



MCQ Based Internal Exams [\(J2EE & AI\)](#).

1. In a typical Three-Tier J2EE architecture, the business logic is handled by
:- Application Server (like Tomcat).
2. Which JDBC driver type is known as the "Native-API, partly Java driver"?
:- Type 2 (Native-API)
3. Which JDBC interface is preferred for executing a parameterized SQL query multiple times for better performance?
:- PreparedStatement
4. Which method is called only once in the life cycle of a Servlet?
:- init()
5. Which session tracking technique uses the HttpSession interface?
:- Session API
6. What is the primary difference between a Servlet and a JSP?
:- JSP is a text-based document that helps create dynamic web pages, while Servlets are Java classes.
7. Which JSP directive is used to import a Java class into the JSP page?
:- <%@ page ... %>
8. Which JSP implicit object is of type HttpServletResponse?
:- response
9. Which JSP standard action is used to forward the request to another resource?
:- <jsp:forward>
10. In JSP, which scope makes an object available to any JSP page serving the same application?
:- application
11. Which type of Enterprise JavaBean (EJB) is used to represent persistent data stored in a database?
:- Entity Bean
12. In the MVC architecture, which component is responsible for processing user input and controlling the flow?
:- Controller
13. What is the main advantage of using Hibernate?
:- It handles object-relational mapping (ORM), allowing developers to work with objects instead of SQL.
14. In Hibernate, which file is used to configure the database connection and other properties?
:- hibernate.cfg.xml
15. Hibernate Query Language (HQL) works with
:- Persistent objects and their properties

Many More.

UNIT 1: Introduction to J2EE and JDBC

1. J2EE stands for:
 - a) Java 2 Enterprise Edition 
 - b) Java Enterprise Execution
 - c) Java 2 Extra Edition
 - d) Java Execution Environment
2. J2EE was developed by:
 - a) Oracle
 - b) Sun Microsystems 
 - c) IBM
 - d) Microsoft

3. Which of the following is a goal of J2EE?
 - a) Build desktop apps
 - b) Build scalable enterprise apps ☒
 - c) Build games
 - d) Create hardware drivers
4. Which architecture is most common in J2EE applications?
 - a) Two-tier
 - b) Three-tier ☒
 - c) Four-tier
 - d) Client-only
5. Tomcat is an example of a:
 - a) Database
 - b) Web Container ☒
 - c) Compiler
 - d) IDE
6. Which is NOT a J2EE API?
 - a) JSP
 - b) EJB
 - c) JDBC
 - d) AWT ☒
7. Which of these allows Java to interact with a database?
 - a) JNDI
 - b) JDBC ☒
 - c) JMS
 - d) JSF
8. JDBC full form is:
 - a) Java Database Connectivity ☒
 - b) Java Database Connector
 - c) Java Data Creator
 - d) Java Data Control
9. The fastest JDBC driver is:
 - a) Type 1
 - b) Type 2
 - c) Type 3
 - d) Type 4 ☒
10. Which interface executes SQL queries?
 - a) Connection
 - b) Statement ☒
 - c) ResultSet
 - d) DriverManager
11. Which JDBC interface is used to call stored procedures?
 - a) Statement
 - b) PreparedStatement
 - c) CallableStatement ☒
 - d) ResultSet
12. Which JDBC interface represents query result data?
 - a) ResultSet ☒
 - b) Connection
 - c) Statement
 - d) DriverManager
13. Which layer of JDBC architecture interacts directly with the database?
 - a) JDBC API
 - b) Driver Layer ☒
 - c) Application Layer
 - d) None

14. What does CRUD stand for?
- a) Create, Read, Update, Delete ✓
 - b) Code, Run, Update, Debug
 - c) Create, Run, Undo, Delete
 - d) None
15. JDBC driver manager belongs to which package?
- a) java.sql ✓
 - b) javax.sql
 - c) java.jdbc
 - d) javax.jdbc
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UNIT 2: Servlet

