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Reg. No. :

Code No. : 8383

Sub. Code : WCAM 23

M.C.A. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024.

Second Semester

Computer Applications – Core

ADVANCED JAVA PROGRAMMING

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. What is an event in Java?
 - (a) an action or occurrence to which a program can respond
 - (b) a Java class that handles exception
 - (c) a type of exception
 - (d) a datatype
2. Which package in Java contains classes for event handling?
 - (a) java.util
 - (b) java.swing
 - (c) java.awt.event
 - (d) java.io
3. Thread priority in Java is?
 - (a) Integer
 - (b) Float
 - (c) Double
 - (d) Long
4. What is Remote method invocation (RMI)?
 - (a) RMI allows us to invoke a method of java object that executes on another machine
 - (b) RMI allows us to invoke a method of java object that executes on another Thread in multithreaded programming
 - (c) RMI allows us to invoke a method of java object that executes parallelly in same machine
 - (d) RMI is an interface

5. Which of these methods are member of Remote class?
- (a) CheckIP()
 - (b) AddLocation()
 - (c) AddServer()
 - (d) Remote class does not define any methods
6. Which of these class is used for creating a client for a server-client operations?
- (a) ServerClient.java
 - (b) Client.java
 - (c) AddClient.java
 - (d) ServerClient.java
7. What are the major components of the JDBC?
- (a) DriverManager, Connection, Statement and ResultSet
 - (b) DriverManager, Driver, Connection, and Statement
 - (c) DriverManager, Statement, and ResultSet
 - (d) DriverManager, Driver, Connection, Statement, and ResultSet

8. What is the correct sequence to create a database connection?
- (i) Import JDBC packages.
 - (ii) Open a connection to the database.
 - (iii) Load and register the JDBC driver.
 - (iv) Execute the statement object and return a query resultset.
 - (v) Create a statement object to perform a query.
 - (vi) Close the resultset and statement objects.
 - (vii) Process the resultset.
 - (viii) Close the connection.
- (a) (i), (ii), (iii), (v), (iv), (vii), (viii), (vi)
 - (b) (i), (iii), (ii), (v), (iv), (vii), (vi), (viii)
 - (c) (ii), (i), (iii), (iv), (viii), (vii), (v), (vi)
 - (d) (i), (iii), (ii), (iv), (v), (vi), (vii), (viii)
9. Which of the following method is static and synchronized in JDBC API?
- (a) getConnection()
 - (b) prepareCall()
 - (c) executeUpdate()
 - (d) executeQuery()

10. How can a constructor be used for a servlet?

- (a) Initialization
- (b) Constructor function
- (c) Initialization and Constructor function
- (d) Setup() method

11. Which of the following code is used to get an attribute in a HTTP Session object in servlets?

- (a) session.getAttribute(String name)
- (b) session.alterAttribute(String name)
- (c) session.updateAttribute(String name)
- (d) session.setAttribute(String name)

12. Which of the following code retrieves the body of the request as binary data?

- (a) `DataInputStream data = new InputStream()`
- (b) `DataInputStream data = response.getInputStream()`
- (c) `DataInPutStream data = request.getInputStream()`
- (d) `DataInPutStream data = request.fetchInputStream()`

13. Which of the following architecture uses the Swing framework?

- (a) MVC
- (b) MVP
- (c) Layered architecture
- (d) Master-Slave architecture

14. A _____ is the basic class for all SWING UI components.

- (a) Container
- (b) JComponent
- (c) Component
- (d) JLabel

15. The expansion of JAR is _____.

- (a) Java Action
- (b) Java Architecture
- (c) Java Runtime
- (d) Java Archive

PART B — (5 × 4 = 20 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

16. (a) Categorize the media techniques of Java programming.

Or

(b) Enumerate the required packages and classes for networking in Java.

17. (a) Compare stub and skeleton in RMI.
Or
(b) How will you activate the remote objects in RMI?
18. (a) Categorize the JDBC API and drivers.
Or
(b) Enumerate the multimedia databases supported by Java.
19. (a) Compare Java Servlet and JSP.
Or
(b) Examine the need of JSP tags.
20. (a) How will you create a label and button using Java Swing?
Or
(b) Evaluate the concept of internationalization in Java.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 600 words.

21. (a) Explain the event handling mechanism of Java.
Or
(b) How will you use Threads in Java? Explain with its life cycle.

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22. (a) Demonstrate the architecture of distributed application architecture.

Or

- (b) How will you extend the usage of Java Spaces technology in distributed environment?

23. (a) How will you create a JDBC connection using Java? Explain.

Or

- (b) Enumerate the statements of JDBC.

24. (a) Describe the anatomy of a Java Servlet.

Or

- (b) Enumerate the components of JSP.

25. (a) Summarize the steps to create a JAR file from your Java source programs.

Or

- (b) Demonstrate the various components of Java Swing.

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