

BCA: I- Semester

MATHEMATICS-I

Exam Code: 101

OBJECTIVE

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

QUESTIONS

1. Discuss Dependence of Vectors, Eigen -Vectors of a Matrix, Caley-Hamilton Theorem.
2. What is the Intermediate Value Theorem? Give Example.
3. Explain Expansion of Functions (Maclaurin's & Taylor's) with the help of an example.
4. What is the relation Between Gamma and Beta Functions? Explain with the help of an Example

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] Kresyig E., "Advanced Engineering Mathematics", 5th Edition, John Wiley & Sons, 1999.
[T2] Babu Ram, "Engineering Mathematics", Pearson Education.
[T3] Apostol Tom M, Calculus, Vol I and II John Wiley (2003).

REFERENCE BOOKS:

- [R1] B.S. Grewal, "Elementary Engineering Mathematics", 34th Ed., 1998.
[R2] H.K. Dass, "Advanced Engineering Mathematics", S. Chand & Company, 9th Revised Edition, 2001.
[R3] Shanti Narayan, "Differential Calculas", S.Chand & Company, 1998

OBJECTIVE

To have basic understanding of the correct use of English Language and to improve oral as well as written communication skills.

QUESTIONS

5. Discuss the 7 C's of Communication.
6. Explain the Merits & Demerits of Written Communication.
7. What are the Various Types of Report? What are the various essential requirements of Report Writing?
8. Explain the Various types and importance of Listening. What are the various barriers in Listening Process?
9. Discuss Interpersonal Skills & Corporate Communications Skills.

PROCEDURE:

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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:

1. Kavita Tyagi and Padma Misra , “Advanced Technical Communication”, PHI, 2011
2. P.D.Chaturvedi and Mukesh Chaturvedi, “Business Communication – Concepts, Cases and Applications”, Pearson, second edition.

Rayudu, “C.S- Communication”, Himalaya Publishing House, 1994.

BCA: I- Semester	INTRODUCTION TO C LANG.	Code:105
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Pre-requisites: Object Oriented Concepts

Aim: To understand the use of C Language features along with their applications

Objectives: To make students well versed with programming in C.

Assignment Questions:-

Q1. Short Notes on:

- a) Operators
- b) Control statements
- c) Data Types

Q2. What is Function .Explain factorial of a no. using recursion?

Q3. What is Array? Explain with example.

Q4. What is String? Explain with example.

Q5. Explain file handling in C language.

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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

OUTCOMES:

Completion of this assignment Student will be able to understand the Basic and Important term of Information Technology, JAVA and able to correlate the concept with real life problem

REFERENCES:

- a. Brian W. Kernighan, Dennis M. Ritchie Prentice Hall, 1988
- b. LET US C By Yashavant P. Kanetkar

OBJECTIVE: Students will be able to understand the basic Components of the Computer. Student would be able to explain the functioning of Computer. Student should be able to understand the various Components and function of computer.

QUESTIONS

- Q1. What is computer? Explain it with its block diagram.
Q2. Explain the input and output devices of the computer.
Q3. What is network topology? Explain its different types also.
Q4. What is operating System? Write the various functions and types of operating system.
Q5. Explain the concept of computer networks and network topologies.

Procedure: -

- _ Assignment should be Handwritten.
- _ Give proper headings and subheadings.
- _ Use examples.

Students should make assignment in the following manner:

- Cover page
- Objectives
- Index
- Content
- Conclusion
- References

OUTCOMES:

Completion of this assignment Student will be able to understand the Basic and Important term of Information Technology.

TEXT BOOKS

[T1] P. K. Sinha & Priti Sinha , “Computer Fundamentals”, BPB Publications, 1992.

[T2] Anita Goel “Computer Fundamentals”, Pearson.

OBJECTIVE

To enable professional undergraduate students to understand the importance of basic physics.

QUESTIONS

- 1) Discuss Newton's first law of motion, Newton's Second law of motion, Newton's third law of motion and its applications.
- 2) What is Collisions? Discuss Types of collision, elastic collision in 1D & 2D, Inelastic collision in 1D, Perfectly inelastic collision in 1D
- 3) Discuss Capacitance? Principal of Capacitor, Parallel and spherical capacitors, Grouping of capacitors and their capacitance.
- 4) what is the difference between n-p-n & p-n-p transistors, write Advantages of transistors & Integrated Circuit

PROCEDURE:

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9. Explain every topic in points and using diagrams.
10. Put Examples