(6 pages) **Reg. No. :** .....

Code No. : 30945 E **Sub. Code : FFCS 11**

B.Sc. (CBCS) DEGREE EXAMINATION, NOVEMBER 2024.

First Semester

Computer Science

Foundation Course – PROBLEM SOLVING TECHNIQUES

(For those who joined in July 2024 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer :

1. Which of the following is the brain of the computer?
   (a) Central Processing Unit
   (b) Memory
   (c) Arithmetic and Logic unit
   (d) Control unit

2. Which of the following is not a characteristic of a computer?
   (a) Versatility (b) Accuracy
   (c) Diligence (d) I.Q.

3. A program that can execute high-level language programs.
   (a) Compiler (b) Interpreter
   (c) Sensor (d) Circuitry

4. Source program is compiled to an intermediate form called ————————.
   (a) Byte code (b) Smart code
   (c) Executable code (d) Machine code

5. A program should be ————————.
   (a) Secure (b) Sequential
   (c) Ordered (d) Simple

6. Which of the following is a loop statement?
   (a) IF (b) ELSE
   (c) WHILE (d) DO

7. ———————— is used to show hierarchy in a pseudo code.
   (a) Indentation (b) Curly Braces
   (c) Round Brackets (d) Semicolon

8. The statement that tells the computer to get a value from an input device and store it in a memory location.

(a) read (b) write

(c) READ (d) WRITE

9. The requirement for not repeating the instructions is referred to as the ————————.

(a) Loop exit condition

(b) Looping condition

(c) Conditional statement

(d) Iterative statement

10. In a ———————— loop the condition is evaluated before the instructions within the loop are processed.

(a) Posttest (b) Pretest

(c) Conditional loop (d) Unconditional loop

PART B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Analyze in detail about History of Computer with example.

Or

(b) Compare and Contrast System Software and Application Software.

12. (a) Explain in detail about various Data Types with example.

Or

(b) Outline in brief about Input and Processing of Data with example.

13. (a) Write a Flow Chart to Prepare Student Mark List.

Or

(b) Summarize in detail about Benefits and Drawbacks of Algorithm with example.

14. (a) Illustrate in detail about a Pseudo code with example.

Or

(b) Illuminate in brief about Selecting from Several Alternatives with example.

15. (a) Relate in brief about One Dimensional Array with example.

Or

(b) Plan in detail about Two Dimensional Array with Example.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).

16. (a) Elucidate in brief about various Input Devices with neat diagram.

Or

(b) Discuss in detail about the following

(i) Mini Computer

(ii) Super Computer.

17. (a) Examine in brief about Hierarchy of Operations with example.

Or

(b) Point Out in detail about Different Phases in Program Development with example.

18. (a) Write a Flowchart to find Factorial of n numbers.

Or

(b) Infer in detail about Advantages and Limitations of Flowchart with example.

19. (a) Clear up in brief about Application of Selection Structures with example.

Or

(b) Point out in detail about Relational and Logical Operators with example.

20. (a) Analyze in brief about String as Array of Characters with example.

Or

(b) Illustrate in detail about Nested Loops with example.

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