CS/MCA (SUPPLE)/SEM-5/MCAE-503B/09
OBJECT ORIENTED PROGRAMMING WITH JAVA (SEMESTER - 5)

1. .....
Signature of Invigilator

2. .....
Signature of the Officer-in-Charge

Reg. No. | | | | | | | | | | | | | | |

Roll No. of the Candidate | | | | | | | | | | | | | | |

CS/MCA (SUPPLE)/SEM-5/MCAE-503B/09

ENGINEERING & MANAGEMENT EXAMINATIONS, AUGUST – 2009

OBJECT ORIENTED PROGRAMMING WITH JAVA (SEMESTER - 5)

Time : 3 Hours] [Full Marks : 70

INSTRUCTIONS TO THE CANDIDATES :

1. This Booklet is a Question-cum-Answer Booklet. The Booklet consists of **32 pages**. The questions of this concerned subject commence from Page No. 3.
2. a) In **Group – A**, Questions are of Multiple Choice type. You have to write the correct choice in the box provided **against each question**.
   b) For **Groups – B** & **C** you have to answer the questions in the space provided marked 'Answer Sheet'. Questions of **Group – B** are Short answer type. Questions of **Group – C** are Long answer type. Write on both sides of the paper.
3. **Fill in your Roll No. in the box** provided as in your Admit Card before answering the questions.
4. Read the instructions given inside carefully before answering.
5. You should not forget to write the corresponding question numbers while answering.
6. Do not write your name or put any special mark in the booklet that may disclose your identity, which will render you liable to disqualification. Any candidate found copying will be subject to Disciplinary Action under the relevant rules.
7. **Use of Mobile Phone and Programmable Calculator is totally prohibited in the examination hall.**
8. You should return the booklet to the invigilator at the end of the examination and should not take any page of this booklet with you outside the examination hall, **which will lead to disqualification**.
9. Rough work, if necessary is to be done in this booklet only and cross it through.

No additional sheets are to be used and no loose paper will be provided

---

FOR OFFICE USE / EVALUATION ONLY

Marks Obtained

	Group – A										Group – B			Group – C				
Question Number																	***Total Marks***	***Examiner's Signature***
Marks Obtained																		

.....
Head-Examiner/Co-Ordinator/Scrutineer

S-54037 (19/08)

DO NOT WRITE ON THIS PAGE

CS/MCA (SUPPLE)/SEM-5/MCAE-503B/09

OBJECT ORIENTED PROGRAMMING WITH JAVA

SEMESTER - 5

Time : 3 Hours] [Full Marks : 70

GROUP – A

(Multiple Choice Type Questions)

1. Choose the correct alternatives for any *ten* of the following : 10 × 1 = 10

i) int j;

for (int i = 0; i < 14; i ++) {

if (i < 10) {

j = 2 + i;

}

System.out.println ("j:" + j + " i: " + i);

}

What is illegal in the above code ?

a) Integer "j" is not initialized

b) Nothing

c) You cannot declare integer i inside the for-loop declaration

d) The syntax of the "if" statement is incorrect

e) You cannot print integer values without converting them to strings.

ii) Which one of the following is a valid declaration of an applet ?

a) Public class My Applet extends java.applet.Applet {

b) Public Applet My Applet {

c) Public class My Applet extends applet implements Runnable {

d) Abstract class My Applet extends java.applet.Applet {

e) Class My Applet implements Applet {

iii) What will be the output of the following line ?

System.out.println ("The full marks is : " + 17 + 3);

a) 20 b) 17 + 3

c) 173 d) 371

e) None of these.

iv) Which one of the following statements is FALSE ?

a) Java supports multi-threaded programming

b) Threads in a single program can have different priorities

c) Multiple threads can manipulate files and get user input at the same time

d) Two threads can never react on the same object at the same time

e) None of these.

v) What is the value of Y ?

int Y = 8/3

a) 1 b) 2.6666667

c) 3 d) 2

e) None of these.

vi) Which one of the following is the equivalent of main ( ) in a thread ?

a) start ( ) b) go ( )

c) run ( ) d) begin ( )

e) The class constructor.

vii) What does it mean if a method is final synchronized ?

a) Methods which are synchronized cannot be final

b) This is the same as declaring the method private

c) Only one synchronized method can be invoked at a time for the entire class

d) The method cannot be overridden and is always threadsafe

e) All final variables referenced in the method can be modified by only one thread at a time. ☐

viii) An interface can never be private or protected.

a) True b) False

c) Sometimes true d) Sometimes false

e) None of these. ☐

ix) Class implementing this interface should

a) necessarily be an abstract class

b) have the method public abstract void some Method ( );

c) have the method public void some Method ( ) which has to throw an exception which is a subclass of java.lang.Exception.

d) have the method public void some Method ( ) which need not throw an Exception

e) none of these. ☐

x) A ..... is a variable that may not be serialized.

a) Local variable b) Transient variable

c) Instance variable d) Class variable

e) None of these. ☐

xi) Inheritance can be prevented by the ..... keyword.

a) static b) super

c) final d) this

e) none of these.

xii) Interface should be declared as

a) Protected b) Public

c) Private d) Default

e) None of these.

GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following. 3 × 5 = 15

2. What is byte code ? How JVM helps to implement the platform independence nature ? 2 + 3

3. What is 'this' keyword ? What is Constructor ? What are the benefits of using constructor rather than functon ? 1 + 1 + 3

4. What is 'super' keyword ? Explain the implementation of super with a suitable example. 1 + 4

5. Explain the difference between throw and throws. What is chained exception ? Give an example. 1 + 2 + 2

6. a) Can you set priorities in a thread ? Explain.

b) What do you mean by synchronization ? 3 + 2

GROUP – C

(Long Answer Type Questions)

Answer any *three* questions. 3 × 15 = 45

7. What is method overriding ?

"Method overriding can be prevented in Inheritance". Justify with example. What is wrapper class ? 2 + 10 + 3

8. Explain the Applet Life Cycle.

"Applet class never declared as private". Why ?

Develop an Applet class that receives *n* number of values as input from the user and displays the maximum, minimum and average number. 4 + 4 + 7

9. Define the term Runnable Interface.

Why interface is implemented by all threads ?

Write a program to implement the deadlock situation using thread. 3 + 2 + 10

10. What is package ?

Explain the different types of package.

Design a package that contains the class Worker and another package to contain the interface Wages. Now write a program to display the details of worker along with their wages by using the above mentioned package and interface. 15

11. Write short notes any *three* of the following : 3 × 5

a) Inter-thread Communication

b) AWT

c) Abstract Class

d) Garbage Collection

e) Dynamic Method Dispatch.

END