act – 1935.

13. Explain the Salient features of Indian Constitution.

14. Explain the Nature and composition of Constituent Assembly.

15. Explain the Fundamental Duties of Indian citizens.

16. Explain the Directive Principles of State Policy.

17. "Supreme Court works as the Guardian of the Fundamental Rights" – Explain.

18. Give a detailed note on Golakhnath Case – 1967.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.B.Sc.Hons[Electronics]	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: **Analog Electronics**	Duration	: 3Hrs
Paper Code	: R23ELE303	Time	: 2pm - 5pm
W.E.F	: 2024-2025	Date	: 31-10-2025

SECTION-A

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

1. Describe the class A power amplifier?
2. Draw the emitter follower circuit and describe briefly about its operation?
3. Explain distortion and bandwidth?
4. What is transfer gain in feedback?
5. Write about input offset voltage and output offset voltage?
6. Define CMRR and Slew rate of an OP AMP?
7. Draw the inverting amplifier circuit and explain briefly about it?
8. Explain the operation of Schmitt trigger?

SECTION-B

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

9. Explain the working of class B power amplifier?

(OR)

10. Explain the transformer coupled amplifier?

11. Write about the effect of negative feedback on gain, gain stability and distortion and bandwidth?

(OR)

12. Explain the analysis of voltage and current in feedback amplifier circuit?

13. Explain the transfer characteristics of an operational amplifier?

(OR)

14. Explain about differential gain and bandwidth of an operational amplifier?

15. Explain the integrator and differentiator circuits using operational amplifier?

(OR)

16. Describe operation of square wave generator using operational amplifier?

17. Explain the operation of RC phase shift oscillator?

(OR)

18. Explain the working of UJT relaxation oscillator?

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BSc.Hons[Electronics]	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: **Electronic Communication System**	Duration	: 3Hrs
Paper Code	: R23ELE304	Time	: 2pm - 5pm
W.E.F	: 2024-2025	Date	: 03-11-2025

SECTION-A

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

1. Explain the sky wave propogation.

2. What is antenna and its parameters.

3. Define amplitude modulation.

4. Explain the generation of DSBSC.

5. How varactor diode generates FM waves.

6. Explain the working of frequency modulation.

7. Explain the concept of sampling.

8. Define multiplexing.

SECTION-B

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

9. Explain the terms ground wave propogation and maximum usable frequency.

(OR)

10. Explain the terms folded dipole and parabolic antennas.

11. Explain the block diagram of AM radio transmitter.

(OR)

12. Explain the working of Amplitude modulation.

13. Explain the working of foster seeley discriminator.

(OR)

14. Explain the FM generation by ratio detector.

15. Explain the generation of Delta modulation.

(OR)

16. Explain the generation of Pulse code modulation.

17. What is multiplexing. Explain the working of FDM.

(OR)

18. Explain briefly about Satellite communication.

Room No: _____ Regd No: _____ (47)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [Elec & Comp]	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: **Semiconductor Devices And Materials**	Duration	: 3 Hrs
Paper Code	: R23ELE301/R23MELE301	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 4/11/2025

SECTION-A

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

1. Briefly describe Velocity Saturation in Semiconductors.

2. Describe Carrier Mobility and Its Importance in Semiconductors.

3. Briefly Describe the Significance of Hetero junctions in Semiconductor Devices.

4. Describe the Basic Structure and Operation of a MESFET.

5. Explain the C-V Characteristics of an Ideal MOS Capacitor.

6. Explain the Concept of Quantum Wells and Their Applications.

7. Describe the Structure and Function of Light-Emitting Diodes (LEDs).

8. Explain What Parasitic Capacitances are in BJTs.

SECTION-B

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

9. Discuss Avalanche Breakdown, its causes, and its effects on Semiconductors.

(OR)

10. Discuss the Injection and Recombination of Excess Carriers in Semiconductors.

11. Explain the Structure and I-V Characteristics of Metal-Semiconductor (MS) Contacts.

(OR)

12. Discuss the Structurer, Operation and C-V. Characteristics of Metal-Insulator Semiconductor (MIS) Structures.

13. Discuss the Structure, Operation and Device Characteristics of a MOSFET.

(OR)

14. Explain the Ideal and Non-Ideal MOS Capacitor Band Diagrams and C-V Characteristics

15. Explain the Concept and Applications of Quantum Dots and Carbon Nanotubes (CNTs).

(OR)

16. Explain the Working Principle and Structure of a Non-Volatile Memory Device.

17. Explain the Behavior of a BJT at High Frequencies.

(OR)

18. Discuss the Frequency Response of an RC-Coupled Amplifier.

Room No: _____ Regd No: _____

48

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Ele)	Max Marks	: 60
Subject	: Electronics	Pass Mark	: 24
Title of Paper	: Digital Electronics	Duration	: 3 Hrs
Paper Code	: R23ELE302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 13 - 11 - 2025

SECTION-A

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

1. What are the compares between BCD code and Gray code.

2. Obtain 1's and 2's complement of 1010101 and 0111000.

3. State and prove De-Morgan's theorem.

4. Write a brief note on SOP and POS forms with examples.

5. Explain about Magnitude comparator.

6. Draw and working of TTL logic.

7. Explain the working of JK-flip-flop with truth table.

8. Write a short note on General memory operations.

SECTION-B

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

9. Explain the concept of decimal to binary and binary to decimal conversion.

(OR)

10. Explain about 1's, 2's, 9's and 10's Complements with examples.

11. Explain about NAND as Universal gate (AND, OR, NOT, NOR from NAND).

(OR)

12. Write about Karnaugh Maps & Explain about 2, 3, 4 variable K-maps with Tables.

13. Explain the working of Half Subtractor & Full Subtractor with them Diagrams and truth tables.

(OR)

14. Define De-multiplexer? Explain the working of 1 to 4 De-multiplexer With diagrams.

15. Define Registers. Explain the operation of serial in serial out & parallel in And parallel out.

(OR)

16. Explain the working of Asynchronous Mod-10 Counter (or) Decade Counter With diagram.

17. Explain about RAM and its types (S-RAM, D-RAM).

(OR)

18. Explain Briefly about EEPROM and EAROM.

(49)

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [Mathematics & Computers]	Max Marks	: 60
Subject	: Mathematics	Pass Mark	: 24
Title of Paper	: **Group Theory And Problem Solving Sessions**	Duration	: 3 Hrs
Paper Code	: R23MAT301/R23MMAT301	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 11/11/2025

SECTION-A

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

1. Show that in a group G, for all $a,b \in G \ni (ab)^2 = a^2b^2$ iff G is abelian.

2. In a group G, for all $a \in G$ then prove that $o(a) = o(a^{-1})$.

3. If H is any subgroup of a group G then prove that HH = H.

4. Prove that any two left (right) cosets of a subgroup are either disjoint or identical.

5. Prove that every subgroup of an abelian group is normal.

6. Prove that the intersection of any two normal subgroups of a group is a normal subgroup.

7. Prove that every homomorphic image of an abelian group is abelian.

8. Find the regular permutation group isomorphic to the multiplicative group {1,-1,i,-i}.

SECTION-B

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

9. Show that the set Q^+ of all positive rational numbers form an abelian group under the composition defined by '0' such that $aob = \frac{ab}{3} \ \forall \ a, b \in Q^+$.

(OR)

10. Prove that a finite semi group satisfying cancellation laws is a group.

11. If H and K be two subgroups of a group G then prove that HK is a subgroup of G iff HK = KH.

(OR)

12. State and prove Lagrange's theorem.

13. Prove that a subgroup H of a group G is a normal subgroup of G iff every left Coset of H in G is a right Coset of H in G.

(OR)

14. If G is a group and H is a subgroup of index 2 in G, then prove that H is a normal subgroup of G.

15. The set of all automorphisms of a group G forms a group w.r.t compositions of mappings.

(OR)

16. State and prove fundamental theorem on homomorphism of groups.

17. State and prove Cayley's theorem.

(OR)

18. If G is an infinite cyclic group then prove that G has exactly two generators which are inverse of each other.

(57)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Sc Honours (Mathematics)
Subject : Mathematics
Title of Paper : **Mathematical Special Functions & Problem Solving Session**
Paper Code : R23MAT304
W.E.F : 2024-25

Max Marks : 60
Pass Mark : 24
Duration : 3 Hrs
Time : 2pm-5pm
Date : 03-11-2025

SECTION-A

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

1. Show that $\int_0^1 \frac{dx}{\sqrt{-\log x}} = \sqrt{\pi}$.

2. Find $L_0(x), L_1(x), L_2(x)$

3. Prove that $H_n^1(x) = 2xH_n(x) - H_{n+1}(x)$.

4. Find $H_0(x), H_1(x), H_2(x)$

5. Prove that $P_n(-x) = (-1)^n P_n(x)$

6. Find $P_0(x) = 1, P_1(x) = x, P_2(x) = \frac{3x^2-1}{2}$

7. Prove that $J_2 = J''_0 - x^{-1}J_0$

8. Show that $x^2 J''_n = (n^2 - n - x^2)J_n + xJ_{n+1}$

SECTION-B

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

9. Prove that $\beta(m,n) = \frac{\Gamma(m)\Gamma(n)}{\Gamma(m+n)}$

(OR)

10. Show that $\Gamma(-n+\frac{1}{2}) = \frac{(-1)^n 2^n \sqrt{\pi}}{1.3.5.....(2n-1)}$

11. State and prove Orthogonal property of $L_n(x)$

(OR)

12. Prove that $(n+1)L_{n+1}(x) = (2n+1-x)L_n(x) - nL_{n-1}(x)$

13. State and prove Rodrigues formula of $H_n(x)$

(OR)

14. Prove that $H_n(x) = 2^n \left\{\exp(\frac{-1}{4}\frac{d^2}{dx^2})x^n\right\}$

[P.T.O]

(51)

15. State and prove generating function of $P_n(x)$

(OR)

16. Prove that $nP_n = xP'_n - P'_{n-1}$

17. Prove that $xJ'_n(x) = nJ_n(x) - xJ_{n+1}(x)$

(OR)

18. Show that $J_{-n}(x) = (=1)^n J_n(x)$ where n is positive integer.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Mat)	Max Marks	: 60
Subject	: Mathematics	Pass Mark	: 24
Title of Paper	: Numerical Methods And Problem Solving Sessions	Duration	: 3 Hrs
Paper Code	: R23MAT302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 13-11-2025

SECTION-A

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

1. Prove that $(1+\Delta)(1-\nabla) = 1$ and $E\nabla = \Delta$.

2. If μ_1= 3.49, $\mu_{1.4}$= 4.82, $\mu_{1.8}$=5.96, $\mu_{2.2}$ =6.5 find $\mu_{1.6}$

3. Apply Gauss forward formula to find the value of μ_9 if μ_0= 14, μ_4= 24, μ_8=32, μ_{16} =40.

4. Find the third divided difference with arguments 2, 4, 9, 10 of the function $f(x) = x^3 - 2x$.

5. Using Gauss forward interpolation formula find f(25) given that

f(20) = 14, f(24) = 32, f(28) = 35, f(32) = 40.

