AV–1748

B.Sc. (Part—II) Semester–III Examination
3S : COMPUTER APPLICATION (VOC.)
(OOPS with Java Programming)
(New)

Time : Three Hours] [Maximum Marks : 80

Note :— (1) All questions are compulsory.

(2) Question Nos. **2 to 13** carry equal marks.

(3) Assume suitable data wherever necessary.

1. (A) Fill in the blanks :

   (i) The output of the Java compiler is executed by the _____.

   (ii) A _____ is a collection of classes and interface.

   (iii) It is possible to throw an exception explicitly using _____ statement.

   (iv) _____ is the process by which object of one class acquires the properties of another class. 2

   (B) Choose the correct alternatives :

   (i) A thread can be created by using _____ class.
      (a) Multithread   (b) Thread
      (c) Threading   (d) Super Thread

   (ii) Which of these function is called to display the output of an applet ?
      (a) Display( )   (b) Paint( )
      (c) Display Applet( )   (d) Print Applet( )

   (iii) Which of these can be overloaded ?
      (a) Method   (b) Constructors
      (c) Both (a) and (b)   (d) None of the above

   (iv) Which is not a valid type of variable ?
      (a) Global variable   (b) Local variable
      (c) Class variable   (d) Instance variable 2

   (C) Answer in **one** sentence :

   (i) What is byte code ?

   (ii) What is casting ?

   (iii) What is abstract method ?

   (iv) What is Applet ? 4

2. (a) Explain the Java environment with suitable example. 6

   (b) What are various Java features ? Explain it. 6

OR

3. (a) Explain the history of Java. 6

   (b) Explain Object Oriented Programming paradigm. 6

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4. (a) Explain switch statement with suitable example.   6
    (b) Write a Java program for Fibonacci series :
         (1 1 2 3 5 8 13 21 34 ....)   6

                                    OR

5. (a) Write a Java program for sum and average of "n" natural numbers.   6
    (b) Explain looping control structure of Java with suitable example.   6

6. (a) Explain overriding method in inheritance.   6
    (b) How data members of an object can be initialized ? Explain with example.   6

                                    OR

7. (a) Explain the concept of method overloading with suitable example.   6
    (b) Explain the following :
         (i)   This
         (ii) Final modifier.   6

8. (a) What is string ? Explain string declaration and creation with example.   6
    (b) How to add a class to a package ? Explain with suitable example.   6

                                    OR

9. (a) Write a program in Java to find smallest and largest element of an array.   6
    (b) What is package ? Explain how packages are creating and importing with example.
                                                                                            6

10. (a) State and explain life cycle of thread.   6
    (b) What is the need of exception handling ? Explain with example.   6

                                    OR

11. (a) Explain the following :
         (i)   Throw
         (ii) Throws
         (iii) Finally.   6
    (b) How to create your own exception ? Explain.   6

12. (a) Explain the following :
         (i)   Applet tag.
         (ii) Frame.   6
    (b) Explain Running state, Dead state and Display state of Applet life cycle.   6

                                    OR

13. (a) Explain the procedure of writing applets.   6
    (b) Explain the procedure for running of applet program.   6