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:

TE XT 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

FAIRFIELD
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ISO 9001:2008 & 14001:2004

BCA FIRST SEMESTER   TECHNICAL COMMUNICATION PAPER CODE- 103

Objective:

The objective of this assignment is to provide basic knowledge to the students about various aspects of technical communications.

Questions:

1. Define communication and explain the process diagrammatically.
2. What are the factors which are responsible for growing importance of communication.
3. What are the business letters? Draft a Performa of the business letter
4. Explain properties, features and process of technical writing?
5. Differentiate between oral and written communication. Also highlight the advantages and disadvantages of oral communication.

Procedure:

The students should refer to the books mentioned in references and they can also take help from internet. The assignment should be handwritten and properly filled. Students should cover all these headings in their assignments.

- Index
- Introduction
- Objective of the assignments
- Assignment questions with answers
- Conclusion
- References

Outcome:

After completing the assignment, students will understand the various basic concept of technical communications, and will be able to perform better in the subject.

Reference Books:

1. Ashok N. Kamthane, " Computer basics and C programming", Pearson Education
2. Herbert Schidt, " C the completer Reference" Fourth Edition, 2000.

ASSIGNMENT

Objective: To make the students understand : basic concepts of C Language, data types of C, how the programs are developed using C, syntax and the semantics of C programming language, functions of different header files etc.

Assignment Questions :- (Do all questions.)

Q1. What is dynamic memory allocation?

Q2. Write any five differences between array & variable.

Q3. Write a program to check if a number is prime number or not.

Q4. Define the following terms with example:

(a) Array (b) Pointer (c) Function

Q5. What do you mean by Storage classes? Define its all 4 types.

Q6. What do you mean by control constructs? Explain any three of them.

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.

Outcome: - After doing the assignment, students will be able to understand to Understand the Programming Fundamentals and the basics of the 'C' Programming language.

References:-

1. Herbert Schildt, "C The Complete Reference" Fourth Edition, 2000.
2. Yashwant Kanetkar, "Let us C" eighth edition, 2002.
3. E. BalaGuruswamy, "Programming in ANSI C", 2008.
4. Internet

OBJECTIVE:

Students will be able to understand the basic components and functioning of the 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.

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

References:

- P. K. Sinha & Priti Sinha , "Computer Fundamentals", BPB Publications, 1992.

- Anita Goel "Computer Fundamentals", Pearson.

- B.Ram Computer fundamentals Architecture and Organization,New Age Intl.

- Alex Leon & Mathews Leon, "Introduction to Computers", Vikas Publishing .

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:

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:
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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 physics.

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.

[T3]Babu Ram, "Discrete Mathematics", Pearson Education

REFERENCE BOOKS:

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