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Third Semester MCA Degree Examination, Jan./Feb. 2023 Advances in Java

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Define Servlet. Explain life cycle of a Servlet with a neat diagram. (10 Marks)
b. Define Cookies. Write a JAVA Servlet program using Cookies to remember user preferences. (10 Marks)

OR

- 2 a. Explain 4 different ways in which a session can be tracked with suitable examples. (10 Marks)
b. Briefly explain any 5 HTTP status codes during server responses. (05 Marks)
c. Explain HTTP Request headers in brief. (05 Marks)

Module-2

- 3 a. Explain different kinds of main tags used in JSP with example for each. (10 Marks)
b. Explain different ways in which you can invoke JAVA code from JSP. (10 Marks)

OR

- 4 a. Explain the need, benefits and advantages of JSP over competing technologies. (10 Marks)
b. Write a JSP program that adds two numbers entered through HTML form and display the result (10 Marks)

Module-3

- 5 a. List all the attributes of Page directives tags in JSP and explain any five with an example for each. (10 Marks)
b. Write a JSP program to get student information through HTML form. Create a JAVA Bean class, populate Bean and display the same information through another JSP. (10 Marks)

OR

- 6 a. Define JAVA Bean and state its advantages. Explain the features of JAVA Bean. (08 Marks)
b. Write a note on JAR files. (06 Marks)
c. Write a JSP program to include an applet along with necessary applet code. (06 Marks)

Module-4

- 7 a. With an example, explain the essential steps of JDBC program. (10 Marks)
b. Explain in brief basic and advanced JDBC data types. (10 Marks)

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

OR

- 8 a. What are annotations? Discuss built-in annotations with an example. (10 Marks)
b. Explain the types of statements objects in JDBC with an example. (10 Marks)

Module-5

- 9 a. Explain the following terms of container services in EJB:
(i) Transactions
(ii) Security.
(iii) Naming and Object stores (10 Marks)
b. What is stateless session bean? Explain the life cycle of stateless session bean with a neat diagram. (10 Marks)

OR

- 10 a. What is message driven bean? Explain the life cycle of message driven bean. (10 Marks)
b. Write short notes on :
(i) Stateful session bean.
(ii) Singleton session bean. (10 Marks)
