

BCA: 2nd Semester

MATHEMATICS-II

Exam Code: 102

OBJECTIVE

To enable professional undergraduate students to understand the importance of mathematics in computer science.

QUESTIONS

- 1) Discuss Sets & its types with example.
- 2) What are the Properties of Relations, & Functions explain.
- 3) What are hashing functions & Recursive function?
- 4) What is Representation of POSETS using Hasse diagram,
- 5) What is graph, distance of a graph, cut-edges & cut vertices, isomorphic and homomorphism graph?

PROCEDURE:

For completing the assignment students should refer to the books mentioned in syllabus and they can take help from internet. The assignment should be handwritten and properly filled. Students should make assignment in the following manner:

1. Cover page
2. Objectives
3. Index
4. Content
5. Conclusion
6. References
7. Softcopy AND Hardcopy
8. Give proper headings and subheadings
9. Explain every topic in points and using diagrams.
10. Put Examples

OUTCOME:

After doing this assignment, students will come to understand the importance of mathematics in computer science.

REFERENCE BOOKS:

TEXT BOOKS:

[T1] Rosen, K.H., Discrete Mathematics and its Applications, McGraw Hill, (2006) 6th ed.

[T2] Kolman, Busby and Ross, "Discrete Mathematical Structure", PHI, 1996.

REFERENCE BOOKS:

[T1] S.K. Sarkar, "Discrete Maths"; S. Chand & Co., 2000

Objectives:-The main objective of course is to familiarize the student's principles of management, function and procedures. Endeavour is to provide theoretical inputs and application of practical aspects.

Question:-

Q 1. What is management. What are the roles and key skills of manager?

Q 2. What is planning? Explain types of plan and planning process.

Q 3. Write short note on

- a. Maslow's need hierarchy model
- b. X, Y and Z theory

Q 4. Explain leadership styles.

Q 5 Explain controlling process and types of control.

Procedure:- For completing the assignment students should refer to the books mentioned in syllabus and they can take help from internet. The assignment should be handwritten and properly filled. Students should make assignment in the following manner:

1. Cover page
2. Objectives
3. Index
4. Content
5. Conclusion
6. References
7. Softcopy OR Hardcopy
8. Give proper headings and subheadings
9. Explain every topic in points and using diagrams.
10. Put Examples

Outcome:-After doing the assignment, students will understand the Basics of Principles of Management which will further help them in their career and Professional Life.

Reference Books:

1. Koontz. O Donnel and Weirich-"Management", Tata McGraw Hill Publishing Company, New Delhi, 2001.
2. R.K. Chopra-"Principles & Practices of Management", Sun India Publication.
3. P.C. Tripathi and P.N. Reddy, "Principles & Practices of Management", 2nd edition, Tata McGraw Hill

OBJECTIVE:

The objective of this paper is to identify the foundation terms and concepts that are commonly used in Digital Electronics. It also identifies the essential elements for making a Digital Combinational Circuit. This course will give complete descriptions about the terms used in the Digital circuits.

QUESTIONS:

- 1) Define the basic gates and their truth tables.
- 2) Define BCD, Excess 3 codes, Gray codes using a suitable example.
- 3) Discuss the race around condition.
- 4) Explain the Serial in Serial Out, Parallel in Parallel Out registers.
- 5) What is Ripple Counter?

PROCEDURE:

For completing the assignment students should refer to the books mentioned in syllabus and they can take help from internet. The assignment should be handwritten and properly filled. Students should make assignment in the following manner:

1. Cover page
2. Objectives
3. Index
4. Content
5. Conclusion
6. References
7. Softcopy AND Hardcopy
8. Give proper headings and subheadings
9. Explain every topic in points and using diagrams.
10. Put Examples

OUTCOME:

After doing this assignment, students will come to understand the important terminologies to related to the Digital Electronics.

REFERENCE BOOKS:

- [R1]. R.L.Tokheim, "Digital Electronics, Principles and Applications", Tata McGraw hill, 1999.
- [R2]. W.Gothman, "Digital electronics", PHI.
- [R3]. S. Salivahanan & S. Arivyhgan. "Digital circuits and design", Vikas Publication, 2001
- [R4]. Malvino Leach, "Digital Principles and Application", TMH, 1999.

BCA: 2nd Semester

Data Structures Using C

Exam Code: 108

OBJECTIVE: To enable professional undergraduate students to understand the importance of Knowledge about Data Structures

QUESTIONS

1. Discuss Basic Terminology, Elementary Data Organizations, Classification of data structures and its operations.
2. What are single and multidimensional arrays?
3. Define Stacks and Queues
4. What are lists & trees in data structures?
5. Discuss AVL & B Trees.
6. Discuss Sorting Techniques.

PROCEDURE:

For completing the assignment students should refer to the books mentioned in syllabus and they can take help from internet. The assignment should be handwritten and properly filled. Students should make assignment in the following manner:

1. Cover page
2. Objectives
3. Index
4. Content
5. Conclusion
6. References
7. Softcopy AND Hardcopy
8. Give proper headings and subheadings
9. Explain every topic in points and using diagrams.
10. Put Examples

OUTCOME:

After doing this assignment, students will understand the importance of Data Structures in computer science.

TEXT BOOKS:

[T1] Ashok N. Kamthane, "Introduction to Data Structures in C", Pearson Edu.

[T2] Y. Langsam, Tananbaum, et. al., "Data Structures using C and C++", PHI, 1999.

REFERENCE BOOKS:

[R1] Yashwant Kanetkar, "Data Structures Through C",BPB Publications, 2008

[R2] A.K. Sharma, " Data Structure Using C", Pearson Pvt. Ltd, 2003

OBJECTIVE: To introduce the concept of Back end, data storage in computers, design of a DBMS, Queries to construct database, store and retrieve data from the database.

QUESTIONS:

- 1) What is an entity?
- 2) Explain the difference between Database System & File System.
- 3) List the advantages of SQL.
- 4) Define Normalization.
- 5) What are the elementary concepts of database security?

PROCEDURE:

For completing the assignment students should refer to the books mentioned in syllabus and they can take help from internet. The assignment should be handwritten and properly filled. Students should make assignment in the following manner:

1. Cover page
2. Objectives
3. Index
4. Content
5. Conclusion
6. References
7. Softcopy AND Hardcopy
8. Give proper headings and subheadings
9. Explain every topic in points and using diagrams.
10. Put Examples

OUTCOME:

Students will understand difference between storing data in FMS and DBMS. Also the students will able to know about SQL.

TEXT BOOKS

[T1] R. Elmarsri and SB Navathe, "Fundamentals of Database Systems", Pearson, 5th Ed.

[T2] Singh S.K., "Database System Concepts, design and application", Pearson Education

REFERENCES

[R1] Abraham Silberschatz, Henry Korth, S. Sudarshan, "Database Systems Concepts", 4th Edition, McGraw Hill, 1997.

[R2] A. K. Majumdar, P. Battacharya, "Data Base Management Systems", TMH, 1996.