

U.G. 5th Semester Examination - 2020

COMPUTER SCIENCE

[HONOURS]

Course Code : COM.SC-H-CC-L-512

(Internet Technologies)

Full Marks : 60

Time : $2\frac{1}{2}$ Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

1. Answer any **ten** questions: $2 \times 10 = 20$
- a) What is byte code?
 - b) Why java is called platform independent?
 - c) What is the difference between “==” and “===” in java script?
 - d) What is the difference between named and anonymous function in java script?
 - e) What is JSP?
 - f) How comments can be added to a JSP program?
 - g) How can you implement a thread-safe JSP page?
 - h) How can you forward the request from JSP page to servlet?

[Turn over]

- i) What are the different scope values for the <jsp:useBean> tag?
 - j) What is the difference in using request.getRequestDispatcher() and context.getRequestDispatcher()?
 - k) What are the primary differences between the JSP custom tags and java beans?
 - l) What is the basic difference between executeQuery() and executeUpdate()?
 - m) How can you register the driver class for using database connectivity in java?
 - n) How to remove duplicates from ArrayList in Java?
 - o) What are the difference between an array and an ArrayList in Java?
2. Answer any **four** questions: $5 \times 4 = 20$
- a) What is the way to get subList from an ArrayList? How to sort ArrayList in descending order in Java? What is Array Index Out Of Bound Exception in Java? How can you create a multidimensional array of size $M \times N$?

$2+1+1+1$

- b) In JavaScript, if you want to return the character from a specific index which method you are going to use? How to use external JavaScript file? Is JavaScript case-sensitive language? What is the use of history object? 1+1+1+2
- c) Describe at least six action tags used in JSP. How can you prevent the output of my JSP or Servlet pages from being cached by the browser? 3+2
- d) How JSP can be used in MVC Model? What is the use of Session object? 4+1
- e) What are the steps involved in executing database queries with java? How the connection is closed after execution of queries? 4+1
- f) Explain all the JSP implicit objects. 5

3. Answer any **two** questions: 10×2=20

- a) Explain different ways to include result of another page using JSP. How can you forward the request from JSP pages to servlet? What are the different literals available in JSP? 4+4+2
- b) How to add and remove elements in an ArrayList? How to remove duplicate elements from an ArrayList? What are the differences

between Vector and ArrayList? Design a java method to find the second maximum and second minimum from an array of integers.

2+2+2+4

- c) Explain all JDBC API components (Interfaces and Classes). What are Prepared Statement and Callable Statement? 7+3
- d) How to write comments in JavaScript? How can you create JavaScript functions? Explain different primitive and non-primitive data types available in JavaScript. How can you create an object in JavaScript? Give an example.

2+2+4+2