6. Find a real root of the equation $x^3 - 2x - 5 = 0$ by using Newton-Raphson's Method.

7. Find a root of the equation $x^2 - 4x - 10 = 0$ by using Bisection method.

8. Find the least square line y = a + bx and y(5) for the following data.

X	0	2	5	7
Y	-1	5	12	20

SECTION-B

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

9. Show that i. $\nabla = E^{-1}\Delta$. ii. $\Delta - \nabla = \Delta\nabla$

iii. $\Delta + \nabla = \frac{\Delta}{\nabla} - \frac{\nabla}{\Delta}$ iv. $\Delta = \nabla(1-\nabla)^{-1}$

(OR)

10. Find the missing entries in the following table.

X	0	1	2	3	4	5
Y=f(x)	0	-	8	15	-	35

11. State and prove Newton Backward interpolation formula.

(OR)

12. By Lagrange's interpolation formula, find the value of y at x = 5, given that

X	1	3	4	8	10
Y	8	15	19	32	40

13. State and prove Gauss Backward interpolation formula.

(OR)

14. Apply Stirling's formula to find a polynomial of degree four which takes.

X	1	2	3	4	5
Y	1	-1	1	-1	1

[P.T.O

15. Find a real root of the equation $f(x) = x^3 - 2x - 5 = 0$ by Regula Falsi Method.

(OR)

16. Find the root of the equation $2x = \cos x + 3$ correct to three decimal places by iteration method.

17. Fit a Second degree parabola to the following data.

X	0	1	2	3	4
Y	1	5	10	22	38

(OR)

18. Fit an exponential function of the type $y = a.e^{bx}$ to the following data.

X	0	0.5	1.0	1.5	2.0	2.5
Y	0.10	0.45	2.15	9.15	40.35	180.75

54

Room No: _____ Regd No _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BSc.Hons(Bio-Technology)	Max Marks	: 60
Subject	: Bio-Technology	Pass Mark	: 24
Title of Paper	: **Molecular Biology**	Duration	: 3Hrs
Paper Code	: R23BT302	Time	: 2 pm - 5 pm
W.E.F	: 2024-2025	Date	: 31-10-2025

SECTION-A

I. Answer any FIVE of the following Questions **5X4=20M**
Draw Labelled Diagrams Wherever Necessary

1. Explain Watson and Crick model of DNA.

2. Write a note on Replication origin.

3. Explain the structure of Prokaryotic RNA polymerase.

4. Write a note on Reverse Transcription

5. Explain about Clustered genes.

6. Give a brief note on poly and mono cistronic mRNA.

7. Explain the adaptor hypothesis.

8. Explain Wobble hypothesis.

SECTION-B

II. Answer ALL the following Questions **5X8=40M**
Draw Labelled Diagrams Wherever Necessary

9. Explain genome organisation with specific reference to Eukaryotic genome.

(OR)

10. Give a detailed description on experiments to prove DNA as genetic material.

11. Explain the enzymology of replication.

(OR)

12. Explain the mechanism of rolling circle replication of DNA..

13. Explain the enzymatic synthesis of RNA

(OR)

14. Explain the four steps of Transcription

15. Give a detailed account on Lac operon.

(OR)

16. Give a detailed account on Trp operon.

17. Give a detailed explanation about Genetic Code.

(OR)

18. Write in detail about codon-anticodon interaction

55

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [Biotechnology]	Max Marks	: 60
Subject	: Biotechnology	Pass Mark	: 24
Title of Paper	: **Genetic Engineering**	Duration	: 3 Hrs
Paper Code	: R23BT303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 03-11-2025

SECTION-A

I. Answer any FIVE of the following Questions Draw labelled diagrams where ever necessary **5X4=20M**

1. Linkers and adapters.

2. Phage vectors.

3. Probes.

4. Labeling by primer extension.

5. Vector engineering.

6. Expression in plant and mammalian cells.

7. Pyrosequencing.

8. Site-directed mutagenesis.

SECTION-B

II. Answer ALL the following Questions Draw labelled diagrams where ever necessary **5X8=40M**

9. Write about the molecular tools in genetic engineering?

(OR)

10. Give an account on basics, history, scope and recent developments in genetic engineering?

11. Explain the gene transfer methods?

(OR)

12. Write about the properties and structure of plasmid vectors- Puc19 & pBR322 ?

13. Write about the principle, methods and types of PCR?

(OR)

14. Write an essay on labeling of DNA?

15. Give an account on construction of cDNA libraries?

(OR)

16. Write about the construction of genomic libraries?

17. Write an essay on Maxam gilbert & Sanger's, nicolsons sequencing?

(OR)

18. Give an account on gene therapy?

(56)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [Biotechnology]	Max Marks	: 60
Subject	: Biotechnology	Pass Mark	: 24
Title of Paper	: **Metabolism**	Duration	: 3 Hrs
Paper Code	: R23BT304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 05-11-2025

SECTION-A

I. Answer any FIVE of the following Questions Draw labelled diagrams where ever necessary **5X4=20M**

1. Anabolism and catabolism.

2. Gluconeogenesis.

3. Any two disorders of lipid metabolism.

4. Transamination.

5. Deamination.

6. Holoenzyme, apoenzyme and coenzyme.

7. Enzyme specificity.

8. Applications of immobilized enzymes.

SECTION-B

II. Answer ALL the following Questions Draw labelled diagrams where ever necessary **5X8=40M**

9. Give detailed account on Glycolysis?

(OR)

10. Give detailed account on C4 pathway?

11. Write about denovo synthesis of fatty acids?

(OR)

12. Write an essay on Ketogenesis?

13. Write about Urea cycle?

(OR)

14. Write an essay on Inborn errors of aromatic and branched chain amino acid metabolism?

15. Write an essay on Lock and Key model, Induced fit model?

(OR)

16. Write about classification and nomenclature of enzymes?

17. Write an essay on enzyme inhibition kinetics?

(OR)

18. Write down the factors that affecting enzyme activity ?

(57)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [Biotechnology]	Max Marks	: 60
Subject	: Biotechnology	Pass Mark	: 24
Title of Paper	: **Plant And Animal Biotechnology**	Duration	: 3 Hrs
Paper Code	: R23BT301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 13-11-2025

SECTION-A

I. Answer any FIVE of the following Questions Draw labelled diagrams where ever necessary **5X4=20M**

1. M.S media.

2. Applications of Somatic hybridization.

3. BT cotton.

4. Applications of DNA finger printing.

5. Cryopreservation.

6. Production of Insulin.

7. Ethical issues in animal biotechnology

8. Primary containment for biohazards.

SECTION-B

II. Answer ALL the following Questions Draw labelled diagrams where ever necessary **5X8=40M**

9. Write an essay on callus culture?

(OR)

10. Describe various steps of protoplast culture?

11. Give an account on Agrobacterium- mediated gene transfer?

(OR)

12. Write about principles and applications of RFLP, RAPD?

13. Give detailed account on primary culture and secondary culture?

(OR)

14. Write about the Transfection methods and its applications?

15. Write an essay on IVF?

(OR)

16. ~~Give~~ Write an essay on Gene therapy?

17. Write about bioethics in cloning and stem cell research?

(OR)

18. What is IPR? Explain types of IPR?

Room No: _____ Regd No: _____ (58)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II B.Sc Hons (Chemistry) Max Marks : 60
Subject : Chemistry Pass Mark : 24
Title of Paper : **Organic Chemistry [Halogen & Oxygen Organic Compounds]**
Duration : 3 Hrs
Paper Code : R23CHE302 Time : 2pm-5pm
W.E.F : 2024-25 Date : 13-11-2025

SECTION-A

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

1. Write any two preparations of Alkyl Halides.

2. Explain about Benzyne Mechanism.

3. Give the Mechanism of Pinacole – Pinacolone Rearrangement

4. Write the reactivity of Alcohols with PCl_3 and PCl_5.

5. Write the reactivity of Carbonyl compounds with $LiAlH_4$ and $NaBH_4$.

6. Write the Mechanism of HVZ Reaction.

7. Explain abouf Keta-enol Tautomerism.

8. What are epimers and anomers.

SECTION-B

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

9. Explain the Mechanism of SN^1 and SN^2 Reactions.

(OR)

10. Write the preparations of Aryl halides from Phenols and Sandmeyer's Reaction.

11. i) Write the preparation of $1^0,2^0,3^0$ alcohols by Grignard's reagent.

ii) Explain the Mechanism of Bouvaeult – Blanc Reduction.

(OR)

12. Write a note on the following.

i) Fries Rearrangement ii) Claisen Rearrangement

13. Describe the Reaction and Mechanism of the following Reactions.

i) Benzoin Condensation ii) Cannizzaro Reaction

(OR)

14. Explain the following Reactions

i) Clemmensen's Reduction ii) Wolf – Kishner Reduction

15. Explain the following Reactions with Mechanism.

i) Decarboxylation by Schmidt Reaction ii) Curtius Rearrangement

(OR)

16. Discuss any two synthetic applications of Aceto Acetic Ester.

17. Describe determination of ring size of Glucose.

(OR)

18. i) Explain about Ruff Degradation ii) Write a note on Mutarotation.

Room No: _____ Regd No: _____

59

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Che)	Max Marks	: 60
Subject	: Chemistry	Pass Mark	: 24
Title of Paper	: Physical Chemistry-I (Solutions and ElectroChemistry)	Duration	: 3 Hrs
Paper Code	: R23CHE303	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 31-10-2025

SECTION-A

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

1. Write the effect of impurity on consulate temperature.

2. Write a short note on Rast method.

3. Explain Van't Hoff factor.

4. Write the differences between thermal and photochemical processes.

5. What is fluorescence? Give one example.

6. Explain Debye-Huckel- Onsagar's equation for strong electrolytes.

7. Write a short note on Kohlrausch's law.

8. Write any four applications of EMF measurements.

SECTION-B

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

9. What are Azeotropes? Explain HCl-H_2O system and ethanol-water system.

(OR)

10. Define Nernst Distribution law and write its applications.

11. What is elevation in boiling point? Describe any one method for determining Elevation in boiling point.

(OR)

12. Explain the determination of Osmotic Pressure by using Berkeley-Hartley method.

13. Explain the Grothus-Draper's law and Stark-Einstein's law.

(OR)

14. What is Quantum Yield? Explain the mechanism of Hydrogen and Bromine reaction.

15. What is transport number? Explain Hittorf's method for determination of transport number.

(OR)

16. Explain about Conductometric titrations.

17. Explain the following.

I) Standard hydrogen electrode II) Calomel electrode

(OR)

18. What are Fuel cells? Explain the construction and working of H_2- O_2 fuel cell.

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

60

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II DEGREE(All Groups)	Max Marks	: 50
Subject	: Chemistry	Pass Mark	: 20
Title of Paper	: **Health & Hygiene**	Duration	: 2 Hrs
Paper Code	: R23MDP301	Time	: 2pm - 4 pm
W.E.F	: 2024-25	Date	: 22-10-2025

SECTION-A

I. Answer any FOUR of the following Questions **4X5=20M**

1. Discuss the functions and sources of water.

2. Name two food sources each for calcium, potassium and sodium.

3. Explain the main objectives of India New born Action Plan (INAP).

4. Explain the functions of Indian Council of Medical Research (ICMR)

5. Define personal hygiene and explain its importance.

6. Write a short note on functions of Covid-19APApp

SECTION-B

II. Answer Any THREE the following Questions **3X10=30M**

7. Discuss the importance of good nutrition and the consequences of malnutrition.

8. Explain the functions, dietary food sources and deficiency of vitamins.

9. Evaluate the role of government and public guidelines in the containment, control, and prevention of epidemics and pandemics.

10. Explain about the functions of National Urban Health Mission (NUHM) framework and Indian Dietetics Association (IDA).

11. Explain about the public awareness programs through digital media.

Room No: _____ Regd No: _____

(61)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons (Chemistry)	Max Marks	: 60
Subject	: Chemistry	Pass Mark	: 24
Title of Paper	: **Inorganic And Physical Chemistry**	Duration	: 3 Hrs
Paper Code	: R23CHE304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 03-11-2025

SECTION-A

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

1. Discuss Structural isomerism in coordination compounds.

2. Discuss geometrical isomerism in complexes with coordination number 4.

3. What are inert and labile complexes.

4. What is chelate effect.

5. Molecular orbital diagram of CO.

6. State and explain first law of thermodynamics.

7. Define Hear, work & Internal energy.

8. State and explain second law of thermodynamics.

SECTION-B

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

9. Discuss the VBT and write its applications.

(OR)

10. Discuss crystal field splitting in tetrahedral complexes.

11. Explain Trans effect and write its applications.

(OR)

12. Write a note on factors effecting stability of metal complexes.

13. Discuss the general methods of preparation of Mono and Binuclear carbonyl of 3dseries.

(OR)

14. What is synergic effect? Write the use of IR data to explain the extent of back bonding.

15. Calculate the work done in a reversible isothermal process.

(OR)

16. Derive Kirchoff's equation.

17. Calculate the efficiency of Carnot cycle.

(OR)

18. Derive Gibbs Helmholtz equation.

Room No: _____ Regd No_____

(62)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Che,CS,MB,BT)	Max Marks	: 60
Subject	: Chemistry	Pass Mark	: 40
Title of Paper	: **Fundamentals in Organic Chemistry**	Duration	: 3Hrs
Paper Code	: R23CHE301/R23MCHE301	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 11/11/2025.

