

Paper Id:

110519

Roll No:

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B. TECH.
(SEM -V) THEORY EXAMINATION 2019-20
PRINCIPLE OF PROGRAMMING

*Time: 3 Hours**Total Marks: 100***Note:** Attempt all Sections. If require any missing data; then choose suitably.**SECTION A**

- 1. Attempt all questions in brief. 2 x 10= 20**
- a) Give the reason why we study programming language?
 - b) Explain the general Syntactic Criteria of any programming Language.
 - c) What is C-tokens?
 - d) Explain the concept of run time polymorphism.
 - e) What do you mean by translator?
 - f) What are elementary data types?
 - g) What do you mean by syntax and semantic of languages?
 - h) What is lambda calculus?
 - i) Explain routine calls?
 - j) Define recursive function.

SECTION B

- 2. Attempt any three of the following: 10 x 3 = 30**
- a) What do you mean by programming language? Explain different characteristics of a good programming language.
 - b) Is prolog a programming language used for A.I. Explain characteristics of prolog.
 - c) What do you mean by functional programming language? Explain advantage and disadvantage.
 - d) Explain the various evolution of various programming paradigm in detail with suitable example.
 - e) Explain different types of conversion in lambda calculus with suitable example.

SECTION C

- 3. Attempt any one part of the following: 10x 1 = 10**
- a) Explain encapsulation. What is inheritance and explain advantages of it?
 - b) Explain the different Commands of Imperative Language. Also explain the structured Programming.
- 4. Attempt any one part of the following: 10 x 1 = 10**
- a) What do you mean by logic programming? Explain with a suitable example.
 - b) What is abstraction and how many types of abstraction. Explain each in detail.
- 5. Attempt any one part of the following: 10 x 1 = 10**
- (a) What do you mean by primitive data types? What are different features of linear data structure?
 - (b) What is list processing? Explain some characteristics of lisp programming language.
- 6. Attempt any one part of the following: 10 x 1 = 10**
- (a) What is substitution in lambda calculus? Explain and state beta conversion with a suitable example.
 - (b) What do you mean by translators? How many types of translator do you know, brief it
- 7. Attempt any one part of the following: 10 x 1 = 10**
- (a) What do you mean by class object and methods? Explain abstract method in brief.
 - (b) Explain templates. How can it be implemented in programming.