



## BRAINWARE UNIVERSITY

### Term End Examination 2018 - 19

Programme – Bachelor of Science (Honours) in Computer Science

Course Name - Advanced Java

Course Code - BCS 502A

(Semester – 5)

Time allotted: 3 Hours

Full Marks 70

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

### Group –A

(Multiple Choice Type Question)

10 x 1 = 10

1. Choose the correct alternative from the following

(i) In MVC architecture, 'view' component is basically

- a. HTML
- b. JSPs
- c. EJB
- d. Java Beans

(ii) Applet is an example of \_\_\_\_\_ webpage.

- a. Static webpage
- b. Active webpage
- c. Dynamic webpage
- d. None of these

(iii) Superclass of HTTP Servlet is

- a. Servlet
- b. JSP
- c. Generic Servlet
- d. Cookie

(iv) Which of the following tools is used to generate the stubs and skeletons for a remote service?

- a. java
- b. rmiregistry
- c. javac
- d. rmic

- (v) Given a JSP page with the line: `$ {101 % 10}`; The output is
- a. 1
  - b. 10
  - c. 1001
  - d. 101 % 10
- (vi) Which HTTP methods are used to show the client what the server is receiving?
- a. Get
  - b. Return
  - c. Trace
  - d. Options
- (vii) Which type of objects can store attribute?
- a. HttpServletRequest
  - b. ServletConfig
  - c. ServletResponse
  - d. RequestDispatcher
- (viii) Which deployment descriptor elements may appear before the `< web-app >` element?
- a. `< listener >`
  - b. `< context-param >`
  - c. `< servlet >`
  - d. No XML element may appear before the `< web-app >` element.
- (ix) JSP tags are interpreted by
- a. JSP compiler
  - b. JSP debugger
  - c. JSP engine
  - d. JSP container
- (x) \_\_\_\_\_ are compiled into \_\_\_\_\_
- e. Servlets, JSP
  - f. ASP, JSP
  - g. JSP, ASP
  - h. JSP, Servlets

### Group – B

(Short Answer Type Questions)

3 x 5 = 15

Answer any *three* from the following

2. (a) What do you mean by J2EE? 2
- (b) Explain the different J2EE services. 3
3. (a) Why do we need dynamic webpage and active webpage? 3
- (b) What are the disadvantages of static webpage? 2
4. How insert data in a particular table in JDBC programming? Explain with a proper Java program. 5
5. Explain MVC architecture relating to J2EE with figure. 5
6. Compare between 3-tire and n-tire architectures. 5

**Group – C**

(Long Answer Type Questions)

3 x 15 = 45

Answer any *three* from the following

- |     |     |  |     |
|-----|-----|--|-----|
| 7.  | (a) | What do you mean by collection framework in java?  | 2   |
|     | (b) | How 'LinkedList' class is used to store data? Explain with proper java code.                               | 5   |
|     | (c) | How 'HashMap' class enhance data access strategy over 'LinkedList' class? Explain with proper example.     | 6   |
|     | (d) | What is the utility of 'StringTokenize' class?   | 2   |
| 8.  | (a) | What is the goal of Collection Framework property?   | 2   |
|     | (b) | Explain the different collection Interfaces.   | 4   |
|     | (c) | What is features in "ArrayList" class?   | 3   |
|     | (d) | Write a Java program to store various data in 'arraylist' and traverse it.                                 | 6   |
| 9.  | (a) | What is RMI?   | 3   |
|     | (b) | What are the differences between RMI and CORBA?  | 2   |
|     | (c) | How the various steps are maintained to handle a remote object through RMI? Explain with proper java code. | 10  |
| 10. | (a) | What are ear, war and jar files?   | 3   |
|     | (b) | What are J2EE Deployment Descriptors?  | 2   |
|     | (c) | Explain RMI architecture with suitable diagram.  | 8   |
|     | (d) | What is the difference between RMI and RPC?  | 2   |
| 11. |     | Write a short note of any three of the following.  | 3x5 |
|     | (a) | ODBC   |     |
|     | (b) | RMI Registry   |     |
|     | (c) | User Define List in Collection Framework   |     |
|     | (d) | Result Set in java.sql package   |     |
|     | (e) | Client-Server architecture   |     |

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