SECTION-A

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

1. What are electrophile and nucleophile give two examples

2. Discuss the basicity of amines.

3. Write a note on conformational analysis of butane.

4. Write a short note on Corey House synthesis method.

5. Discuss the acidity of 1-alkynes.

6. Write about Hoffmann's elimination

7. Explain the orientation effect of nitro group.

8. Explain about halogenation of benzene

SECTION-B

II. Answer ALL of the following questions: **5X8=40M**

9. What is inductive effect? Discuss any two applications with suitable examples.

(OR)

10. Define hyper conjugation and explain the stability of carbonium ions by using hyper conjugation effect.

11. Explain the stability of cycloalkanes by Baeyer Strain Theory.

(OR)

12. Explain the different conformations of propane. Draw their Newman projections and discuss their relative stability?

13. Write any four general methods of preparation of alkenes.

(OR)

14. Explain Markownikoff addition of HX in alkenes with suitable examples.

15. Discuss the structure of Benzene.

(OR)

16. Discuss the following electrophilic substitution reactions.
(i) Friedel Craft's Alkylation (ii) Friedel Crift's Acylation

17. What is Huckel's rule and explain the aromaticity of non benzenoid aromatic compounds.

(OR)

18. Discuss the orientation effect of amino group and methyl group.

Room No: _____ Regd No _____

(63)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BSc.Hon[Physics,Computer Science]	Max Marks	: 60
Subject	: Physics	Pass Mark	: 24
Title of Paper	: **Optics**	Duration	: 3Hrs
Paper Code	: R23PHY301/R23MPHY301	Time	: 2pm to 5pm
W.E.F	: 2024-2025	Date	: 11/11/2025.

SECTION-A

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

1. What is Astigmatism?
2. Explain the colours of thin films.
3. Distinguish between Fraunhofer diffraction and Fresnel diffraction.
4. Write a short note on quarter wave plate.
5. Give the applications of Lasers.
6. IN a Newton's rings experiment, the diameter of 5th dark ring was 0.3cm and if the radius of curvature of the plano convex lens is 100cm, find the wavelength of the light used.
7. Find the radius of the first three transparent zones of a zone plate whose first focal length 1m for wavelength of 5893Å.
8. Calculate the specific rotation if the plane of polarization is turned though 30^0 after traversing 25cm length of 20% sugar solution.

SECTION-B

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

9. Explain Chromatic aberration? How the chromatic aberration eliminated when (i) two thin lenses placed in contact and (ii) two this lenses separated by a distance coaxially.

(OR)

10. Explain spherical aberration. How the spherical aberration eliminated when two lenses separated by some distance.
11. Give the procedure for determining the wavelength of the given source of light using Fresnel's Biprism.

(OR)

12. How do you determine the wavelength of the monochromatic light using Newton's rings?
13. Describe the Fraunhofer diffraction due to single slit and deduce the positions of maxima and minima.

(OR)

14. What is zone plate? Explain the construction and working of zone plate.
15. Describe the construction, working and used of Nicol Prism.

(OR)

16. Define Specific rotation. How is it determined by using Laurent's Half-shade Ploarimeter.
17. Explain how hologram is prepared and viewed. Give the applications of holography.

(OR)

18. Explain the construction and working of He-Ne laser.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [Physics & Comp]	Max Marks	: 60
Subject	: Physics	Pass Mark	: 24
Title of Paper	: **Heat And Thermodynamics**	Duration	: 3 Hrs
Paper Code	: R23PHY302/R23MPHY302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 13-11-2025

(64)

SECTION-A

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

1. Explain mean free path.

2. Show that the entropy is remains constant in reversible process.

3. Write the differences between reversible and irreversible process.

4. What are Thermodynamic Potentials?

5. Explain the methods for producing very low temperatures.

6. State and explain Wien's displacement law.

7. Calculate the efficiency of a reversible heat engine working between 72^0C and 187^0C.

8. Find the Wavelength at which maximum energy is radiated by a black body having a temperature of 327^0C. The Wien's constant is $2.897X10^{-3}$ mk.

SECTION-B

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

9. Derive an expression for Maxwell's Law of distribution of molecular speeds in a gas.

(OR)

10. On the basis of Kinetic theory of gases derive an expression for thermal conductivity of a gas and discuss the conclusion.

11. State and prove Carnot's theorem.

(OR)

12. Describe the Carnot's ideal heat engine and its working. Derive an expression for its efficiency.

13. Explain Thermodynamic Potentials. Derive Maxwell's Thermodynamic equations from Thermodynamic Potentials.

(OR)

14. What is Joule-Kelven effect? Explain the Joule-Kelvin effect from Maxwell's thermodynamic relations.

15. What is Joule Kelvin effect? Describe porous plug experiment and indicate the results.

(OR)

16. What is adiabatic demagnetization? How is this principle used in producing low temperatures?

17. Derive an expression for Plank's Radiation Law.

(OR)

18. Define Solar constant. Describe how solar constant is determined using Angstrom's pyro Heliometers.

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

(65)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [Data Science]	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Inferential Statistics**	Duration	: 3 Hrs
Paper Code	: R23DSSTAT301	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 31-10-2025

SECTION-A

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

1. Explain the method of moments.

2. State Neyman's Factorization theorem..

3. Define Null and alternative hypothesis.

4. Define one tailed and two tailed test

5. Test of significance for single proportion.

6. What are the conditions for validity of chi-square test?

7. Distinguish between parametric and non parametric.

8. What are the assumptions on non-parametric test?

SECTION-B

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

9. Explains the method of maximum likelihood estimation and what are its properties.

(OR)

10. A random sample of size 5 is drawn from a normal population with mean μ the following are estimators of μ

i) $t_1 = \frac{X_1+X_2+X_3+X_4+X_5}{5}$ ii) $t_2 = \frac{X_1+X_2}{5} + X_3$ iii) $t_3 = \frac{2X_1+X_2+\lambda X_3}{3}$

a) find λ such that t_3 is an unbiased estimator of μ b)Are t_1, t_2 are unbiased.

c) find best estimator among t_1, t_2, t_3

11. Obtain best critical region for testing null hypothesis and alternative hypothesis for the binomial population.

(OR)

12. State and prove the Neyman's-pearsons Lemma.

13. Explain the test procedure for large sample of two population standard deviations.

(OR)

14. Random samples of 400 men and 600 women were asked whether they would like to have a flyover near their residence.200 men and 325 women were in favour of the proposal. Test the hypothesis that proportions of men and women in favour of the proposal are same or not at 5% level of significance.

[P.T.O]

(66)

15. Explain the condition for the validity of χ^2 test also explain the χ^2 test for independence of attributes.

(OR)

16. A random sample of 10 boys had the following IQ 's: 70,120,110,101,88,83,95,98,107,100 Do these data support the assumption of population mean of IQ of 100

17. Explain the median test procedure.

(OR)

18. The number of defective items produced from two machines A and B are given below test whether these sample drawn from the same population using median test.

Number of defective from machine A:26,27,31,26,19,21,20,25,30

Number of defective from machine B:23,28,26,24,21,22,19

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BBA.Hons(BA)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Fundamentals Of Business Analytics**	Duration	: 3Hrs
Paper Code	: R23BBASTAT301	Time	: 2pm-5pm
W.E.F	: 2024-2025	Date	: 31-10-2025

SECTION-A

I. Answer ALL of the following Questions **5X12=60M**

1. What is business analytics, and why is it important?

(OR)

2. What is data mining? How it is useful for the growth of modern business?

3. Define Descriptive analytics & write its applications?

(OR)

4. What are the commonly used tools and software in business analytics?

5. The sales and profits of a company are given below. Obtain regression lines. Estimate profit if the sales of the product is RS. 72 Lakhs?

Sales	75	70	55	65	60	69	80	65	59	61
Profit	59	65	45	52	60	62	70	55	45	49

(OR)

6. Write a brief note on Factor Analysis?

7. Define Prescriptive analysis and Write its applications?

(OR)

8. How do we translate data insights into actionable business strategies?

9. How can we forecast future workforce needs based on business growth and turnover rates?

(OR)

10. How can we track and improve our supply chain efficiency and effectiveness?

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons (Statistics)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Theoretical Continuous Distributions**	Duration	: 3 Hrs
Paper Code	: R23STAT302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 13-11-2025

SECTION-A

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

1. Define rectangular distribution.

2. What is kurtosis of Exponential distribution?

3. State and prove additive property of gamma distribution.

4. Define beta distribution of second kind.

5. Define standard Normal distribution.

6. Write the importance of Normal distribution.

7. Define Chi-square distribution.

8. Define Fisher's t-distribution.

SECTION-B

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

9. Derive mean deviation about mean of the rectangular distribution.

(OR)

10. Obtain C.F. of rectangular distribution.

11. Obtain M.G.F of Exponential distribution.

(OR)

12. State and prove lacks memory property of exponential distribution.

13. Obtain mean and variance of gamma distribution.

(OR)

14. Obtain harmonic mean of beta distribution of second kind.

15. Define Normal distribution. Obtain its mean & Variance.

(OR)

16. Derive M.G.F of normal distribution and hence obtain skewness and kurtosis.

17. Define F- distribution. Write its properties and applications.

(OR)

18. Derive interrelationship between F and Chi-square.

(69)

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BSc.Hons(AI)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Inferential Statistics**	Duration	: 3Hrs
Paper Code	: R23AISTAT301	Time	: 2 pm-5pm
W.E.F	: 2024-2025	Date	: 31-10-2025

SECTION-A

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

1. State and prove invariance properties of consistency.

2. Define Population, Sample Parameter, Statistics.

3. Explain the Critical region, Most powerful test and level of significance.

4. Define two Types of Errors.

5. Explain the t-test for single mean.

6. Define Chi-square distribution. Write the properties of Chi-square test.

7. Define ANOVA and write the assumptions of ANOVA.

8. Distinguish between parametric and non- parametric test.

SECTION-B

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

9. Write the Characteristics of good estimator.

(OR)

10. Explain the method of maximum likelihood estimation and write its properties.

11. Explain the large sample for testing the significance of the difference between the sample means.

(OR)

12. Random sample of 400 men and 600 women were asked whether they would like to have a flyover near their residence. 200 men and 325 women were in favor of the proposal are same or not at 5% level of significance.

13. Two independent random samples of sizes 8 and 7 contained the following results

Sample I	19	17	15	21	16	18	18	14
Sample II	15	14	15	19	15	18	16	

Test is there any significant difference between Two sample means.

(OR)

14. Explain the conditions for the validity of χ^2 test and also Explain the χ^2- test for independence of attributes.

[P.T.O]

15. Explain ANOVA one way classification.

(OR)

16. There are four doctors, if they wish to test the 5 medicines, they applied these 5 treatments i.e., medicines on four patients each and the reading were given below:

Doctors	Observations of Treatments(Medicines)				
	A	B	C	D	E
1	12	16	18	21	24
2	16	25	20	23	28
3	14	20	23	16	20
4	12	24	23	25	36

Test the significance between the medicines and doctors at 1% level of significance.

17. Explain the Run test for two samples.

(OR)

18. The numbers of defective items produced from two machines A and B are given below. Test whether these sample are dawn from the same population using median test.

Number of defectives from machine A:	26	27	31	26	19	21	20	25	30
Number of defectives from machine B:	23	28	26	24	21	22	19		

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (Stat)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: Statistical Methods	Duration	: 3 Hrs
Paper Code	: R23STAT303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 31-10-2025

SECTION-A

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

1. Define principle of least square.

2. Write the properties of correlation coefficient.

3. Explain scatter diagram.

4. Define multiple correlation coefficient and its properties.

5. Define correlation ratio.

6. Define regression and its properties.

7. Define class, ultimate class frequencies, order of class frequencies.

8. Define mean square contingency.

SECTION-B

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

9. Fit a power curve by the least square principle.

(OR)

10. Fit an exponential curve of the form $y=ae^{bx}$ to the following data.

X	1	2	3	4	5	6
Y	1.6	4.5	13.8	40.2	125	300

11. Derive the spearman's rank correlation coefficient.

(OR)

12. Calculate correlation coefficient to the following data.

X	10	15	12	17	13	16	24	14	22	20
Y	30	42	45	46	33	34	40	35	39	38

13. Explain partial and multiple correlation coefficient and its properties.

(OR)

14. In a trivariate distribution it is found that $r_{12}=0.7$, $r_{13}=0.61$, $r_{23}=0.4$ and Find the values of $r_{23.1}$, $r_{13.2}$ and $r_{12.3}$

15. Derive the regression line X on Y.

(OR)

16. Derive the Angle between regression lines.

17. For 'n' attributes $A_1, A_2, A_3, \ldots\ldots A_n$ show that the class frequency $(A_1, A_2, A_3, \ldots\ldots A_n) \geq (A_1)+(A_2)+\ldots\ldots+(A_n)-(n-1)N$.