16. Servlet is a:
- a) Client-side script
 - b) Server-side program ✓
 - c) Database tool
 - d) Web browser
17. Servlet technology was introduced by:
- a) Microsoft
 - b) Oracle
 - c) Sun Microsystems ✓
 - d) Apache
18. Servlet runs inside:
- a) Web container ✓
 - b) Browser
 - c) Database
 - d) IDE
19. Which package is needed for servlets?
- a) javax.servlet ✓
 - b) java.servlet
 - c) servlet.http
 - d) http.servlet
20. Servlet life cycle includes:
- a) start(), run(), stop()
 - b) init(), service(), destroy() ✓
 - c) create(), process(), end()
 - d) begin(), run(), finish()
21. Which method is called only once in the Servlet life cycle?
- a) service()
 - b) init() ✓
 - c) destroy()
 - d) doGet()
22. Which method handles HTTP GET requests?
- a) doPost()
 - b) doGet() ✓
 - c) service()
 - d) getService()
23. Servlet mappings are defined in:
- a) web.xml ✓
 - b) app.config
 - c) servlet.java
 - d) context.xml

24. Which of these is NOT a session tracking method?

- a) URL Rewriting
- b) Cookies
- c) Hidden Form Fields
- d) Database Connection ☒

25. What is used to deploy servlets?

- a) Servlet Manager
- b) Web Container ☒
- c) Java Compiler
- d) Database Server

UNIT 3: JSP (Java Server Pages)

26. JSP stands for:

- a) Java Server Page ☒
- b) Java Script Page
- c) Java Servlet Program
- d) Java Service Page

27. JSP is:

- a) Server-side technology ☒
- b) Client-side language
- c) Database
- d) IDE

28. JSP is translated into a:

- a) Servlet ☒
- b) Applet
- c) HTML File
- d) XML File

29. Which element is used for declarations in JSP?

- a) `<%! %>` ☒
- b) `<%= %>`
- c) `<% %>`
- d) `<jsp:declare>`

30. Which element prints output in JSP?

- a) `<%! %>`
- b) `<%= %>` ☒
- c) `<% %>`
- d) `<jsp:output>`

31. JSP Implicit Object that handles session data is:

- a) request
- b) response
- c) session ☒
- d) config

32. The file extension for JSP files is:

- a) .java
- b) .html
- c) .jsp ☒
- d) .xml

33. JSP Directive tag syntax:

- a) `<%@ ... %>` ✓
- b) `<%= ... %>`
- c) `<% ... %>`
- d) `<jsp:directive>`

34. Which tag is used to include another JSP page?

- a) `<jsp:forward>`
- b) `<jsp:include>` ✓
- c) `<jsp:param>`
- d) `<jsp:tag>`

35. JSP was introduced to simplify:

- a) Client-side scripting
- b) Server-side HTML generation ✓
- c) Database operations
- d) File management

UNIT 4: EJB, MVC, Hibernate

36. EJB stands for:

- a) Enterprise Java Bean ✓
- b) Embedded Java Base
- c) Enterprise Java Base
- d) Extended Java Bean

37. EJB is used for:

- a) Web design
- b) Business logic ✓
- c) GUI
- d) File handling

38. Types of EJB are:

- a) Session, Entity, Message-driven ✓
- b) Session, Static, Remote
- c) Bean, Entity, Connection
- d) None

39. MVC stands for:

- a) Model View Controller ✓
- b) Main View Connector
- c) Managed View Component
- d) Module View Class

40. In MVC, JSP is the:

- a) Model
- b) View ✓
- c) Controller
- d) Entity

41. Hibernate is a:

- a) Database
- b) ORM Framework ✓
- c) IDE
- d) Server

42. ORM means:
- a) Object Relational Mapping ✓
 - b) Object Rendering Model
 - c) Oriented Resource Mapping
 - d) Object Read Module
43. Hibernate configuration file is:
- a) config.xml
 - b) hibernate.cfg.xml ✓
 - c) db.cfg.xml
 - d) jdbc.cfg.xml
44. Hibernate query language is:
- a) SQL
 - b) HQL ✓
 - c) MySQL
 - d) JavaQL
45. Annotation for primary key in Hibernate:
- a) @Primary
 - b) @Key
 - c) @Id ✓
 - d) @Column

Full Forms :

