

Total No. of Questions : 8]

SEAT No. :

P651

[Total No. of Pages : 2

[5869]-280

S.E. (Computer Engineering)

PRINCIPLES OF PROGRAMMING LANGUAGES

(2019 Pattern) (Semester - IV) (210255)

Time : 2½ Hours]

[Max. Marks : 70

Instructions to the candidates:

- 1) Attempt Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Assume suitable data if necessary.

- Q1)** a) Describe primitive data types. List the primitive data types in Java and their respective storage capacity. [6]
- b) Write short notes on Java Virtual Machine(JVM) with diagram. [6]
- c) State the uses of the final keyword in Java? [6]

OR

- Q2)** a) Define String in Java. Explain following operations of class strings in Java with example. [6]
- i) To find length of the string
 - ii) To compare two strings
 - iii) To extract a character from a string
 - iv) To concatenate two strings
- b) Explain Java's role in Internet. Justify the following features of Java. [6]
- i) Secure
 - ii) Architectural Neutral
 - iii) Distributed
- c) Summarize different access controls in Java. Explain the situation if you remove static modifier from the main method. [6]

- Q3)** a) State the difference between character and byte stream in Java. Give any two input and any two output classes for character streams. [6]
- b) Describe Exception. Explain keywords try, catch, throw, throws and finally related to exception handling. [6]
- c) Define package and interfaces in Java? Explain it with suitable example. [5]

OR

P.T.O.

- Q4)** a) Define inheritance. List the advantages of Inheritance. Explain Simple inheritance in java with example. [6]
 b) Elaborate the significance of key word “Super” in Java. Demonstrate with example for Super keyword in Java constructor. [6]
 c) State the importance of finally blocks. Illustrate the ways finally block differ from finalize() method. [5]

- Q5)** a) Interpret the terms multitasking and multiprocessing and multithreading in Java with example. [6]
 b) List the Features, advantages and limitations of Angular JS. [6]
 c) Write the JavaScript code to create Login page Form. [6]

OR

- Q6)** a) Compare React JS and Angular JS and Vue JS. [6]
 b) Elaborate the terms getPriority() and setPriority() methods with example. [6]
 c) Explain the uses of isAlive() and Join() methods in Java thread with example. [6]

- Q7)** a) Describe Functional Programming. Enlist its features. Also list the commonly used functional programming languages. [6]
 b) Write sequences of CAR’s and CDR’s that will pick the atom pear out of the following s-expression : [6]
 i) (apple orange pear grapes)
 ii) ((apple orange) (pear grapes))
 iii) (((apple)(orange) (pear) (grapes)))
 c) Explain the concept of “Structures” in Prolog with example. [5]

OR

- Q8)** a) Describe Logical Programming. Enlist its features. Also list the commonly used Logical programming languages. [6]
 b) Write a LISP program to find the factorial of n numbers using recursion concept. [6]
 c) Explain the following number predicates using suitable example. [5]
 i) NUMBERP
 ii) ZEROP
 iii) PLUSP
 iv) EVENP
 v) ODDP

