

--	--	--	--	--	--	--	--	--	--

Fourth Semester MCA Degree Examination, Dec.2019/Jan.2020

## Advanced Java Programming

Time: 3 hrs.

Max. Marks: 80

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

### Module-1

- 1 a. Define servlet. Explain process of servlet life cycle. (08 Marks)  
b. Briefly explain HTTP status codes. (08 Marks)

OR

- 2 a. Briefly explain the different types of HTTP request headers. (06 Marks)  
b. What are cookies? With an example, explain how to use cookies to remember user preferences. (10 Marks)

### Module-2

- 3 a. Explain the needs, benefits and advantages of JSP. (08 Marks)  
b. Explain the different types of JSP elements, with an example. (08 Marks)

OR

- 4 a. List all the attributes of page directives and explain any five with an example. (10 Marks)  
b. Write a JSP program to print 10 even and 10 odd numbers. (06 Marks)

### Module-3

- 5 a. What is Java bean? What are the key concepts of Java bean? List out the advantages of Java bean. (08 Marks)  
b. With an example, explain how to add color property to simple bean. (08 Marks)

OR

- 6 a. Explain the steps to create a Java bean with an example. (08 Marks)  
b. Write a Java JSP program to get student information through a HTML and create a Java bean class, populate bean and display the same information through another JSP. (08 Marks)

### Module-4

- 7 a. With an example, explain essential steps in JDBC. (08 Marks)  
b. With diagram, explain different JDBC drivers. (08 Marks)

OR

- 8 a. Explain prepared statement object with an example. (08 Marks)  
b. Briefly explain basic and advanced JDBC data types. (08 Marks)

### Module-5

- 9 a. Write a brief note on:  
(i) Session beans  
(ii) Entity beans. (08 Marks)  
b. With a neat diagram, explain the states of Life Cycle of a stateless session beans. (08 Marks)

OR

- 10 a. Explain transactions, security and timer specification of container services in EJB. (08 Marks)  
b. Describe the important roles of Java message service in message driven beans. (08 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 e.g. 42+8 = 50, will be treated as malpractice.