- 46. **J2EE** : Java 2 Platform, Enterprise Edition
- 47. **JDBC** : Java Database Connectivity
- 48. **EJB** : Enterprise JavaBeans
- 49. **JSP** : JavaServer Pages
- 50. **JMS** : Java Message Service
- 51. **JSF** : Java Server Faces
- 52. **JNDI** : Java Naming and Directory Interface
- 53. **RMI** : Remote Method Invocation
- 54. **JTA** : Java Transaction API
- 55. **ODBC** : Open Database Connectivity
- 56. **DSN** : Data Source Name
- 57. **EIS** : Enterprise Information Systems
- 58. **API** : Application Programming Interface
- 59. **MIME** : Multipurpose Internet Mail Extensions
- 60. **HTTP** : Hypertext Transfer Protocol
- 61. **SQL** : Structured Query Language
- 62. **CLI** : Call Level Interface
- 63. **DLL** : Dynamic Link Library
- 64. **CGI** : Common Gateway Interface
- 65. **URI** : Uniform Resource Identifier
- 66. **URL** : Uniform Resource Locator
- 67. **URN** : Uniform Resource Name
- 68. **HTTP** : Hypertext Transfer Protocol
- 69. **HTML** : Hypertext Markup Language
- 70. **JSP** : JavaServer Pages
- 71. **MIME** : Multipurpose Internet Mail Extensions
- 72. **JSP** : JavaServer Pages
- 73. **MVC** : Model-View-Controller
- 74. **HTML** : Hypertext Markup Language
- 75. **XML** : Extensible Markup Language
- 76. **ASP** : Active Server Pages

- 77. **SSI : Server-Side Includes**
- 78. **WML : Wireless Markup Language**
- 79. **SVG : Scalable Vector Graphics**
- 80. **MIME : Multipurpose Internet Mail Extensions**
- 81. **TLD : Tag Library Descriptor**
- 82. **JSTL : JavaServer Pages Standard Tag Library**
- 83. **EL : Expression Language**
- 84. **EJB : Enterprise Java Beans**
- 85. **ORM: Object-Relational Mapping**
- 86. **HQL : Hibernate Query Language**
- 87. **JTA : Java Transaction API**
- 88. **JNDI : Java Naming and Directory Interface**
- 89. **JDBC : Java Database Connectivity**
- 90. **JMS : Java Message Service**
- 91. **MDB : Message Driven Bean**
- 92. **BMP : Bean Managed Persistence**
- 93. **CMP : Container Managed Persistence**
- 94. **JPA : Java Persistence API**
- 95. **POJO : Plain Old Java Object**
- 96. **XML : Extensible Markup Language**
- 97. **MVC : Model-View-Controller**
- 98. **EJB : Enterprise JavaBeans**
- 99. **JSP : JavaServer Pages**
- 100. **WORA : Write Once Run Anywhere**
- 101. **COM : Component Object Model**
- 102. **RMI : Remote Method Invocation**
- 103. **JNDI : Java Naming and Directory Interface**
- 104. **JMS : Java Message Service**
- 105. **MDB : Message-Driven Bean**

(AI)

(UNIT – 1)

- 1. Who is known as the “Father of Artificial Intelligence”?
 - a) Alan Turing
 - b) John McCarthy ☒
 - c) Marvin Minsky
 - d) Herbert Simon
- 2. What does AI mainly deal with?
 - a) Programming computers
 - b) Making machines intelligent ☒
 - c) Calculations
 - d) Data storage
- 3. Which of the following is not a branch of AI?
 - a) Robotics
 - b) Machine Learning
 - c) Database Management ☒
 - d) Natural Language Processing
- 4. The Turing Test is used to measure:
 - a) Speed of computation
 - b) Intelligence of a machine ☒
 - c) Memory capacity

d) Accuracy of data

5. AI was first introduced as a concept in which year?

- a) 1945
- b) 1956 ☒
- c) 1975
- d) 1990

6. Which of the following is an example of Narrow AI?

- a) ChatGPT ☒
- b) Self-aware robot
- c) Human brain
- d) Conscious system

7. An AI system that can perform all intellectual tasks of a human is called:

- a) Weak AI
- b) Narrow AI
- c) General AI ☒
- d) Applied AI

8. Which of the following is used in speech recognition?

- a) Deep Learning ☒
- b) Expert Systems
- c) Data Mining
- d) None of these

9. Which of the following is a characteristic of AI?

- a) Adaptability ☒
- b) Laziness
- c) Irregularity
- d) Uncertainty

10. Expert Systems work based on:

- a) Data-driven learning
- b) Rule-based reasoning ☒
- c) Neural networks
- d) Pattern recognition

11. Which AI approach is inspired by the human brain?

- a) Genetic Algorithm
- b) Neural Network ☒
- c) Fuzzy Logic
- d) Heuristic Search

11. The "AI Winter" refers to:

- a) Time when AI projects succeeded
- b) Time when AI funding decreased ☒
- c) Time when robots dominated
- d) None of these

12. Which of the following is NOT a type of machine learning?

- a) Supervised
- b) Unsupervised
- c) Reinforced
- d) Parallel ☒

13. Which of the following is an AI language?

- a) LISP ☒
- b) BASIC
- c) C++

d) SQL

14. The ability of AI to make its own decisions is known as:
- a) Autonomy ✓
 - b) Automation
 - c) Compilation
 - d) Execution

