

Please check whether you have got the right question paper.

- N.B:
- All question are compulsory.
 - Figures to the right indicate full marks.
 - Students answering in the regional language should refer in case of doubt to the main text of the paper in English.

Q.1 Attempt any three of the following. 15

- a. What is Java? Explain its features.
- b. Write in detail about different types of operators in Java. Give examples for each.
- c. Explain Java architecture with its components.
- d. How main() method is written in Java? Give an example.
- e. What are Strings? List String Methods in Java.
- f. Write a program to calculate the area & perimeter of a rectangle.

Q.2 Attempt any three of the following. 15

- a. How If statement works in Java? Explain with a code.
- b. Explain Switch statement in Java with suitable example.
- c. What do you mean by method overloading? Write a program to illustrate.
- d. Write a program to find the factorial of a number using for loop.
- e. Explain Constructors in Java with its types.
- f. Write a short note on Access specifies in Java.

Q.3 Attempt any three of the following. 15

- a. What is Inheritance in java? Explain its types.
- b. Compare Classes with interfaces in Java.
- c. Write a short note on abstract classes in Java.
- d. Explain the following with example.
 - i) this keyword
 - ii) super keyword
- e. Write a short note on packages in Java.
- f. Write a Java program to implement multi-level inheritance.

Q.4 Attempt any three of the following.

15

- a. Explain Exception Handling in Java.
- b. What are threads? Explain Life cycle of Thread in Java with diagram.
- c. What is Array in Java? Explain its types.
- d. What is a Vector class? Explain its methods.
- e. What are the different ways to create thread in Java?
- f. Explain the Java input and output stream class.

Q.5 Attempt any three of the following.

15

- a. Write a short note on Delegation Event model in Java.
- b. Explain any five Event classes of Java.
- c. What is Layout manager in Java? Explain any two layouts in Java.
- d. Explain the following listener interfaces.
 - i) MouseListener ii) KeyListener
- e. What is the use of adapter class in Java? Explain any one of the adapter classes defined in Java.
- f. Write a brief note on: Button and Label.