(OR)

18. Derive the relationship between Q and Y.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons [DS]	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Distribution Theory**	Duration	: 3 Hrs
Paper Code	: R23DSMSTAT302	Time	: 2 pm - 5 pm
W.E.F	: 2024-25	Date	: 03-11-2025

SECTION-A

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

1. Define Bernoulli distribution.

2. Write the properties of binomial distribution.

3. State and prove additive property of Poisson distribution.

4. Write the applications of Poisson distribution.

5. Define gamma distribution.

6. What is the skewness of Exponential distribution.

7. Write the importance of Normal distribution.

8. Define F distribution.

SECTION-B

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

9. Derive M.G.F of Binomial distribution and deduce the mean and variance of Binomial distribution.

(OR)

10. Five coins are tossed simultaneously. Find the probability of getting
i) Three heads ii) At least one head iii) at most two heads.

11. Show that Binomial distribution tends to Poisson distribution.

(OR)

12. In a Poisson Distribution is such that $\frac{3}{2}$ P(X = 1) = P(X = 3). Find
(i) P(X > 1) (ii) P(2< X < 5).

13. Obtain mean and variance of gamma distribution.

(OR)

14. State and Prove lacks memory property of Exponential distribution.

15. Define Normal distribution. Obtain it's mean & Variance.

(OR)

16. Show that mean = median = mode of normal distribution.

17. Define t- distribution. Write its properties and applications

(OR)

18. Define F distribution. Write its properties and applications.

(73)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hon(Statistics)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Inferential Statistics**	Duration	: 3 Hrs
Paper Code	: R23STAT304	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 03-11-2025

SECTION-A

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

1. Define Consistence and efficiency with their examples.

2. State and prove invariance properties of consistence.

3. Explain the types of Errors.

4. Describe the following -Null Hypothesis, Alternative Hypothesis and power of the test

5. Explain the test procedure for single proportion.

6. Explain the paired t-test for the difference Means.

7. Define Non parametric test, give its merits and demerits of non-parametric test.

8. Explain Mann Whitney U-test Procedure.

SECTION-B

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

9. Explain the Method of Maximum likely hood estimation and what are its properties.

(OR)

10. Write the characteristics of good estimator.

11. State and prove Neyman Pearson lemma.

(OR)

12. Obtain best critical region for testing H_0: $p=p_0$ against H_1:$p=p_1$ in a binomial population.

13. Explain the test procedure for two Proportions.

(OR)

14. The S.D of two samples of sizes 1000 and 500 are 2.6 and 2.7 respectively. Assuming the sample are independent , find whether the two samples have come from the population with same S.D.

15. Explain the F-test for equality of Population Variances.

(OR)

16. Two Treatments have applied on 500 agricultural plots and data given below. Test whether treatments are independent.

	Treatment -1	
Treatment-II	208	92
	32	168

17. Explain Sign test for two samples.

(OR)

18. Test the randomness to the following data.
109,124,173,167,148,132,168,165,118,112,114,164,180,123,180,152.

(24)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Hons (Statistics)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Theoretical Discrete Distributions**	Duration	: 3 Hrs
Paper Code	: R23STAT301	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 11/11/2025.

SECTION-A

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

1. Define uniform distribution.

2. Define Bernoulli distribution.

3. Write the applications of Poisson distribution.

4. A book contains 43 mistakes in 585 pages. Find the probability that there will be no mistake in randomly selected 10 pages of the book.

5. Find M.G.F of Negative binomial distribution.

6. Define Geometric distribution.

7. Write the properties of Geometric distribution.

8. Define Hyper geometric distribution.

SECTION-B

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

9. Define Binomial distribution and derive the mean and variance of Binomial distribution.

(OR)

10. Six dice are thrown 729 times. How many times do you expect at least three dice show 5 or 6.

11. Define Poisson distribution and derive the mean and variance of Poisson distribution.

(OR)

12. In a Poisson Distribution is such that $\frac{3}{2}P(X = 1) = P(X = 3)$. Find

i) $P(X > 1)$ ii) $P(2 < X < 5)$.

13. Define the Negative Binomial distribution. Derive the mean and variance of Binomial distribution.

(OR)

14. Show that Negative Binomial distribution tends to Poisson distribution.

15. Find the M.G.F of Geometric distribution and hence find the mean and variance.

(OR)

16. State and prove memory less property of Geometric distribution.

17. Define Hyper geometric distribution. Find mean and variance.

(OR)

18. Show that Hyper geometric distribution tends to Binomial distribution.

(75)

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II.B.Com(Computers)
Subject : R23WS301
Title of Paper : **Women Soceity and Culture**
Paper Code : R23WS301
W.E.F : 2024-2025

Max Marks : 60
Pass Mark : 24
Duration : 3Hrs
Time : 2pm-5pm
Date : 07-11-2025

SECTION-A

I. Answer ALL of the following Questions **5X12=60M**

1. Define marriage. Explain the different forms of marriages.

(OR)

2. Explain the differential status of women in India.

3. Explain the causes and challenges faced by women in Devadasi system.

(OR)

4. Explain the various women and communal riots.

5. Discuss the role of women in nationalist movement.

(OR)

6. Explain the alternative views of biblical women.

7. Explain the role of arts in the progress of women.

(OR)

8. Discuss the portrayal of women in media.

9. Discuss briefly about the key autobiographical works of Kasturba Gandhi.

(OR)

10. Key autobiographical works of Kamala Das.

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BA Hon(Political Science)	Max Marks	: 60
Subject	: SOCIOLOGY	Pass Mark	: 24
Title of Paper	: **Perspectives on Indian Society**	Duration	: 3 Hrs
Paper Code	: R23MSOC301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 05-11-2025

SECTION-A

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

1. Purusharthas.

2. Functions of Joint Family.

3. Cultural view about Caste system.

4. Structural view about Caste system.

5. Describe the Leadership.

6. Write a short notes on Polity.

7. Characteristic of Orthogenetic Changes.

8. Great Tradition.

SECTION-B

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

9. Explain the cognitive Historical approach of Sociology.

10. Discuss about the Hindu view of Life.

11. Explain the changing trends in Indian Family.

12. Discuss about the different types of Marriage.

13. Explain the Features and functions of Caste system.

14. Explain the Theories of origin of caste system.

15. Discuss about the religion and Ritual systems.

16. Explain the Socio-Religious Movements.

17. Explain the Composition of Indian Society.

18. "Unity and Diversity"-Explain.

77

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree (All Groups)	Max Marks	: 75
Subject	: Telugu	Pass Mark	: 30
Title of Paper	: General Telugu	Duration	: 3 Hrs
Paper Code	: R20TEL301	Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 31-10-2025

పార్టు – ఎ

1. ఈ క్రింది వానిలో ఏవైనా ఐదింటికి సంక్షిప్త సమాధానాలు వ్రాయండి 5 X 5 = 25 M

   1. భాష లక్షణాలు
   2. వాక్యం లక్షణాలు
   3. టెలివిజన్ రచన
   4. అనువాద అవశ్యకత
   5. వార్త రచనలోని పద్ధతులను చెప్పండి.
   6. సంశ్లిష్ట వాక్యం
   7. సంపాదకీయాలు
   8. To many, Indian thought, Indian manners Indian customs, Indian philosophy, Indian Literature are repulsive at the first sight; but let them persevere, let them read, let them become familiar with the great principles underlying these ideas, and it is ninety-nine to one that the charm will come over them, and fascination will be the result. Slow and silent, as the gentle dew that falls in the morning, unseen and unheard yet producing, a most tremendous result, has been the work of the calm, patient, all-suffering spiritual race upon the world of thought.

పార్టు – బి

2. ఈ క్రింది వానిలో అన్ని ప్రశ్నలకు సమాధానాలు వ్రాయండి 5 X 10 = 50 M

   9. భాషను నిర్వచించి లక్షణాలు రాసి ప్రామాణిక భాషను పరిచయం చేయండి.

      (లేదా)

      వాక్య భేదాలను సమగ్రంగా చర్చించండి.

   10 ఉత్తమ కవితా లక్షణాలను విశ్లేషించండి.

      (లేదా)

      కథాంశాలను గూర్చి సంగ్రహంగా తెల్పండి.

   11. అనువాద సమస్యలు వాటి పరిష్కారాలను గూర్చి తెల్పండి.

      (లేదా)

      అనువాదంలో సాంస్కృతిక సమస్యలను గురించి చర్చించండి.

[P.T.O]

12. వార్తను నిర్వచించి వార్త లక్షణాలను తెల్పండి.

(లేదా)

పత్రికా రచనను గురించి విశ్లేషణాత్మక వ్యాసం వ్రాయండి.

13. ప్రసార మాధ్యమాలు విస్తృతి - ప్రయోజనాలను సమీకరించండి.

(లేదా)

యాంకరింగ్ నిర్వాహణ తీరు తెన్నులను వివరించండి.

Room No: _____ Regd No _____ (79)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree(All Groups)	Max Marks	: 60
Subject	: Telugu	Pass Mark	: 24
Title of Paper	: **General Telugu**	Duration	: 3 Hrs
Paper Code	: R20TEL301A	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 31-10-2025

విభాగము - అ

I. ఈ క్రింది ప్రశ్నలలో **ఐదింటికి** సంక్షిప్త సమాధానములు వ్రాయండి. **5X4=20M**

1. భాషా లక్షణాలు.

2. భాషా ప్రయోజనాలు.

3. ప్రతిభ విశిష్టత తెల్పండి.

4. అనువాద ఆవశ్యకత.

5. సంపాద కీయాలు.

6. రేడియో రచన.

7. బ్లాగ్ ను వివరించండి.

8. ఈ క్రింది అంశాన్ని తెలుగులోనికి అనువదించండి వ్రాయండి.

Peace means tolerance. The Natural calamities, manmade problems, the financial problems lead to difficulties for the mankind. World peace means that every human being under the sky live having adequate food and clothing. Natural calamities bring difficulties to the people. People face problems due to floods, earth quakes, droughts and cyclones. Scientists are working out how to minimize their sufferings.

విభాగము - ఆ

II. ఈ క్రింది **అన్ని** ప్రశ్నలకు సమాధానాలు ఇవ్వండి. **5X8=40M**

9. భాషా నిర్మాణంలో వర్ణం – పదం – వాక్యాల ప్రాధాన్యత వివరించండి.

(లేదా)

10. వాక్యాన్ని నిర్వచించి, వాక్య లక్షణాలను విశదీకరించండి.

11. ఉత్తమ కవితా లక్షణాలను వ్రాయండి.

(లేదా)

12. ఉత్తమ వ్యాస లక్షణాలను విశ్లేషించండి.

13. అనువాద లక్షణాలను పేర్కొని, అనువాద పద్ధతులను వివరించండి.

(లేదా)

14. అనువాద సమస్యలను పేర్కొని, వాటికి పరిష్కార మార్గాలను సూచించండి.

[P.T.O]

15. ముద్రణా మాధ్యమంను పరిచయం చేసి, దాని పరిధి, వికాసాలను తెల్పండి.

(లేదా)

16. వార్తను నిర్వచించి, వార్తా లక్షణాలను పరిచయం చేయండి.

17. ప్రసార మాధ్యమాల విస్తృతి, ప్రయోజనాలను విశదీకరించండి.

(లేదా)

18. యాంకరింగ్ నిర్వహణ తీరు తెన్నులను వివరించండి.

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree(All Groups)	Max Marks	: 60
Subject	: English	Pass Mark	: 24
Title of Paper	: **A Course in Conversation Skills**	Duration	: 3Hrs
Paper Code	: R20ENG301A	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 13-11-2025

SECTION-A

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

1. Which freedom fighter used the term Tryst with Destiny?

2. What are the four ways of greeting?

3. How did A.P.J.Abdul Kalam deal with his failures?

4. What are the questions to ask someone about their career?

5. Give directions to your friend a good restaurant near to your house.

6. Why does Steve Jobs say we got to find what we love?

7. Describe a serene beach at sunrise in about 75 words.

8. What are the techniques used in interview?

SECTION-B

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

9. Who according to the Author is 'The greatest man of our generation'? What is his ambition and desire in Tryst with Destiny?

