Exam. Code : 107205
Subject Code : 100281

Bachelor of Computer Application (BCA) 5th Semester

(Batch 2022-25)

JAVA PROGRAMMING LANGUAGE

Paper—IV

Time Allowed—3 Hours] [Maximum Marks—75

Note :— Attempt **FIVE** questions in all, selecting at least **ONE** question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. Compare the features of Java with any other Object-Oriented programming language.

2. What is Immutable String ? How can you tokenize a given string ? Which are various methods of String Tokenizer Class ?

SECTION—B

3. Explain the following in Java :

   (a) Runtime Polymorphism

   (b) Super Keyword

   (c) Final Keyword.

4. What is interface in Java ? What is advantage of Interface over class in Java ? Give an example.

SECTION—C

5. (a) What is difference between checked and unchecked exceptions ? Give an example.

   (b) What is use of throw and throws clauses ? Give an example.

6. How a thread is created in Java ? Explain various stages of life cycle of a thread.

SECTION—D

7. Write a program in Java to read contents of a text file and write the same into another file.

8. Using JDBC, write a program to display first n records from a table in MySQL. Assume and write table structure used.

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Bachelor of Computer Application (BCA) 5th Semester
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OPERATING SYSTEM
Paper—III

Time Allowed—3 Hours] [Maximum Marks—75

Note :— Attempt **FIVE** questions in all, selecting at least **ONE** question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. What is Distributed System ? What are its Advantages ?

2. What is the importance of CPU scheduling algorithm ? Explain any two such algorithms.

SECTION—B

3. What is a Semaphore ? Explain its use with an example.

4. Explain the concept of swapping with diagram.

SECTION—C

5. Explain demand paging.

6. Why do we need disk and disk scheduling algorithm ? What is disk reliability ?

SECTION—D

7. What is a deadlock ? How does it occur ? What can we do to handle it ?

8. Explain the concept of deadlock avoidance.

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Bachelor of Computer Application (BCA) 5th Semester
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WEB TECHNOLOGIES
Paper—II

Time Allowed—3 Hours] [Maximum Marks—75

Note :— Attempt **FIVE** questions in all, selecting at least **ONE** question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. What are features and advantages of HTML 5 ? How can you include multimedia elements in a web page using HTML 5 ? Give example.

2. Create a form with two text boxes and a button. Using Java Script, on the click of button, calculate factorial of number given in first text box and show output in second text. Add validations.

SECTION—B

3. Explain various inbuilt string and file handling functions available in PHP.

4. (a) Explain Session Management in PHP.

(b) What is a Cookie ? What is its use ? Write script in PHP to create and read a cookie.

SECTION—C

5. Which are reasons to use Al and ML in websites ?

6. Which are different types of hosting ? Give steps to host your website on a remote server.

SECTION—D

7. What is difference between AR and VR ? How are these helpful in websites ?

8. What are advantages and disadvantages of SPA ? How is Angular JS helpful in creating SPA websites ?

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Bachelor of Computer Application (B.C.A.)
5th Semester (Batch 2022-25)

SOFTWARE ENGINEERING

Paper—I

Time Allowed—3 Hours] [Maximum Marks—75

Note :—Attempt **FIVE** questions in all, selecting at least **ONE** question from each section. The fifth question may be attempted from any section. All questions carry equal marks.

SECTION—A

1. (a) Define Software. What are its components ? 5

   (b) How Spiral model handles the risk management during software development ? Explain. 10

2. Define the term Metrics. Explain the method of computing Function-Point Quality Metric in detail using the following example :

   Consider a project with the following functional units :

   - Number of user inputs = 24
   - Number of user outputs = 12
   - Number of user enquiries = 6
   - Number of user files = 10
   - Number of external interfaces = 2