

INDIAN MARITIME UNIVERSITY

Time Bound Assignment September/October 2020

B Tech (ME) Arrear Examinations

Computer Science

UG11T3205

Date: 29/09/2020

Time: 3 Hrs

Maximum Marks: 70

Pass Marks: 35

Part – A (compulsory)

Answer the following (10x2=20 Marks)

1. Explain the application of IT in education
2. Explain the characteristics of a computer monitor
3. Define compiler
4. Define LAN
5. Define flowchart? What are its advantages
6. Write pseudo code to read in 5 separate numbers and calculate the average of the five numbers.
7. State whether the following statements are true or false with suitable reason
 - a. A printf statement can generate only one line of output.
 - b. C is an Extensive Language
8. Why and when do we use #include directive?
9. Declare a two-dimensional integer array "mark" with 2 row 3 columns and initialize all the elements
10. Explain pointer variable.

Part – B

Answer any 5 out of 7 questions (5 x 10= 50 marks)

11. a. Classify computers according to size and explain **[5 Marks]**
 - b. Convert $(0110110.1100)_2 = ()_8$ **[2 Marks]**
 - c. Convert $(EFE.45)_{16} = ()_2$ **[1 Marks]**
 - d. Convert $(57.4)_{10} = ()_2$ **[2 Marks]**

12. Write short notes on **[5X2 Marks]**
- Cache memory
 - Firewall
 - Any two devices required in building a computer network.
 - Perform the subtraction of $1010100 - 1010000$ using 2's compliment method
 - Perform the binary multiplication of 11011×101
13. a. What is an Operating System? Explain the types of Operating System. **[5 Marks]**
b. Explain various Network Topologies with their advantages and disadvantages. **[5 Marks]**
14. a. Define algorithm How do you measure the efficiency of an algorithm? **[5 Marks]**
b. Write pseudo code that will display all the odd numbers up to a given number **[5 Marks]**
15. Explain the following with suitable example: **[5X2 Marks]**
- Basic Data types
 - Variables
 - Constant
 - if statement
 - break statement
16. a. Write a C program to find out whether a given number is prime or not **[5 Marks]**
b. Explain any five string functions with example **[5 Marks]**
17. a. Write a C program to Store Information (name, roll and marks) of Student using Structure data where information will be taken as fly(runtime) **[5 Marks]**
b. Explain union suitable example **[5 Marks]**

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