Total No. of Questions : 8]

SEAT No. :

P-9114

[Total No. of Pages : 3

[6179]-239
S.E. (Computer Engineering)
PRINCIPLES OF PROGRAMMING LANGUAGES
(2019 Pattern) (Semester - IV) (210255)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates :

1) *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*
2) *Figures to the right indicate full marks.*
3) *Neat diagrams must be drawn wherever necessary.*
4) *Make suitable assumptions whenever necessary.*

Q1) a) Justify the meaning of each characteristic of java in the statement "java is simple, architecture -neutral ,portable, interpreted and robust and secured programming language." **[6]**

b) Define String in Java programming. Explain the following operations of class string in Java with example.1. To find the length of a string. 2. To compare two strings 3. Extraction of character from a string **[6]**

c) Define Constructor. Show the example about overloading of default, parameterized, and copy constructors. **[6]**

OR

Q2) a) Write a program to print the area of a circle by creating a class named 'Area' having two methods. First method named as 'setRadius' takes the radius of the circle as a parameter and the second method named as get 'Area' returns the area of the circle. The radius of circle is entered through the keyboard? **[6]**

b) Explain the Garbage Collection concept in Java Programming with code example. **[6]**

c) Explain command line arguments and variable length arguments in Java with an example. **[6]**

P.T.O.

Q3) a) Elaborate the significance of the keyword " super " in Java. With code example of each case. **[6]**

b) Explain in brief the interface and package in Java with code examples. **[6]**

c) Create a custom Exception class. You need to consider two integer inputs that the user must supply, You will display the sum of the integers if and only if the sum is less than 100. If it is not less than 100, throw your custom exception **[5]**

OR

Q4) a) Elaborate on the significance of the keyword " final" in java. With code example of each case. **[6]**

b) Explain various Exception Handing mechanism in java **[6]**

c) Write a program to create interface A in a package; in this interface we have two methods meth1 and meth2. Implements this interface in another class named MyClass by importing your package. **[5]**

Q5) a) Explain different ways to implement Threads in Java? With code example. **[6]**

b) Explain the below methods in detail **[6]**

i) Isalive

ii) Notify

iii) GetPriority

c) List the Features, advantages and limitations of Vue JS **[6]**

OR

Q6) a) Explain the uses of is Alive() and join() methods in the java thread with examples. **[6]**

b) Explain the thread life cycle model in Java. **[6]**

c) Write a short note on React JS and Angular JS. **[6]**

Q7) a) Explain the features of LISP programming. **[6]**

b) Explain the following Equality predicates using a suitable example. **[6]**

i) EQUAL

ii) EQ

iii) EQL

iv) =

c) Explain the following number predicates using a suitable example. **[5]**

i) NUMBERP

ii) ZEROP

iii) PLUSP

iv) EVENP

v) ODDP

OR

Q8) a) Explain the following functions with suitable examples. **[6]**

i) CAR()

ii) CDR()

iii) FIRST()

b) Describe Logical Programming. Enlist its features. Also, list the commonly used Logical programming languages. **[6]**

c) Evaluate the following forms of LISP. **[5]**

i) (car (cdr '(1 2 3 4 5)))

ii) (car (cdr '(a (b c) d e)))

iii) (car (cdr (cdr '(1 2 3 4 5 6 7 ED))))

▽▽▽▽