

17515

11718

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
  - (2) Answer each next main Question on a new page.
  - (3) Illustrate your answers with neat sketches wherever necessary.
  - (4) Figures to the right indicate full marks.
  - (5) Assume suitable data, if necessary.

**Marks**

1. (A) Attempt any **THREE** of the following :

**3 × 4 = 12**

- (a) Explain inheritance and polymorphism features of Java.
- (b) Write any two methods of array list class with their syntax.
- (c) Why java became platform independent language ? Explain.
- (d) Write a program to input name and balance of customer and thread an user defined exception if balance less than 1500.

(B) Attempt any **ONE** of the following :

**1 × 6 = 6**

- (a) Design an applet which display equals size three rectangle one below the other and fill them with orange, white and green color respectively.
- (b) What is the multiple inheritance ? Write a java program to implement multiple inheritance.

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**P.T.O.**

2. Attempt any TWO of the following :

2 × 8 = 16

- (a) Define a class person with data member as Aadhar no, name, Panno implement concept of constructor overloading. Accept data for 5 object and print it.
- (b) What is package ? How do we create it ? Give the example to create and to access package.
- (c) Give the syntax of following methods of graphics class. Explain their use with suitable program :
  - (i) drawRoundReel()
  - (ii) drawPolygon()
  - (iii) drawOval()
  - (iv) drawString( )

3. Attempt any FOUR of the following :

4 × 4 = 16

- (a) Describe following string class method with example :
  - (i) compareTo()
  - (ii) equalsIgnoreCase( )
- (b) Write a program to copy contents of one file to another. Using byte stream classes.
- (c) Explain method overriding with suitable example.
- (d) Enlist any four built in packages in java API with atleast two class name from each package.
- (e) Write a program to check wheater given number is prime or not.

4. (A) Attempt any THREE of the following :

3 × 4 = 12

(a) Write a program to print the following output :

```
1  1  1  1  1
2  2  2  2
3  3  3
4  4
5
```

(b) Illustrate with example the use of switch case statement.

(c) Write a program to create two thread one to print odd number only and other to print even numbers.

(d) What is the use of try catch and finally statement give example.

(B) Attempt any ONE of the following :

1 × 6 = 6

(a) What is importance of super and this keyword in inheritance ? Illustrate with suitable example.

(b) Write a single program to implement inheritance and polymorphism in java.

5. Attempt any TWO of the following :

2 × 8 = 16

(a) What is exception ? Why the exception occurred in program ? Explain with suitable example.

(b) Write a program to define two thread one to print from 1 to 100 and other to print from 100 to 1. First thread transfer control to second thread after delay of 500 ms.

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- (c) How to pass parameter to an applet ? Write an applet to accept Account No and balance in form of parameter and print message “low balance” if the balance is less than 500.

6. Attempt any FOUR of the following :

4 × 4 = 16

- (a) What is the use of wrapper classes in Java ? Explain float wrapper with its methods.
- (b) Write a program to accept number from command line and print square root of the number.
- (c) Write any four methods of File Input stream class give their syntax.
- (d) Write a applet program to set background with red colour and fore ground with blue colour.
- (e) Describe access control specifiers with example.
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