## 2021

## COMPUTER SCIENCE - HONOURS

Paper: DSE-B-4
(Advance Java)
Full Marks : 50
The figures in the margin indicate full marks.
Candidates are required to give their answers in their own words as far as practicable.

Answer question no. 1 and any four from the rest.

1. Answer any five questions:
(a) Differentiate between servlets and applets.
(b) Is it possible to include the results of another page in jsp?
(c) How can you create Custom Tags in JSP? Show with an example.
(d) What are the different data types present in javascript?
(e) Discuss the NaN property in javascript.
(f) Explain the use of $\operatorname{css}()$ method in jQuery.
(g) Discuss about the functionalities of Spring IOC container.
(h) Discuss about the functionalities of JVM.
2. (a) Explain life cycle of servlet.
(b) Discuss getcharacterencoding() and setcharacterencoding() methods.
(c) Write the differences between httpservlet and genericservlet.
3. (a) Explain jsp life cycle.
(b) Write the advantages of using jsp.
(c) Discuss different jsp scripting elements.
4. (a) What is javascript?
(b) Show how javascript handles onclick(), onmouseover() and onload() events with example.
(c) Discuss how to do client side validation using javascript.
5. (a) What is jquery?
(b) Show the steps of form validation using jQuery with an example.
(c) Explain application server services of jQuery.
(d) Give an example using jQuery.length.
6. (a) What is a session?
(b) Show how a session is created.
(c) What are the session information passing mechanisms between client and server?
(d) How to destroy a session?
7. (a) What are the advantages of spring framework?
(b) Explain spring MVC framework.
(c) Discuss the spring jdbc packages.
8. Write short notes on any two of the following:
(a) Servlet collaboration
(b) Exception handling in jsp.
(c) Spring AOP
(d) Spring ORM framework.
