

Unit-IV

8. What are AWT controls ? Show the diagrammatic representation of Java AWT Hierarchy. Explain its role in drawing of objects in Java. 16
9. Differentiate between the following : 8,8
- (i) GridLayout and GridBagLayout
  - (ii) Check boxes and Radio buttons

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Total No. of Questions : 9 ] [ Total No. of Pages : 4

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MCA 1st Semester (Regular)  
Examination, March-2022  
(MCA 2 Year Programme)  
(w.e.f. 2020-21)  
Paper-20MCA21C1  
**OBJECT ORIENTED PROGRAMMING  
USING JAVA**

Time : Three Hours ]

[ Maximum Marks : 80

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

*Note :- Attempt five questions in all, selecting one question from each Unit. Q. No. 1 is compulsory. All questions carry equal marks.*

1. Write short answers to the following questions :
- (a) What is Java's class ?
  - (b) Define Garbage.

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- (c) What is the use of package ?
- (d) Write syntax of an interface.
- (e) What is exception ?
- (f) Define a process w.r.t. Java ?
- (g) Why are frames used in Java ?
- (h) What do you understand by *font metrics* ?  
2×8=16

**Unit-I**

- 2. What is Java Program Structure ? Explain various access modifiers used in Java giving suitable examples. 16

- 3. (a) Describe any four string operations used in Java by taking examples and explaining the results.

- (b) What do you understand by String Buffer Class ? How is it different from usual strings ? Explain with examples. 8,8

**Unit-II**

- 4. (a) What is CLASSPATH ? Explain its role in execution of the Java programs. How is it set from command prompt and using interface ?

- (b) What is abstract class ? How is abstraction achieved in Java ? What is the purpose of using final modifier during class definitions ? 8,8

- 5. (a) What is Inheritance ? Explain different types of inheritance that is possible in Java by drawing its structures and write its syntax.

- (b) What are packages ? How many types of packages are there ? Explain how packages are added and their access protection is maintained in Java classes. 8,8

**Unit-III**

- 6. (a) What is Polling ? What are the problems associated with it ?

- (b) What are Applets ? Explain the applet life cycle. 8,8

- 7. What is a Thread ? Explain the relation between the main() method and the main thread. Explain the process of creating multiple threads and maintaining their synchronization. 16