BRAINWARE UNIVERSITY

Term End Examination 2023
Programme – MCA-2020/MCA-2021
Course Name – Object Oriented Programming Using Java
Course Code - MCA201
(Semester II)

Full Marks : 60   **Time : 2:30 Hours**
[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Multiple Choice Type Question)   1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Which of these keywords must be used to handle the exception thrown by try block in some rational manner?

a) try   b) finally
c) throw   d) catch

(ii) The process of compartmentalizing the elements of an abstraction that constitute its structure and behavior is called as-Choose the correct answer

a) Hierarchy   b) Encapsulation
c) Modularity   d) Entity Abstraction

(iii) Select the following mechanisms, types of all variables and expressions are fixed at compilation time

a) Strong Typing   b) Weak Typing
c) Static Binding / early binding   d) Dynamic Binding / late binding

(iv) Select the following mechanisms, types of all variables and expressions are not known until runtime

a) Strong Typing   b) Weak Typing
c) Static Binding / early binding   d) Dynamic Binding / late binding

(v) Which of these is superclass of WindowEvent class?

a) WindowEvent   b) ComponentEvent
c) ItemEvent   d) InputEvent

(vi) Which of the following keywords is used for throwing exception manually?

a) finally   b) try
c) throw   d) catch

(vii) Object oriented technology is built upon a sound engineering foundation, whose elements are collectively called as _____

   a) Von Neumann Model   b) Object Model

   c) Structured Model   d) Programming Model

(viii) Callback is an operation provided by _____-Choose the correct answer

   a) Inheritance   b) Encapsulation

   c) Modularity   d) Abstraction

(ix) Inheritance is an example of which type of hierarchy-Choose the correct answer

   a) Class Structure   b) Object Structure

   c) Class Structure and Object Structure   d) None of these

(x) Superclass represents _____ abstractions-Choose the correct answer

   a) Generalized abstractions   b) Specialization abstractions

   c) Generalized and Specialization abstractions   d) None of these

(xi) AnalyzeWhat is the lifecycle of a servlet?

   a) Servlet class is loaded   b) Servlet instance is created

   c) init,Service,destroy method is invoked   d) All mentioned above

(xii) Subclass represents _____ abstractions-Choose the correct answer

   a) Generalized abstractions   b) Specialization abstractions

   c) Generalized and Specialization abstractions   d) None of these

(xiii) Analyze Which HTTP Request method is non-idempotent?

   a) GET   b) POST

   c) BOTH A & B   d) None of the above

(xiv) Analyze Which class can handle any type of request so that it is protocol-independent?

   a) GenericServlet   b) HttpServlet

   c) Both A & B   d) None of the above

(xv) Analyze Which packages represent interfaces and classes for servlet API?

   a) javax.servlet   b) javax.servlet.http

   c) Both A & B   d) None of the above

Group-B
(Short Answer Type Questions)   3 x 5=15

2. Define the Class and Object? What is the relation between them?   (3)
3. Distinguish between procedural language and object oriented language?   (3)
4. What is MVC? Express the reasons why it is used.   (3)
5. Explain the MVC architecture   (3)
6. Explain the use of the following JSP tags action element. i) useBean ii)getProperty   (3)
    iii)setProperty

OR

Explinan the JNDI? What is the utility of JNDI?   (3)

Group-C
(Long Answer Type Questions)   5 x 6=30

7. How is the creation of a String using new() different from that of a literal?   (5)
8. How is the 'new' operator different from the 'newInstance()' operator in java?   (5)
9. Write a Java Program to print Fibonacci Series using Recursion.   (5)
10. Write a Java Program to find the factorial of a given number.   (5)

11. List the features of Java Programming language. (5)
12. Will the finally block be executed if the code System.exit(0) is written at the end of try block? (5)

OR

Assume a thread has a lock on it, calling the sleep() method on that thread will release the lock? (5)

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