

22412

12425

03 Hours / 70 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.
- (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following :

10

- Enlist any four features of java.
- Write the use of 'this' keyword.
- Write the use of super keyword.
- Explain the use of throw and throws.
- Enlist the life cycle methods of Applet.
- Give two methods of file class.
- Write the use of <PARAM> tag in an applet.

P.T.O.

- 2. Attempt any THREE of the following :** **12**
- a) Write a program using `sqrt()` and `pow()` to calculate the square root and power of given number.
 - b) Write a program to accept four numbers from user using command line arguments and print the smallest number.
 - c) Explain two ways of creating threads in java with suitable example.
 - d) Give the usage of following :
 - i) `set Color ()`
 - ii) `get Color ()`
 - iii) `set Foreground ()`
 - iv) `set Background`
- 3. Attempt any THREE of the following :** **12**
- a) Write a java program to copy the contents of one file into another.
 - b) Write a program to create user defined exception “MIN-BAL”. Throw the exception when balance in account is below 500 rupees.
 - c) Define a class employee having data members as `emp_id`, `name` and `salary`. Accept and display the data for five employees.
 - d) Write the use of ‘Final’ key word with suitable example.
- 4. Attempt any THREE of the following :** **12**
- a) Enlist and explain four access specifiers in java.
 - b) Write a program to demonstrate the use of conditional operator and switch case statement.
 - c) Explain how to create a package and import it with suitable example.
 - d) Draw and explain life cycle of thread.
 - e) Explain garbage collection mechanism in java with suitable example.

- 5. Attempt any TWO of the following :** **12**
- a) Explain dynamic method dispatch mechanism with suitable example.
 - b) Write a program to check whether entered number is Armstrong number or not.
 - c) Design an Applet using <PARAM> tag to accept the two numbers and perform arithmetic operations.
- 6. Attempt any TWO of the following :** **12**
- a) Explain life cycle of an Applet with suitable example.
 - b) Write a program to create two threads. One thread will display the odd numbers from 1 to 50 and the other thread will display the even numbers.
 - c) Describe the use of any methods of vector class with their syntax. (Any six methods)
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