

This question paper contains 2 printed pages]

**AA—50—2019**

**FACULTY OF SCIENCE**

**B.Sc. (CS) (Second Year) (Third Semester) EXAMINATION**

**OCTOBER/NOVEMBER, 2019**

**(CBCS Pattern)**

**COMPUTER SCIENCE**

**(Programming Language Concepts)**

**(Monday, 18-11-2019)**

**Time : 2.00 p.m. to 5.00 p.m.**

*Time—3 Hours*

*Maximum Marks—75*

*N.B. :— (i) All questions are compulsory.*

*(ii) Figures to the right indicate full marks.*

*(iii) Assume suitable data, if necessary.*

1. Attempt any *five* of the following : 15
  - (a) Describe the need to study programming languages.
  - (b) What is Binding time ?
  - (c) Explain syntatic elements of a language.
  - (d) Describe data objects and constants.
  - (e) Explain evaluation of the data type concept.
  - (f) What is inheritance concept ?
  - (g) Explain development of programming languages.
2. Attempt any *two* of the following : 10
  - (a) Explain impact of programming paradigms.
  - (b) Describe application domains in detail.
  - (c) Describe attributes of a good language.
3. Attempt any *two* of the following : 10
  - (a) Explain translators and virtual architectures.
  - (b) Explain Binding concept in detail.
  - (c) Describe computer hardware.

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4. Attempt any *two* of the following : 10
- (a) Explain synthesis of the object program.
  - (b) Describe general syntactic criteria.
  - (c) Explain analysis of the source program.
5. Attempt any *two* of the following : 10
- (a) Explain data types in programming language concepts.
  - (b) Describe Booleans and characters scalar data types in detail.
  - (c) Explain assignment and initialization concepts.
6. Attempt any *two* of the following : 10
- (a) Explain information hiding concept.
  - (b) Describe declarations and type checking for data structures.
  - (c) What is Vector ? Explain with suitable example.
7. Attempt any *two* of the following : 10
- (a) Explain abstract classes with suitable example.
  - (b) Describe derived classes.
  - (c) Explain methods with suitable example.