

Model Question Paper (In Sem.)
Principles of Programming Languages (210255)
Semester IV - Computer Engineering (Savitribai Phule Pune University)

Maximum Marks

Time : 1 Hour

Instructions to the candidates :

- 1) Answer Q. 1 or Q. 2, Q. 3, or Q. 4.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figure to the right indicates full marks.
- 4) Make suitable assumptions if necessary.

- Q. 1**
- (a) Explain in detail history of programming language. (Refer Section 1.2) (5 Marks)
 - (b) What are the various programming language paradigm? Explain in brief with suitable example. (Refer Section 1.7) (5 Marks)
 - (c) List and explain different data types. (Refer Section 2.1) (5 Marks)

OR

- Q. 2**
- (a) Explain the role of programming language in software development. (Refer Section 1.4) (5 Marks)
 - (b) Explain by example the use of data aggregates to construct compound data types : Finite Mapping. (Refer Program 2.1.4) (5 Marks)
 - (c) What are benefits of implementing built-in data types in programming languages ? (Refer Section 2.1.2) (5 Marks)

- Q. 3**
- (a) What is Built-in & Primitive data types? State the primitive data types of C++ & java. (Refer Program 2.1.2) (5 Marks)
 - (b) Explain with examples the need of type conversion in programming language with its types . (Refer Section 2.2.2) (5 Marks)
 - (c) What are abstract data types? How C++ implements abstract data types ? Give example. (Refer Section 2.3) (5 Marks)

OR

- Q. 4**
- (a) What is the use of static variables and methods in Java? Give example of static declaration. What are restrictions on methods which are declared static ? (Refer Section 2.3.1) (5 Marks)
 - (b) What is one possible disadvantage of treating the assignment operator as if it were an arithmetic operator ? (Refer Section 2.2.5) (5 Marks)
 - (c) What are the design issues for abstraction. (Refer Section 2.3.2) (5 Marks)