

**First Year B.Sc (MRT) Degree Regular/Supplementary Examinations  
March 2025  
Computer Science**

**Time: 3 Hours****Total Marks: 100**

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers
- Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

**Essay****(2x20=40)**

1. a) Explain the following components of a computer: primary memory, secondary memory, CD ROM Drive and Network card.  
b) What is an algorithm. Draw a flowchart to search for a key value in a given list of 'n' numbers. (The user inputs the 'n' values as well as the key value) (10+10)
2. a) Write a program to add the 10 values stored in an array using pointer. The array is initialized within the program and is of size 10. Display the individual elements of the array, accessing each element using pointer before printing the sum.  
b) Explain in detail about Health Information Technology. (10+10)

**Short notes:****(8x5=40)**

3. Explain in detail about - LAN, MAN and WAN.
4. Bring out the differences between batch processing, multiprogramming, time sharing, and real time system.
5. Explain while and for loops in C with an example for each.
6. Explain dynamic memory allocation in C programming language.
7. What is the difference between pass by value and pass by reference.
8. Write a program to concatenate two string given as input.
9. Discuss the importance of IPR. What is a copyright.
10. Explain email and its working in detail.

**Answer briefly:****(10x2=20)**

11. Explain any two differences between Micro and Mini Computers.
12. List and explain any two advantages of using computer networks.
13. Explain the basic data types in C programming Language.
14. Explain what are Variables and Constants.
15. Explain any four arithmetic operators.
16. What is the importance of firewall.
17. Explain about any two types of computer virus.
18. List any four functionalities of Operating System.
19. Explain the application of IT in education.
20. What is the importance of E-Commerce.

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