(OR)

10. How do you introduce your teacher to your father?

11. What was the purpose of Obama's 'Yes, We can'?

(OR)

12. How to use requests in a sentence? Give 5 examples of request sentences

13. What are the challenges faced by Nelson Mandela?

(OR)

14. Agree or disagree questions about your life.

15. Why is JRD Tata known as the father of Indian aviation?

(OR)

16. Conversation between Two friends who meet in a restaurant.

17. Write a debate speech for or against the topic 'Social Media' in about 150 words.

(OR)

18. What is the main purpose of Role Play?

Room No: _____ Regd No _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc(MSCS/DS)	Max Marks	: 75
Subject	: Statistics	Pass Mark	: 30
Title of Paper	: **Statistical Inference**	Duration	: 3 Hrs
Paper Code	: R20STAT301/R20DSSTAT301	Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 05 - 11 - 2025

SECTION-A

I. Answer any FIVE of the following Questions. **5X5=25M**

1. Define Parameter and Statistic.

2. Define Consistency and Efficiency with their examples.

3. What is the difference between Point and Internal Estimation?

4. Describe the following concepts

(i) Null Hypothesis (ii) Alternative hypothesis (iii) Power of test.

5. Define Type – I and Type – II errors.

6. Explain the test for Single Standard Deviation.

7. Distinguish between Parametric and Non – Parametric Tests.

8. Explain the Mann Whitney U – test procedure.

SECTION-B

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

9. Describe the relation between F and χ^2 distribution.

(OR)

10. Define F – distribution and derive its mean and variance.

11. Explain the criteria of a good estimator.

(OR)

12. State and prove Cramer – Rao Inequality.

13. State and prove Neyman – Pearson Lemma.

(OR)

14. If $x \geq 1$ is the critical region for testing hypothesis $H_0 : \theta = 2$ against the alternative hypothesis $H_1 : \theta = 1$, on the basis of the single observation from the population, $f(x,\theta) = \theta . e^{-\theta x}, 0 \leq x < \infty$.

Obtain the values of type I and type II errors.

15. Explain the t – test for equality of two population means.

(OR)

16. Explain the large sample for testing the significance of difference of proportions.

17. Explain the Median Test.

(OR)

18. Explain the One Sample Sign Test.

Room No: _____ Regd No _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc(MSCS/DS)	Max Marks	: 60
Subject	: Statistics	Pass Mark	: 24
Title of Paper	: **Statistical Inference**	Duration	: 3 Hrs
Paper Code	: R20STAT301A/R20DSSTAT301A	Time	: 2pm - 5pm
W.E.F	: 2023-24	Date	: 05-11-2025

SECTION-A

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

1. Define and explain the concept of Standard Error.

2. Define Consistency and Efficiency with their examples.

3. Explain the method of moments.

4. Define and explain Critical Region.

5. Explain the procedure for testing of hypothesis.

6. Define One tailed & Two – tailed tests.

7. Define Non – Parametric Tests and give its merits.

8. Explain One Sample Runs Test.

SECTION-B

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

9. Define t – distribution and derive its mean and variance.

(OR)

10. Describe the relation between F and χ^2 distribution.

11. State and prove Cramer – Rao Inequality.

(OR)

12. Explain the method of maximum likelihood estimation.

13. If $x \geq 1$is the critical region for testing hypothesis $H_0 : \theta = 2$ against the alternative hypothesis $H_1 : \theta = 1$, on the basis of the single observation from the population, $f(x,\theta) = \theta . e^{-\theta x}, 0 \leq x < \infty$.

Obtain the values of type I and type II errors.

(OR)

14. State and prove Neyman – Pearson Lemma.

15. Explain the F – test for equality of two population variances.

(OR)

16. Explain the large sample for testing the significance of difference of means.

17. Explain the One Sample Sign Test.

(OR)

18. Explain the procedure of Median Test.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

(84)

Class	: II BCA	Max Marks	: 60
Subject	: Computer Applications	Pass Mark	: 24
Title of Paper	: **Object Oriented Programming through Java**	Duration	: 3Hrs
Paper Code	: R20BCA302A	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 05-11-2025

SECTION-A

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

1. Explain Java Development Kit.
2. Explain different String functions in Java.
3. Discuss about Thread Priorities.
4. Explain Serialization.
5. What is Servlet? How to run Servlets?
6. Define Object Oriented Programming.
7. Define Array? Explain one Dimensional Array.
8. Explain Checked and Unchecked Exceptions.

SECTION-B

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

9. Explain about Features of JAVA.

(OR)

10. Briefly explain the structure of JAVA.
11. Explain different data types available in java.

(OR)

12. Define Operator? Explain different Operators available in Java.
13. Define Thread? Explain the Life Cycle of Thread.

(OR)

14. What is Exception? How can we define user defined exception with an example?
15. What is an applet? Explain the life Cycle of an applet.

(OR)

16. Explain JDBC Architecture.
17. Explain RMI Architecture.

(OR)

18. Explain Networking Classes in JDK.

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA	Max Marks: 60	
Subject	: Computer Applications	Pass Mark : 24	
Title of Paper	: **Operating Systems**	Duration	: 3 Hrs
Paper Code	: R20BCA303A	Time	: 2 pm - 5 pm
W.E.F	: 2023-24	Date	: 07-11-2025

SECTION-A

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

1. Describe the concept of Storage Management.
2. Explain about Inter Process Communication.
3. Explain about CPU Scheduler.
4. Explain about Semaphores.
5. Briefly explain about Dead lock necessary condition.
6. Write about logical versus physical address space
7. Explain about swapping.
8. What are the advantages and disadvantages in File Allocation Table?

SECTION-B

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

9. Explain about different Types of an Operating Systems

(OR)

10. What is System call? Explain different types of system calls in Operating System.
11. Explain about FCFS Scheduling.

(OR)

12. Explain about Multiple levels Queues Scheduling.
13. Explain about the Dining-philosophers problem.

(OR)

14. Explain methods for handling deadlocks.
15. Explain about segmentation in hardware.

(OR)

16. Explain about concept of FIFO page replacement.
17. Explain about File Access Methods.

(OR)

18. Explain the features of UNIX operating system.

Room No: _____ Regd No _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc(MPCS/MSCS/MECS&MCCS)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Database Management System**	Duration	: 3Hrs
Paper Code	: R20CSC301A	Time	: 2pm-5pm
W.E.F	: 2023-24	Date	: 07-11-2025

(86)

SECTION-A

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

1. Describe about Database Management System.

2. Explain about IS A relationship and Attribute Inheritance.

3. Write about the advantages of ER model.

4. What is Key? Explain about various types of Keys.

5. Explain Domain Relational Calculus.

6. Describe about TCL commands.

7. Write about Aggregate Functions in SQL.

8. Explain about basic structure of PL/SQL program.

SECTION-B

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

9. Describe the components of Database Management System.

(OR)

10. What is Data Model? Explain about different types of Data models.

11. Define Attribute. Explain about classification of attribute

(OR)

12. What is EER model? Explain basic concepts of EER Model.

13. Explain about E-F CODD"s rules.

(OR)

14. Write about the advantages and disadvantages of relational algebra.

15. Describe about DML Commands.

(OR)

16. Write about SQL Join operations with examples.

17. Discuss about Looping statements in PL/SQL.

(OR)

18. What is a Trigger? Describe about Triggers in PL/SQL.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com(Computers)	Max Marks	: 60
Subject	: Computer Applications	Pass Mark	: 24
Title of Paper	: **Programming with C & C++**	Duration	: 3 Hrs
Paper Code	: R20COMC303A	Time	: 2pm - 5pm
W.E.F	: 2023-24	Date	: 07-11-2025

SECTION-A

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

1. Explain about different Data Types in C language.

2. What is recursion? Explain with example.

3. What is function? Write procedure to create user defined function?

4. What are the differences between C and C++?

5. Briefly explain the concept of Function over loading.

6. Define Destructor with example.

7. Explain different rules of Operator Overloading.

8. Explain different Access Specifies.

SECTION-B

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

9. Explain different operators available in C.

(OR)

10. Explain different looping statements.

11. Write different string functions with examples.

(OR)

12. What is an Array? Explain different types of arrays with examples.

13. Explain the concepts of OOPs.

(OR)

14. Explain the difference between normal function and static function with examples.

15. Define Constructor? Explain types of Constructors with examples.

(OR)

16. Explain briefly about operator overloading with example.

17. Explain different types Inheritance with examples.

(OR)

18. What is Hierarchical Inheritance? Explain with example program.

Room No: _____ Regd No _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com (Computers)	Max Marks	: 75
Subject	: Computer Applications	Pass Mark	: 30
Title of Paper	: **Programming with C & C++**	Duration	: 3 Hrs
Paper Code	: R20COMC303	Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 07-11-2025

68

SECTION-A

I. Answer any FIVE of the following Questions. **5X5=25M**

1. Explain Data types in 'C' language.

2. What is recursion? Explain with example.

3. What is function? Write procedure to user defend function.

4. Explain difference between C and C++.

5. Explain the concept of function over loading.

6. Define Destructor with examples.

7. Explain different rules of operator overloading.

8. Explain different access specifics.

SECTION-B

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

9. Explain different operators available in 'C'.

(OR)

10. Explain about different looping statements in 'C'.

11. Write different string functions with examples.

(OR)

12. Explain difference between call by value and call by reference with example.

13. Explain the concepts of OOPS.

(OR)

14. Explain the structure of C++.

15. Define constructor? Explain types of constructors with examples.

(OR)

16. Explain briefly about operator overloading with example.

17. What is hierarchical inheritance? Explain with example program.

(OR)

18. What are the advantages and disadvantages of inheritance.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc(WT&SD)	Max Marks	: 75
Subject	: Computer Science	Pass Mark	: 30
Title of Paper	: **Advanced Angular JS**	Duration	: 3 Hrs
Paper Code	: R20WSAAJ303	Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 10-11-2025

SECTION-A

I. Answer any FIVE of the following Questions. **5X5=25M**

1. Explain the Key features of Angular 2.

2. Explain about Angular 2 components.

3. Explain about styling angular 2 components.

4. Explain about class binding in Angular 2.

5. Explain about Attribute binding in Angular2.

6. Explain Event binding.

7. Explain about custom pipes in Angular2.

8. Explain about Angular 2 life cycle Hooks.

SECTION-B

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

9. Explain about Angular 2 architecture.

(OR)

10. Explain about Angular 2 modules.

11. Explain about angular 2 container components.

(OR)

12. Explain Angular component input properties and output properties.

13. Explain about style binding in Angular 2.

(OR)

14. Explain Two way data binding.

15. Explain about Angular 2 templates.

(OR)

16. Explain Angular interpolation.

17. Explain about routing in Angular2.

(OR)

18. Explain about Dependency injection in Angular2.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc(WT & SD)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Programming in Java**	Duration	: 3 Hrs
Paper Code	: R20WSPJ301A	Time	: 2pm to 5pm
W.E.F	: 2023-24	Date	: 07-11-2025

70

SECTION-A

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

1. Write the Features of Java.

2. Explain ?: Operator.

3. Explain about Wrapper Class.

4. Explain Java APT Package.

5. Define Interface and how to declare an Interface.

6. Explain different types of Errors.

7. Explain Thread Priority.

8. Write the procedure for creating and running Applet.

SECTION-B

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

9. Explain different types of Operators available in JAVA.

(OR)

10. Explain Structure of JAVA program with an example.

11. Explain looping statements with example.

(OR)

12. Define Inheritance. Explain Single, Multiple and Hybrid Inheritance with example.

13. Explain how to create and access a package.

(OR)

14. Define Interface. Explain interface with example.

15. What is Exception? Explain user defined exception.

(OR)

16. What is Thread? Explain Thread Life Cycle.

17. Explain Applet Life Cycle with neat diagram.

(OR)

18. Explain how to add Applet to HTML.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc(MECS/MCCS/MPCS/MSCS)	Max Marks	: 75
Subject	: Computer Science	Pass Mark	: 30
Title of Paper	: **Data Base Management System**	Duration	: 3 Hrs
Paper Code	: R20CSC301	Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 07-11-2025

SECTION-A

I. Answer any FIVE of the following Questions. **5X5=25M**

1. Explain about the classification of DBMS.
2. Write about building blocks of Entity relationship diagram.
3. Write about IS A relationship and attribute inheritance.
4. What is Key? Explain about various types of Keys.
5. Explain EF codd's rules.
6. Explain about sub-queries.
7. Explain about commit and Roll back commands.
8. Explain Triggers in PL / SQL

