

[Total No. of Questions - 9] [Total No. of Printed Pages - 3]
(2064)

14737

M. Tech 2nd Semester Examination
Object Oriented Programming with JAVA
MT-201

Time : 3 Hours

Max. Marks : 100

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 :** (i) Attempt any one question from each Section A, B, C, and D which carries 20 marks each.
(ii) Section E is compulsory which carries 20 marks.

SECTION - A

1. (a) What are unique advantages of an object oriented programming with Java paradigm? Explain in detail. (15)
(b) "Java is more secured than other languages" Is this statement true? Justify your answer. (5)

OR

2. (a) Write a program to find largest of three numbers using '?' operator. (5)
(b) The annual examination results of 100 students are tabulated as follows:

| Roll no. | Subject 1 | Subject 2 | Subject 3 |
|----------|-----------|-----------|-----------|
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[P.T.O.]

Write a program to read the data and determine the following:

- (i) Total marks obtained by each student.
- (ii) The highest marks in each subject and the Roll no. of the student who secured it.
- (iii) The student who obtained the highest total marks. (15)

SECTION - B

- 3. (a) Describe different forms of inheritance with examples. (10)
- (b) Compare and contrast overloading and overriding methods. (10)

OR

- 4. (a) What is an exception? Explain with an example. (10)
- (b) Define an exception called "No Match Exception" that is thrown when a string is not equal to "EXAMPLE". Write a program that uses this exception. (10)

SECTION - C

- 5. (a) What is an applet? Discuss the steps involved in developing and running a local applet. (10)
- (b) Describe the different stages in the life cycle of an applet. Distinguish between init() and start() methods. (10)

OR

- 6. (a) What is a thread? What is synchronization? When do we use it? Explain, (10)
- (b) Write a program to illustrate how to achieve synchronization in multithreading? (10)

SECTION - D

7. (a) Write a short note on working with colors and fonts. (10)
- (b) Write a program to draw alternate colored lines. (10)

OR

8. (a) What do you mean by layout managers? Explain in detail. (10)
- (b) Write a program to implement simple calculator using grid layout. (10)

SECTION - E

9. (a) Differentiate between method overloading and overriding.
- (b) Write a program in JAVA to arrange the city names in ascending order.
- (c) How event handling is done in JAVA? Explain in detail.
- (d) What is Abstract Window Toolkit (AWT)? Explain button AWT control.
- (e) When do we declare a method or class final? When do we declare a method or class abstract? Explain. (5×4=20)