

[Total No. of Questions - 9] [Total No. of Printed Pages - 2]
(2124)

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MCA 2nd Semester Examination

Object Oriented & Visual Programming Using Java (NS)

MCA-202

Time : 3 Hours

Max. Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt five questions in all. Question no. 9 in section E is compulsory. Rest attempt one question each from the sections A, B, C & D.

SECTION - A

1. (a) Discuss the role of Java viz-a-viz Internet. (2)
- (b) What is JVM? Explain its role. (2)
- (c) Write a program in Java to accept a positive integer from the user and to print all the prime numbers which are less than that integer. (6)

OR

2. (a) What are constructors? Explain using suitable example. (2)
- (b) What is polymorphism? Discuss method overloading with the help of a suitable program. (8)

SECTION - B

3. (a) How is 'super' keyword used in a program in Java? (3)
- (b) What is the role of packages in Java? How can you create a package of your own? (4)

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- (c) Discuss the role of CLASSPATH.

(3)

OR

4. What is an Exception and how is it handled in Java? Give an example of 'Try and Catch'. Also discuss multiple 'catch' clauses and Nested 'try' statements with the help of suitable illustrations. (10)

SECTION - C

5. What is an Applet? Discuss the Applet architecture and its life cycle in detail. How are parameters passed to Applets? (10)

OR

6. Write notes on the following:

- (a) Inter-thread communication (ii) Dead locks (5×2=10)

SECTION - D

7. What are AWT controls? Discuss the role of layout Managers and Menus. (10)

OR

8. (a) Explain the Image observer interface. (5)
(b) What is double buffering? Why is it needed? (5)

SECTION - E

9. Explain the following:

- | | |
|-----------------------------|------------------------|
| (a) Byte Code | (b) Java class library |
| (c) String handling in Java | (d) Object |
| (e) Overriding | (f) Abstract classes |
| (g) Package | (h) Exception objects |
| (i) The Main Thread | (j) Label (2×10=20) |