SECTION-B

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

9. Explain about the drawbacks of traditional file processing system.

(OR)

10. Explain about Database Architecture.
11. What is attribute? Explain about classification of attribute.

(OR)

12. What is ERR model? Explain basic concept of ERR Model.
13. What is normalization? Explain INF, 2NF and 3 NF with example,

(OR)

14. Explain about relational calculus in DBMS.
15. Explain about DML commands.

(OR)

16. Explain about joining database tables with examples.
17. Explain about conditional control statements in PL / SQL.

(OR)

18. Explain about procedures in PL / SQL.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc[IOT]	Max Marks	: 75
Subject	: Computer Science	Pass Mark	: 30
Title of Paper	: **Oops with Python**	Duration	: 3 Hrs
Paper Code	: R20IOTOP301	Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 07-11-2025

SECTION-A

I. Answer any FIVE of the following Questions. **5X5=25M**

1. Write about pass statement in Python.

2. What are the features of Python?

3. Write about lists in Python.

4. Write about tuple in Python.

5. Write about modules in Python.

6. Write about packages in Python.

7. Write about Exception handling in Python.

8. Write about Thread synchronization in Python.

SECTION-B

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

9. Explain about data types and operators in Python.

(OR)

10. Explain about string handling functions in Python.

11. Discuss briefly about methods of List with example program.

(OR)

12. Discuss briefly about methods of Dictionary's with example program.

13. Discuss briefly about types of functions in Python with example program.

(OR)

14. Discuss briefly about packages in python with example program.

15. Explain ABOUT Exception Handling in Python.

(OR)

16. Explain about User Defined Functions in Python.

17. Explain oops concepts in Python.

(OR)

18. Explain Inheritance in Python with suitable example.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA	Max Marks	: 75
Subject	: Computer Applications	Pass Mark	: 30
Title of Paper	: **Operating Systems**	Duration	: 3 Hrs
Paper Code	: R20BCA303	Time	: 2pm-5pm
W.E.F	: 2021-22	Date	: 07-11-2025

93

SECTION-A

I. Answer any FIVE of the following Questions. **5X5=25M**

1. Describe about Process Management.

2. Explain about CPU Scheduler.

3. Explain about Scheduling Criteria.

4. Explain about Synchronization.

5. What are the Deadlock characteristics.

6. Explain about Demand Paging.

7. Explain about swapping.

8. What are the advantages and disadvantages in File Allocation Table?

SECTION-B

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

9. What is Operating system? Explain functions of Operating System.

(OR)

10. Explain about different Types of an Operating Systems.

11. Explain about FCFS Scheduling.

(OR)

12. Explain about Priority Scheduling.

13. Explain about the Peterson's solution.

(OR)

14. Explain methods for handling deadlocks.

15. Explain about segmentation in hardware.

(OR)

16. Explain about contiguous memory allocation.

17. Explain about different file operations.

(OR)

18. Explain the features of UNIX operating system.

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BCA	Max Marks	: 60
Subject	: Commerce & Management	Pass Mark	: 24
Title of Paper	: **Accounting & Financial Management**	Duration	: 3Hrs
Paper Code	: R20BCA301A	Time	: 2pm- 5pm
W.E.F	: 2023-24	Date	: 03-11-2025

SECTION-A

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

1. Explain the Objectives of Accounting.

2. Explain the Double entry System.

3. Write the Components of Financial Statements.

4. Explain the Classification of accounting ratios.

5. Write about the Cost units and Cost Centre.

6. Explain the Merits of budgetary Control system.

7. Explain about Break Even Analysis.

8. What is Cash flow Statement?

SECTION -B

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

9. Journalize the following transactions in the books of Mr. Ramu.

Dec 1 Commenced business with cash Rs. 45, 000.

Dec 4 Purchased goods for cash Rs. 25,000.

Dec 5 Paid for wages Rs. 500

Dec 9 Goods sold for Cash Rs. 8,000.

Dec 11 Purchased goods from Lalitha Rs 7,000.

Dec 15 Goods sold to Sekhar Rs. 5,000.

Dec 23 Received cash from Sekhar Rs. 1,000.

Dec 31 Paid office Rent Rs.400.

Dec 31 Paid Salaries Rs.1, 000.

(OR)

10. What are the various Books of Accounts?

11. Explain the Steps for preparation of Balance sheet.

(OR)

12. Explain the Objectives for preparation of financial statements.

[P.T.O]

13. Discuss the advantages and disadvantages of ratio analysis.

(OR)

14. From the following balances calculate cash from operations.

Particulars	2023(Rs)	2024(Rs)
Stock	30,000	32,500
Debtors	15,000	35,000
Prepaid expenses	15,000	22,500
Creditors	43,000	47,500
Bills payable	5,000	8,000
Outstanding expenses	2,000	1,500
Provision for tax	10,000	15,000
Profit during the year	-	35,000

15. Explain the various Cost Concepts.

(OR)

16. From the following particulars prepare cost sheet showing different elements of a cost for the year ending 31.-12-2024.

Particulars	Rs.
Cost of material	1,60,000
Wages	2,40,000
Manufacturing expenses	1,00,000
Salaries	1,20,000
Rent, rates, taxes and insurances	20,000
Selling expense	60,000
General expenses	40,000
Sales	8,00,000

17. Explain the Classification of budgets.

(OR)

18. What are the differences between Shares and Debentures?

Room No: _____ Regd No_____

(96)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com[GEN/TP/COMP/LOG]	Max Marks	: 60
Subject	: Commerce and Management	Pass Mark	: 24
Title of Paper	: **Business Statistics**	Duration	: 3 Hrs
Paper Code	: R20COM302A	Time	: 2pm - 5pm
W.E.F	: 2023-24	Date	: 05-11-2025

SECTION-A

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

1. Write the importance of statistics.

2. What is arithmetic mean in statistics?

3. Write the benefits of range.

4. What is Skewness?

5. Write a short note on Probable Error.

6. What is mode in statistics?

7. What do you mean by standard deviation?

8. Write about the mesokurtic distribution.

SECTION-B

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

9. Define statistics. Explain the characteristics of Statistics

(OR)

10. Prepare a frequency polygon from the following data.

C.I	0-10	10-20	20-30	30-40	40-50	50-60
F	13	17	15	13	10	7

11. Explain various types of averages.

(OR)

12. Calculate median from the following data.

Class Interval	0-10	10-20	20-30	30-40	40-50	50-60
Frequency	10	5	6	7	4	6

13. Explain various types of measures of dispersion.

(OR)

14. Calculate Quartile Deviation from the following data.

C.I	20-30	30-40	40-50	50-60	60-70	70-80	80-90	90- 100
Frequency	2	7	15	22	13	12	9	4

[P.T.O]

15. Explain the different types of kurtosis.

(OR)

16. Calculate Bowley Co-efficient of Skewness from the following data.

C.I	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89
Frequency	5	9	14	20	25	15	8	4

17. Explain various measures of correlation.

(OR)

18. From the following data calculate Karl Pearson's Co-efficient of correlation.

X	12	24	15	24	20	10	16	24	18	20
Y	15	25	18	16	20	20	18	25	26	20

Room No: _____ Regd No_____

98

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com[GEN,TP,COMP,LOG]/BCA/BBA	Max Marks: 50	
Subject	: Commerce and Management	Pass Mark : 20	
Title of Paper	: **Retailing**	Duration	: 2 Hrs
Paper Code	: R20SDC302B	Time	: 2pm to 4pm
W.E.F	: 2021-22	Date	: 11/11/2025.

SECTION-A

I. Answer any FOUR of the following Questions. **4X5=20M**

1. Write a short note on store based retailing.

2. Write a brief note on significance of retailing.

3. What are the objectives of retailing?

4. What is Administrative Mechanism?

5. Write a short note on e-retailers.

6. Write a brief note on Visual Merchandising.

7. Write any five points elevating the importance of customer loyalty.

8. Write the purpose of job profile.

SECTION-B

II. Answer any THREE of the following questions. **3X10=30M**

9. What is retailing and explain the factors that influence the growth of Retailing in India.

10. Explain the role of retailing in today's market environment.

11. What are the key points to be considered while designing store layout?

12. Explain the importance of Human Resource in Retailing.

13. What precautions should be observed when communicating with customers?

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II BBA Hons	Max Marks	: 60
Subject	: Commerce	Pass Mark	: 24
Title of Paper	: **Business Laws**	Duration	: 3 Hrs
Paper Code	: R23BBA301	Time	: 2pm to 5pm
W.E.F	: 2024-25	Date	: 4/11/2025

SECTION-A

I. Answer ALL the following Questions **5X12=60M**

1. Define "contracts" and explain about the essentials of a valid contract

(OR)

2. Who is a minor? Explain the rules regarding minor's Agreement

3. Define promissory note and Bills of exchange. Write about its differences.

(OR)

4. What is partnership act 1932? Explain various kinds of partners

5. Define Company? Explain meaning and features of company?

(OR)

6. Discuss various types of meetings and resolutions under companies act 2013

7. Explain differences between Sale and Agreement to sale

(OR)

8. Write about implied conditions and implied warranties

9. Write the legal aspects regarding digital signature

(OR)

10. Define Consumer Protection Act 2019? What are the Rights of Consumer?

Room No: _____ Regd No_____

100

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc[MPC/MPCS/MECS/MSCS/MCCS]	Max Marks	: 60
Subject	: Mathematics	Pass Mark	: 24
Title of Paper	: **Abstract Algebra**	Duration	: 3 Hrs
Paper Code	: R20MAT301A	Time	: 2pm - 5pm
W.E.F	: 2023-24	Date	: 03-11-2025

SECTION-A

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

1. Let (G, .) be a group then prove that $(ab)^{-1} = b^{-1}a^{-1}$ for all $a, b \in G$.

2. In a group G, for all $a \in G$ then prove that $o(a) = o(a^{-1})$.

3. If H_1 and H_2 are two subgroups of a group G then prove that $H_1 \cap H_2$ is subgroup of G.

4. Prove that every subgroup of an abelian group is Normal.

5. Examine whether $f = \begin{pmatrix} 1 & 2 & 3 & 4 & 5 & 6 & 7 \\ 3 & 2 & 4 & 5 & 6 & 7 & 1 \end{pmatrix}$ is an even or odd Permutation.

6. Prove that every Cyclic group is an abelian group.

7. Prove that every field is an integral domain.

8. Prove that a field has no proper ideals.

SECTION-B

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

9. In a group G, for $a, b, x, y \in G$ Prove that the equations $ax = b$ and $ya = b$ have unique solutions in G.

(OR)

10. A finite semigroup satisfying cancellation laws is a group.

11. If H and K are two subgroups of a group G then prove that HK is a subgroup of G iff HK = KH

(OR)

12. State and prove Lagrange's theorem for finite Groups.

13. Prove that a subgroup H of a group G is normal subgroup of G iff the product of any two right cosets of H in G is again a right coset of H in G.

