

2019

OOPS USING JAVA

PAPER —3101

Full Marks : 70

Time : 3 hours

Answer **Q.No. 1** and any **five** from the rest

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

Illustrate the answers wherever necessary

1. Answer any *five* questions : 2 × 5
- (a) Write down any four features of Java Programming Language.
 - (b) What is bytecode ?
 - (c) What are System, out and println in the System.out.println() statement ?

- (d) What is the use of 'static' keyword in Java ?
- (e) What are different String functions in Java ?
- (f) What are break and continue statements in a loop ?
- (g) Explain the term polymorphism.
2. (a) How command line arguments are handled in Java ? Explain with an example.
- (b) Explain why Java is called a platform independent language.
- (c) Discuss the difference between iteration and recursion in Java. 6 + 3 + 3
3. (a) Why final keyword is used ? Explain the use of super keyword.
- (b) Discuss about polymorphism in Java using example.
- (c) Write down the differences between method overloading and method overriding ? (2 + 2) + 4 + 4

4. (a) Explain how to create and import a package. Give suitable examples.
- (b) What is an interface? Discuss how to implement multiple inheritance using interface using an example.
- (c) Explain abstract class with a suitable example. $(2 + 2) + 4 + 4$
5. (a) Discuss about the benefit of multi-threaded programming.
- (b) What is a thread? Explain different ways to create a thread in Java.
- (c) What is the difference between a process and a thread? Discuss about the important classes and interfaces used in multithreading in Java. $2 + (1 + 4) + (2 + 3)$
6. (a) What is the difference between an error and an exception? Discuss the purpose of using *try, catch block* in exception handling.

(b) How to use throw and throws keyword in exception handling ?

(c) With an example explain the use of finally block in exception handling. (2 + 4) + 3 + 3

7. (a) What is an applet ? Explain about the important functions used for an applet in Java.

(b) What is a stream ? What are the different types of streams used in Java ?

(c) What is a Layout manager ? Give an example of any Layout manager.

(1 + 4) + (1 + 2) + (2 + 2)

8. Write short notes on any *three* : 4 × 3

(i) Switch-case statement

(ii) Typecasting

(iii) Continue and break statement

(iv) AWT

(v) Event Handling.
