

17515

16172

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

Marks

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

3 × 4 = 12

- (a) State and explain any four features of Java.
- (b) Write any four methods of file class with their use.
- (c) Explain any two relational operators in Java with example.
- (d) What is thread ? Draw thread life cycle diagram in Java.

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

1 × 6 = 6

- (a) What is single level inheritance ? Explain with suitable example.
- (b) What is package ? State how to create and access user defined package in Java.

2. Attempt any TWO of the following :

2 × 8 = 16

- (a) Write a program to add 2 integer, 2 string and 2 float objects to a vector. Remove element specified by user and display the list.
- (b) What is meant by interface ? State its need and write syntax and features of interface.
- (c) Explain applet life cycle with suitable diagram.

3. Attempt any FOUR of the following :

4 × 4 = 16

- (a) Explain the following methods of string class with syntax and example :
 - (i) substring()
 - (ii) replace()
- (b) Write a program to find sum of digit of number entered by user.
- (c) What is Iterator class ? Give syntax and use of any two methods of Iterator class.
- (d) Describe the following attributes of applet :
 - (i) Codebase
 - (ii) Alt
 - (iii) Width
 - (iv) Code
- (e) State three uses of final keyword.

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

3 × 4 = 12

- (a) Write all primitive data types available in Java with their storage sizes in bytes.
- (b) What is thread priority ? Write default priority values and methods to change them.
- (c) Write a program to generate Fibonacci series 1 1 2 3 5 8 13 21 34 55 89.
- (d) Differentiate between Applet and Application (any 4 points).

(B) Attempt any ONE of the following :

1 × 6 = 6

- (a) Write a program to draw a bar chart for plotting students passing percentage in last 5 years.
- (b) What is garbage collection in Java ? Explain finalize method in Java.

5. Attempt any TWO of the following :

2 × 8 = 16

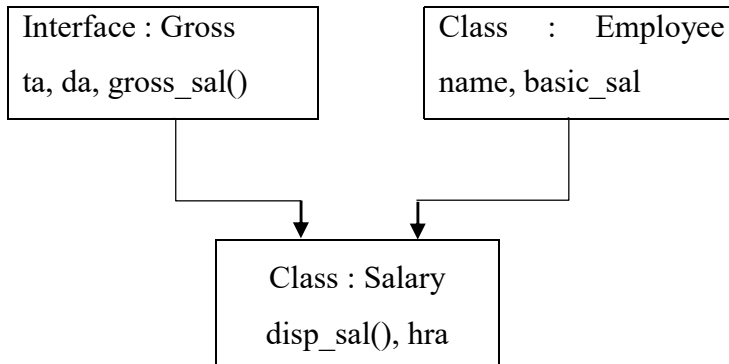
- (a) What is exception ? WAP to accept a password from the user and throw “Authentication Failure” exception if the password is incorrect.
- (b) Write a program to create two threads, one to print numbers in original order and other in reverse order from 1 to 10.
- (c) Explain the following methods of applet class :
 - (i) drawRect()
 - (ii) drawPolygon()
 - (iii) drawArc()
 - (iv) drawRoundRect()

P.T.O.

6. Attempt any FOUR of the following :

4 × 4 = 16

(a) Write a program to implement following inheritance :



- (b) What is use of ArrayList class ? State any two methods with their use from ArrayList.
- (c) Design an applet which accepts username as a parameter for html page and display number of characters from it.
- (d) List any four built-in packages from Java API along with their use.
- (e) Write a program to accept two numbers as command line arguments and print the addition of those numbers.
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