

Roll No. Total Pages : 2

BT-4/M-13 8402

PROGRAMMING LANGUAGES

Paper : CSE-204(E)

Time : Three Hours] [Maximum Marks : 100

Note : Attempt any *five* questions. All questions carry equal marks.

1. Write down the various programming paradigms available. Write down the key features and the name of a programming language which supports each of these programming paradigms. 20
2. What is the purpose and significance of the following programming constructs in any programming language :
 - (a) Initialization.
 - (b) Operator overloading.
 - (c) BNF and EBNF.
 - (d) Logical operators. 4×5=20
3. (a) What is the difference between "Call by value" and "Call by reference" ? Explain with example in C programming language. 10
(b) Explain the difference between Do-While loop and Repeat-Until loop with suitable example. 10
4. Compare and contrast Object-oriented programming and Structure programming techniques with the help of examples in 'C' and 'C++'. 20

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5. Name and discuss with appropriate reasons the programming languages suitable for the following application fields :
 - (i) Systems and Networks.
 - (ii) GUI design.
 - (iii) Embedded system.
 - (iv) Website development. 4×5=20
6. (a) Why Java is considered as machine independent language ? 10
(b) Write down the advantages and disadvantages of recursion considering factorial of a number 'N' program in 'C' language. 10
7. What is meant by Storage management ? Explain Stack based storage management and compare it with Heap based storage management. 20
8. Differentiate between the following :
 - (i) Implicit and Explicit type conversion.
 - (ii) Static and Dynamic type checking.
 - (iii) Free and Fixed field format.
 - (iv) Exception and Error. 4×5=20

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