[6002]-164

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 whenever necessary.*
4) *Make suitable assumptions whenever necessary.*

Q1) a) Explain following features of java in detail   **[6]**
     i)   Security
     ii)   Platform Independence
     iii)   Object - oriented

    b) Write short note on   **[6]**
     i)   Garbage collector
     ii)   this

    c) Define constructor. Which are the types of Constructor used in Java? Explain with example.   **[6]**

OR

Q2) a) Explain following features of java in detail   **[6]**
     i)   Portability
     ii)   Architecture Neutral
     iii)   Distributed

    b) Write short note on   **[6]**
     i)   final
     ii)   finalize ()

    c) Explain one dimensional and multi - dimensional array used in Java with suitable examples.   **[6]**

Q3) a) What is mean by inheritance? Explain the various types of inheritance used in Java with suitable example.   **[6]**

b) Explain following keywords of Java in detail **[6]**
   i)   try
   ii) catch
   iii) finally

c) Define package used in Java. Explain syntax, use, CLASSPATH, hierarchy of package with example. **[6]**

OR

Q4) a) Elaborate Method overriding and dynamic method dispatch in Java. **[6]**

b) Explain various Exception Handing mechanisms in Java **[6]**

c) What is the concept of stream, Explain byte stream and character stream in detail. **[6]**

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. **[5]**

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. **[5]**

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 8))))

✳ ✳ ✳