(UNIT – 2)

1. What is the main purpose of Computer Vision?
 - a) To make machines read text
 - b) To make machines see and understand images ✓
 - c) To calculate numbers
 - d) To store data
2. Which of the following is NOT a step in image processing?
 - a) Edge Detection
 - b) Feature Extraction
 - c) Data Encryption ✓
 - d) Image Segmentation
3. Which library is most commonly used for computer vision?
 - a) OpenCV ✓
 - b) NumPy
 - c) Pandas
 - d) Matplotlib
4. Which of the following is used to remove noise from an image?
 - a) Edge detection
 - b) Image preprocessing ✓
 - c) Pattern recognition
 - d) Image segmentation
5. What does "Feature Extraction" mean?
 - a) Finding hidden data
 - b) Identifying key visual elements ✓
 - c) Cropping images
 - d) Saving images
6. Which algorithm is commonly used for edge detection?
 - a) K-Means
 - b) Sobel ✓
 - c) Apriori
 - d) PageRank
7. Object detection in an image is part of:
 - a) Feature extraction
 - b) Image segmentation ✓
 - c) Preprocessing
 - d) Image acquisition
8. What is a potential risk in using computer vision for surveillance?
 - a) Low-quality images
 - b) Privacy violation ✓
 - c) High resolution
 - d) Reduced storage
9. Which of the following fields uses CV for quality control?
 - a) Agriculture

- b) Manufacturing ☒
- c) Education
- d) Healthcare

10. Deep learning models for image recognition use:

- a) Decision Trees
- b) Convolutional Neural Networks (CNN) ☒
- c) Genetic Algorithms
- d) Fuzzy Logic

11. Which of the following is a function of OpenCV?

- a) Image enhancement
- b) Video processing
- c) Object detection
- d) All of the above ☒

12. Which of these CV tools is developed by Google?

- a) TensorFlow ☒
- b) PyTorch
- c) OpenCV
- d) Theano

13. What does CNN stand for in AI?

- a) Convolutional Neural Network ☒
- b) Central Neural Node
- c) Complex Network Neurons
- d) Computational Neural Nucleus

14. The process of dividing an image into parts is known as:

- a) Extraction
- b) Segmentation ☒
- c) Isolation
- d) Detection

15. Which of the following is NOT an ethical concern in CV?

- a) Bias
- b) Privacy
- c) High accuracy ☒
- d) Misuse

(UNIT – 3)

1. Generative AI is used to:

- a) Analyze data only
- b) Create new content ☒
- c) Store data
- d) Encrypt files

2. AI + IoT integration is used for:

- a) Data collection and analysis ☒
- b) Making robots stationary
- c) Programming games
- d) None of the above

3. Which of these is an AI application in robotics?

- a) Surgery assistance ☒
- b) Printing documents
- c) Video streaming
- d) Text editing

4. Reinforcement learning involves:
- a) Trial and error with rewards ☒
 - b) Manual coding
 - c) Rule-based system only
 - d) None of these
5. Explainable AI (XAI) ensures:
- a) AI works faster
 - b) AI decisions are understandable by humans ☒
 - c) AI uses less memory
 - d) AI creates music
6. One major concern of AI adoption in workforce is:
- a) Faster processing
 - b) Job displacement ☒
 - c) Better efficiency
 - d) Data storage
7. Future AI research focuses on:
- a) Only robotics
 - b) Only IoT
 - c) Human-AI collaboration ☒
 - d) Only natural language
8. Which AI technology can help predict climate changes?
- a) Machine Learning ☒
 - b) Web Development
 - c) Database Management
 - d) Computer Networking
8. AI in IoT devices mainly focuses on:
- a) Data storage
 - b) Data analysis and decision-making ☒
 - c) Hardware repair
 - d) Manual programming
9. Which of the following is NOT an emerging AI trend?
- a) Generative AI
 - b) Explainable AI
 - c) Cloud AI
 - d) Legacy AI ☒
10. Human-AI collaboration refers to:
- a) AI replacing humans completely
 - b) AI assisting humans in tasks ☒
 - c) Humans teaching AI only
 - d) AI storing human data
11. Ethical AI aims to:
- a) Reduce cost
 - b) Ensure fairness, accountability, and transparency ☒
 - c) Replace humans
 - d) Increase energy consumption