(OR)

14. State and prove Fundamental theorem on Homomorphism of groups.

15. State and prove Cayley's Theorem

(OR)

16. If p is a prime number then prove that every group of order p is a cyclic group.

17. Prove that every finite integral domain is a field.

(OR)

18. If U_1 and U_2 are two ideals of a ring 'R' then prove that $U_1 \cup U_2$ is an ideal of R iff $U_1 \subseteq U_2$ or $U_2 \subseteq U_1$

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS

III – SEMESTER END EXAMINATIONS

Class	: II BCA, B.Voc (IT & WT)	Max Marks	: 75
Subject	: Mathematics	Pass Mark	: 30
Title of Paper	: Algebraic Solutions And Numerical Analysis	Duration	: 3 Hrs
Paper Code	: R20BSMAT301	Time	: 2pm-5pm
W.E.F	: 2022-23	Date	: 03-11-2025

SECTION-A

I. Answer any FIVE of the following Questions **5X5=25M**

1. For the series of 2+8+14+20+..... find the 10th term and sum of 10 terms.

2. Find the 5 GM's between 16 and ¼.

3. Evaluate $\underset{x\to 7}{Lt}\dfrac{\sqrt{x+2}-3}{x-7}$

4. Evaluate $\underset{x\to\frac{\pi}{2}}{Lt}\dfrac{\cos x}{x-\frac{\pi}{2}}$

5. Prove that $\Delta \log f(x) = \log\left[1+\dfrac{\Delta f(x)}{f(x)}\right]$

6. Derive Stirling's Difference Formula.

7. Find the number of ways of arranging the letters of the word INDEPENDENCE and MATHEMATICS.

8. Prove that $25_{c_4} + \sum_{r=0}^{4}(29-r)_{c_3} = 30_{c_4}$

SECTION-B

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

9. Find the 4 Arithmetic means between 4 and 29.

(OR)

10. The 6th term of GP is 1215 and 3rd term is 45. Find the sum of first 6 terms.

11. Find $\underset{x\to 0}{Lt}\dfrac{(1+x)^{\frac{1}{8}}-(1-x)^{\frac{1}{8}}}{x}$

(OR)

12. Find $\underset{x\to a}{Lt}\dfrac{Tanx-Tana}{x-a}$

13. State and prove Newton-Gregory's backward interpolation formula with equal intervals.

(OR)

14. Using Newton's forward formula, find the value of f(1.6) from the following data.

X	1	1.4	1.8	2.2
Y	3.49	4.82	5.96	6.5

15. Apply Bessel's formula to obtain y_{25}, given that y_{20}=2854, y_{24}=3162, y_{28}=3544, y_{32}=3992.

(OR)

16. Derive Gauss forward difference formula.

[P.T.O]

17. Find the number of ways of selecting 11 numbers of cricket team from 7 batsman, 6 Bowlers and 2 wicket keepers that the team contains atleast 4 bowlers and 2 wicket keepers.

(OR)

18. Find the number of 5 letter words that can be formed using the letters of the word CONSIDER

i. How many of them begin with C. ii. How many of them end with R.

iii. How many of them begin with C and end with R.

Room No: _____ Regd No _____

103

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II Degree(All Groups)	Max Marks	: 50
Subject	: Mathematics	Pass Mark	: 20
Title of Paper	: **Analytical Skills**	Duration	: 2Hrs
Paper Code	: R20LSC301	Time	: 2 p.m. to 4. p.m.
W.E.F	: 2021-22	Date	: 24-10-2025

SECTION-A

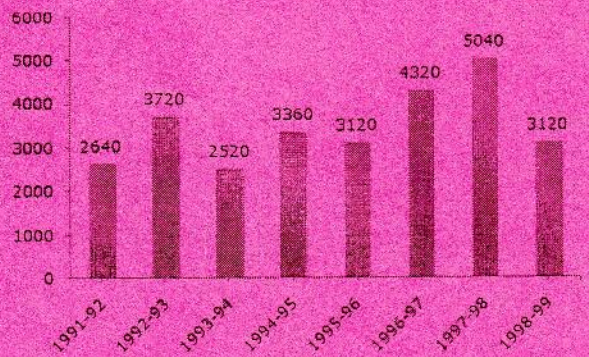
I. Answer Any TEN questions of the following **10X2=20M**

1. Simplify 18-[5- {6+2(7- 8 -5)}].
2. Find the H.C.F of 108,288and 360.
3. Express 56% and 4% as a fraction.
4. If a:b = 5:9 and b:c = 4:7 find a:b:c ?
5. Find the missing number in the series 5,16,49,104.
6. Mohan bought bicycle for Rs. 750/- and sold it for Rs.675./-. Find his loss percentage?
7. What is the angle between the two hands of clock? When the time is 5'o clock?
8. Find the day of week august 15th, 1947?
9. Find out the wrong number in the series 22,33,66,99,121,279,594.
10. Find the average of first 20 multiples of 7?
11. What least value must be assigned to * so that the number 197*5462 is divisible by 9?
12. The speed of train is 90kmph. What is the distance covered by it in 10 mins?
13. By selling an article at Rs. 600, a profit of 25% is made find its cost price
14. Rajeev's age after 15 years will be 5 times his age 5 yr's back what is the present age of Rajeev?
15. Find the LCM of 28,35,56 and 84?

SECTION- B

II. Answer any FIVE of the following. **5X6=30M**

16. The bar graph given below shows the foreign exchange reserves of a country (in million US $) from 1991 - 1992 to 1998 - 1999.



[P.T.O]

i) The ratio of the number of years, in which the foreign exchange reserves are above the average reserves, to those in which the reserves are below the average reserves is?

A.2:6 B. 3:4 C. 3:5 D. 4:4

ii). The foreign exchanger serves in1997-98 was how many times that in 1994-95?

A.0.7 B.1.2 C. 1.4 D. 1.5

iii). For which year, the percent increase of foreign exchange reserves over the previous year, is the highest?

A.1992-93 B.1993-94 C. 1994-95 D.1996-97

17. The average monthly income of P & Q is Rs. 5050. The average monthly income of Q& R us Rs, 6250 and average monthly income of P& R us Rs, 5200. Then find the monthly income of P?

18. A,B,C started a business by investing Rs. 1,20,000, 1,35,000 and 1,50,000/- respectively. Find the share of each, out of an annual profit of Rs. 56,700?

19. Find the angle between the hours hand and minutes' hand of the clock when the time is 08:30?

20. Explain any FIVE divisibility Rules.

21. Explain type s of VENN diagrams.

22. A book was sold for Rs. 27.50 with a profit of 10%. If it were sold for 23.75, then what would have been the percentage of profit or Loss.

23. The present age of a father is 3 years more than 3 times the age of his son. 3 years hence, father's age will be 10 years more than twice the age of son. Find the present age of the father?

24. On what dates of July 2004 did Monday fall?

25. In how many years, Rs. 150 will produce the same interest 8% as Rs. 800 produce the 3 yr's 4 ½ %?

Room No: _____ Regd No _____

105

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc(MPC/MPCS)	Max Marks	: 75
Subject	: Physics	Pass Mark	: 30
Title of Paper	: **Heat and Thermodynamics**	Duration	: 3Hrs
Paper Code	: R20PHY301	Time	: 2pm - 5pm
W.E.F	: 2021-22	Date	: 05-11-2025

SECTION-A

I. Answer ALL of the following questions. **5X10=50M**

1. Explain briefly Maxwell's distribution of molecular velocities and its experimental evidence.

(OR)

2. Derive an expression for thermal conductivity of gas on the basis of kinetic theory of gas.

3. Describe the working of Carnot's Engine and derive an expression for its efficiency.

(OR)

4. What is Entropy? Explain the change of entropy in reversible and irreversible processes.

5. Explain thermodynamic potentials and deduce Maxwell's thermodynamic relations.

(OR)

6. Obtain Classius - Clayperon's equation. Derive the equation for ratio of specific heats.

7. Describe the Joule - Kelvin effect due to the porous plug experiment.

(OR)

8. Distinguish Adiabatic and Joule Thomson expansion. Obtain expression for Joule Thomson cooling.

9. Derive Wien's law and Rayleigh-Jean's law from Planck's law of black radiation law.

(OR)

10. Define Solar constant. Explain how the solar constant is determined using Angstrom's pyrohelio meter?

SECTION-B

II. Answer any THREE of the following questions. **3X5=15M**

11. Explain the transport phenomena on the basis of kinetic theory of gases.

12. State and explain second law of thermodynamics.

13. What is the thermodynamic scale of temperature and its identity with the perfect gas scale?

14. Write the applications of substance at low temperature.

15. Define Stefan's Bolzman's law and Wien's displacement law.

[P.T.O]

SECTION-C

III. Answer any TWO of the following questions. **2X5=10M**

16. The average speed of nitrogen molecule at NTP is 450 m/s. If the density is 1.25 Kg/m^3, coefficient of viscosity is 1.66 x 10^{-5} MKS unit. Calculate the mean free path of Nitrogen molecules.

17. Carnot's engine works between 227^0 C and 27^0 C. If efficiency is 50% what is the percentage of actual efficiency to theoretical efficiency?

18. Determine the temperature of the sun with the help of Wien's law (given b=2.92×10 m k) maximum wavelength (λ) = 4900 Å

19. Calculate the efficiency of reversible heat engine working between 72^0 C and 187^0 C.

Room No: _____ Regd No_____

(107)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc(MPCS)	Max Marks	: 60
Subject	: Physics	Pass Mark	: 24
Title of Paper	: **Heat and Thermodynamics**	Duration	: 3 Hrs
Paper Code	: R20PHY301A	Time	: 2pm - 5pm
W.E.F	: 2023-24	Date	: 05-11-2025

SECTION-A

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

1. Deduce an expression for Diffusion Coefficient of a gas on the basis of Kinetic Theory of gases.
2. What is an Indicator Diagram? Write its uses.
3. Show that the Entropy increases in an Irreversible process.
4. Derive an expression for difference of Specific Heats of an Ideal gas using Maxwell's Thermo dynamic equations.
5. Explain the principle of adiabatic demagnetization.
6. Explain how to determine the temperature of the Sun.
7. An ideal heat engine absorbs heat from a source at 150° C and rejects a part of it to a sink at 20° C. Find the efficiency of the engine.
8. In an atomic explosion, the maximum temperature produced was of the order of 10^7 K. Calculate the wavelength of maximum energy. Wein's constant is 0.292 cm K.

SECTION-B

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

9. Derive an expression for Maxwell's Law of distribution of Molecular Speeds in a gas.

(OR)

10. Derive an expression for the Thermal Conductivity of a gas on the basis of Kinetic theory of gases.
11. State and prove both the statements of Carnot's theorem.

(OR)

12. What is T-S diagram. How Efficiency of a Carnot's engine can be determined using it.
13. Explain about Thermodynamic Potentials. Derive Maxwell's Thermodynamic equations from them.

(OR)

14. Define the Specific heats of a gas. Show that the ratio of the Specific heats of the gas is equal to γ.
15. Derive an expression for the cooling produced when a gas suffers Joule-Thomson effect.

(OR)

16. Describe porous plug experiment to explain Joule-Thomson effect.
17. Derive an expression for Plank's Radiation law.

(OR)

18. Describe the construction and working of Disappearing Optical Pyrometer.

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc (MECS)	Max Marks	: 75
Subject	: Electronics	Pass Mark	: 30
Title of Paper	: Analog Circuits And Communication	Duration	: 3 Hrs
Paper Code	: R20ELE301	Time	: 2pm-5pm
W.E.F	: 2022-23	Date	: 05-11-2025

SECTION-A

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

1. Explain the working of Op-amp as Inverting and Non Inverting amplifier and derive their Voltage Gains.

(OR)

2. What is Differential Amplifier with neat circuit diagram and explain the working of Differential Amplifier?

3. Draw the circuit of sine wave generator using OP-AMP? Explain its working derive Expression for frequency of oscillations?

(OR)

4. Draw and explain the functional block diagram of IC 555 and its applications

5. What is Modulation ? Describe with suitable waveforms the working of amplitude Modulation.

(OR)

6. What is Detection? Describe the the working of a diode detector for AM Waves.

7. Explain frequency modulation techniques and describe its frequency spectrum

(OR)

8. Explain the generation of FM modulation by using varactor diode.

9. Draw the block diagram of AM transmitter and explain each block

(OR)

10. Draw the block diagram of FM Super heterodyne receiver and explain each block.

SECTION-B

II. Answer any FIVE of the following Questions **5X5=25M**

11. What are Ideal Characteristics of OP-AMP.

12. Explain the Concept of virtual ground in OP-AMP.

13. Explain the working of Instrumentation Amplifier?

14. Explain the working of Schmitt's trigger?

15. Explain the different types of Modulations.

16. Derive an expression for the total power in an AM wave.

17. Define the terms i)deviation ration ii)modulation index iii)percent modulation

18. Explain radio broadcasting and reception.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hons [Comp]	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **E-Commerce And Web Designing**	Duration	: 3 Hrs
Paper Code	: R23BCOMP301	Time	: 2pm-5pm
W.E.F	: 2024-25	Date	: 31-10-2025

SECTION-A

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

1. Define E-Commerce. Write the advantages.

2. Write a short note on B2C.

3. Explain Electronic Payment.

4. Explain the structure of CSS.

5. Explain the features of HTML.

6. Explain CRM.

7. Explain the features of Web.

8. Explain the Risk Management.

SECTION-B

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

9. Explain briefly about Business Model associated with E-Commerce.

(OR)

10. Differentiate between Commerce and E-Commerce.

11. Explain about B2B Software System.

(OR)

12. Write the features of CRM.

13. Explain about various Electronic Payment Modes.

(OR)

14. Write the case study of Risk Management in E-commerce applications.

15. Explain the different types of HTML Tags.

(OR)

16. Explain HTML elements and attributes.

17. Explain CSS Box Model.

(OR)

18. Explain about cascading style attribute.

Room No: _____ Regd No_____ (2)

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.C.A Honours	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Software Engineering**	Duration	: 3Hrs
Paper Code	: R23BCA304	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 31-10-2023

SECTION-A

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

1. Define Software Engineering? Write about Principles of Software Engineering?

2. Explain about Prototype Model?

3. Write about various people involved in Software Engineering?

4. Write a short note on Extended Function point Metrics?

5. Explain about Risk Identification?

6. Write about Quality Function Deployment?

7. Explain about Cost of Quality?

8. Write about Testing Levels?

SECTION - B

II. Answer ALL of the following questions? **5X8=40M**

9. Explain about Process Framework?

(OR)

10. Explain about Object Oriented Life Cycle Model?

11. Discuss about Size Oriented Metrics?

(OR)

12. Explain in detail about Software Project Management Spectrum?

13. Explain about RMM Plan?

(OR)

14. Discuss about COCOMO?

15. Explain about Data Flow Diagrams?

(OR)

16. Discuss about Human Computer Interface Design?

17. Explain about White Box Testing?

(OR)

18. Explain in details about Testing Principles?

Room No: _____ Regd No _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BSc.Hons[Computer Science]	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Computer Organisation**	Duration	: 3Hrs
Paper Code	: R23CSC303	Time	: 2pm-5pm
W.E.F	: 2024-2025	Date	: 31-10-2025

SECTION-A

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

1. Write a short note on Bus and Memory transfers.
2. Write a short note on Instruction Cycle.
3. Write a short note on Control Memory.
4. Write a short on different types of instructions.
5. Write a short note on address mapping using pages.
6. Write a short note on memory mapping techniques for transformation of CPU.
7. Write a short note on input-output processor.
8. Write a short on Parallel processing.

SECTION-B

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

9. Explain in detail about arithmetic micro operations using circuit diagram and functional table.

(OR)

10. Explain in details about logic and shift micro operations using circuit diagram and functional table.
11. Explain detail about instruction formats in CPU.

(OR)

12. Explain in detail about different addressing modes techniques in computer architecture.
13. Explain in details main memory, auxiliary memory and cache memory.

(OR)

14. Explain in detail about memory mapping and concept of virtual memory.
15. Explain in detail about modes of I/O data transfer.

(OR)

16. Explain in detail about input/output processor with help of a block diagram.
17. Explain in detail about Pipeline Processing and vector (array) processing.

(OR)

18. Write a short note on multiplication and division algorithms.

(H)

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

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Voc Hons (WT)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Angular JS**	Duration	: 3 Hrs
Paper Code	: R23WT304	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 31-10-2025

SECTION-A

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

1. What is JavaScript ? Explain its Advantages.

2. Explain about Objects in JavaScript.

3. Explain about JSON.

4. Write a note on Angular MVC.

5. Differentiate between While and Do while Loop in JavaScript.

6. Explain about ng-bind directive.

7. Explain about the text area element.

8. How do you handle form submission in Angular JS?

SECTION-B

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

9. Explain about Data types in JavaScript.

(OR)

10. Explain briefly about functions in JavaScript

11. Explain the Conditional Statements in JavaScript

(OR)

12. Explain in detail about JavaScript Operators.

13. Explain about Angular Expressions

(OR)

14. Explain AngularJS Modules.

15. Explain about Event Handling

(OR)

16. Explain about Built-in Directives in Angular JS.

17. Differentiate between Client Side Validation and Server Side Validation

(OR)

18. Explain about Form elements.

Room No: _____ Regd No_____ (B)

KAKARAPARTI BHAVANARAYAN. . COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.B.CA.Hons	Max Marks	: 50
Subject	: Compùters Applications	Pass Mark	: 20
Title of Paper	: **Data Analysis**	Duration	: 2Hrs
Paper Code	: R23SDP302	Time	: 2pm - 4pm
W.E.F	: 2024-2025	Date	: 24-10-2025

SECTION-A

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

1. What is Data Science? Describe its applications.

2. Define Big Data and explain its key characteristics.

3. Discuss the different roles in a Data Science team.

4. What is Data Preprocessing? Explain.

5. Explain the concept of Feature Selection.

6. What is Attribute Selection? Discuss in detail.

7. Explain Logistic Regression with suitable examples.

8. Define Association Rules. Explain their importance.

SECTION-B

II. Answer Any Three Of the following Questions **3X10=30M**

9. Describe the Life Cycle of Data-Centric Projects.

10. Explain the components of Big Data Architecture.

11. What is Measure of Central Tendency? Explain with examples.

12. Discuss the working of the K-Means Algorithm.

13. Explain the process of Decision Tree Classification.

(6)

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III -- SEMESTER END EXAMINATIONS

Class	: II.B.C.A.Hons	Max Marks : 60
Subject	: Computer Applications	Pass Mark : 24
Title of Paper	: **Database Management System**	Duration : 3Hrs
Paper Code	: R23BCA301	Time : 2 pm - 5 pm
W.E.F	: 2024-2025	Date : 03-11-2025

SECTION-A

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

1. Explain about Database vs File system.
2. Explain about database system architecture.
3. Explain about integrity constrains.
4. Explain about types of keys.
5. Explain about generalization and specialization.
6. Explain about set operations.
7. Explain about sub queries.
8. Explain procedure to create PL/SQL program.

SECTION-B

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

9. Explain about advantages and Disadvantages of Database system.

(OR)

10. Explain about types of Data models.

11. Explain about Normalization.

(OR)

12. Explain different Types of relational operations.

13. Explain about building blocks of ER diagram.

(OR)

14. Explain about DDL, DML, DQL commands.

15. Explain about TCL, DCL commands.

(OR)

16. Explain about joins in SQL.

17. Explain about control structures in PL/SQL.

(OR)

18. Explain about Exception handling.

(7)

Room No: _____ **Regd No** _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BBA Hons(Business Analytics)	Max Marks	: 60
Subject	: Computer Applications	Pass Mark	: 24
Title of Paper	: **Database Management System**	Duration	: 3Hrs
Paper Code	: R23BBACSC301	Time	: 2pm-5pm
W.E.F	: 2024-2025	Date	: 03-11-2025

SECTION-A

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

1. Write the advantages of DBMS.
2. Explain about data, information.
3. Explain about types of Entities.
4. Write the advantages of ER modelling.
5. Explain about Relational Calculus.
6. Explain about Functional Dependencies.
7. Explain about Select Command.
8. Explain about Data Types in PL/SQL.

SECTION-B

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

9. Explain about architecture of DBMS.

(OR)

10. Explain about types of Data models

11. Explain about ER Model Symbols and Notations

(OR)

12. Explain about Generalization

13. Explain about CODD Rules

(OR)

14. Explain about Different types of Keys

15. Explain about Joins.

(OR)

16. Explain about Relational Set Operators.

17. Explain about Structure of PL/SQL.

(OR)

18. Explain about Functions.

(R)

Room No: _____ Regd No_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class : II.BSc.Hons[AI]
Subject : Computer Science
Title of Paper : **Operating Systems**
Paper Code : R23AI302
W.E.F : 2024-2025

Max Marks : 60
Pass Mark : 24
Duration : 3Hrs
Time : 2pm:-5pm
Date : 03-11-2025

SECTION-A

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

1. What is an operating system? Write its objectives and functions?
2. Explain the evaluation of operating system?
3. What is Synchronization? Explain?
4. What is Thread? Explain?
5. Write the advantages of Memory concept.
6. Explain about features of Unix.
7. Explain about Echo Statement.
8. What are advantages of Shell programming?

SECTION-B

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

9. What is an Operating System? Explain functions of operating system?

(OR)

10. Explain different Types of Operating System.

11. What is process? Explain process state diagram and process control block?

(OR)

12. Explain the Preemptive Scheduling Algorithms?

13. Explain about Segmentation.

(OR)

14. Explain about Page replacement algorithms.

15. Explain about Architecture of Unix.

(OR)

16. Explain any 5 Unix Commands.

17. Explain about for statement.

(OR)

18. Explain about while statement.

Room No: _____ Regd No: _____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Com Hons [Comp]	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Digital Marketing**	Duration	: 3 Hrs
Paper Code	: R23BCOMP302	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 03-11-2025

SECTION-A

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

1. Write a note on content marketing.

2. What is a landing page, and why is it important in online advertising campaigns?

3. What is the primary purpose of opt-in email advertising, and why is permission-based marketing important?

4. What are two key characteristics of a successful social media marketer?

5. Define On-Page Optimization.

6. Define Social Media Marketing.

7. Explain the concept of affiliate marketing in a few sentences.

8. Describe the process of SERP.

SECTION-B

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

9. Discuss about the Evolution of Digital Marketing over time.

(OR)

10. Discuss Various Digital Marketing Channels available in detail.

11. Discuss the advantages and disadvantages of online advertising compared to traditional methods.

(OR)

12. Analyse the impact of mobile devices on online advertising strategies. How have mobile trends influenced ad formats and targeting methods?

13. Describe the concept of email marketing and its significance in modern digital marketing strategies.

(OR)

14. Evaluate the advantages and disadvantages of email marketing as a channel for reaching and engaging with target audiences.

15. Outline the key Components of a comprehensive social media marketing plan and explain why each element is essential.

(OR)

16. Explore the various tools available for social media marketing, including their features and how they contribute to effective campaign management and analysis

17. Discuss the significance of SEO in Modern Digital Marketing Strategies.

(OR)

18. Analyse the importance of keyword research in SEO and its impact on website visibility.

(10)

Room No: _____ **Regd No**_____

KAKARAPARTI BHAVANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II.BSc.Hons[CS]/B.Voc[SD]	Max Marks	: 60
Subject	: Computer Science & Applications	Pass Mark	: 24
Title of Paper	: Operating Systems	Duration	: 3Hrs
Paper Code	: R23CSC304/R23CT303	Time	: 2pm-5pm
W.E.F	: 2024-2025	Date	: 03-11-2025

SECTION-A

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

1. Explain the evolution of Operating Systems?
2. Explain about Process Abstraction?
3. Explain Deadlock necessary condition?
4. Explain about Threads?
5. Explain about Shared Memory?
6. Explain about Demand Paging?
7. Write about physical and virtual address space?
8. What is Synchronization? Explain?

SECTION-B

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

9. Explain different types of an Operating System?

(OR)

10. What is an Operating System? Explain functions of an Operating System?

11. What is System call? Explain System call in detail?

(OR)

12. Explain about Non-Preemptive scheduling Algorithms?

13. Explain Dead Lock Prevention techniques?

(OR)

14. Explain about the Critical Section Problem in detail.

15. Explain about Memory Allocation Strategies?

(OR)

16. Explain about Paging in detail.

17. Explain different File Allocation Methods?

(OR)

18. Explain about Disk Scheduling Algorithms?

Room No: _____ Regd No: _____

KAKARAPARTI B.[illegible]VANARAYANA COLLEGE (AUTONOMOUS)

III – SEMESTER END EXAMINATIONS

Class	: II B.Sc Honours (AI)	Max Marks	: 60
Subject	: Computer Science	Pass Mark	: 24
Title of Paper	: **Introduction to OOP Using Java**	Duration	: 3 Hrs
Paper Code	: R23AI303	Time	: 2pm - 5pm
W.E.F	: 2024-25	Date	: 05-11-2025

SECTION-A

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

1. Difference between POP and OOP.

2. Explain about JVM.

3. Explain about the Multidimensional Array.

4. How to create object.

5. Explain about default constructor.

6. Explain about parameterized constructor.

7. How to create thread with example.

8. Explain Java applications Vs Java Applets.

SECTION-B

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

9. Explain basic concepts of OOP.

(OR)

10. Explain different types of operators in Java.

11. Explain about the Decision – Making statements with examples.

(OR)

12. What is constructor? Explain different types of constructor.

13. What is inheritance? Explain different types of inheritance.

(OR)

14. Explain about Method overloading over riding with examples.

15. Define package? How to create and access our own package.

(OR)

16. Explain about Thread life cycle.

17. Explain about the exception handling.

(OR)

18. What is Applet? How to working with Applet.