

BCA Third Semester Examination - Dec.2015

SECOND PAPER

Advanced Java Programming

Paper Code: 3621

Time Allowed: Three Hours

Maximum Marks: 70

No supplementary answer book will be given to any candidate. Hence the candidates should write the answers precisely in the main answer book only.

(Attempt all six questions.)

Part I (Question No. 1 & 2) is compulsory & Part II (Question No. 3, 4, 5 & 6) has internal choice.

PART I

1. Attempt any 10 questions out of the following. Each question carries 1 mark.

10x1=10

(Words limit up to 20 words each)

- a) What is a Class?
- b) What is Polymorphism?
- c) What is Encapsulation?
- d) What do you mean by the Constructor?
- e) What is a Package?
- f) What is an Exception Handling in Java?
- g) What do you mean by Multithreading in Java?
- h) What is Garbage Collection?
- i) What is a Container?
- j) Why we use JDBC?
- k) What is a Frame?
- l) What do you mean by the Inner Class of Java?

2. Attempt all questions. Each question carries 5 marks.

4X5=20

(Words limit up to 50 words each)

- a) What do you mean by Function Overloading? Describe.
- b) Write a program to create a Package.
- c) Write a program to handle an exception in Java using throw and finally keywords.
- d) Write the use of Runnable Class.

PART II

Unit I

3. What is Object Oriented Programming System? What are the features of Java? Write in detail.

OR

- a) What do you mean by the Data Types? Explain its types in detail.
b) What do you mean by an Array? Write the syntax to declare an array

Unit II

4. What is the difference between an Interface and an Abstract Class? Also discuss the similarities.

OR

Write a program of multithreading explaining the thread management in Java.

Unit III

5. What are Java Applets and their Life Cycle? Explain.

OR

Write a program of AWT to give the examples of all four methods using inheritance.

Unit IV

6. What do you mean by the JDBC and its drivers? Explain its types with advantages and disadvantages.

OR

- a) Write the steps to connect the database in Java with examples.

b) Write a short note on:-

- i. java.lang
- ii. java.util
- iii. java.io.packages

BCA (Sem. III)

Ope.Sys.Fun.

BCA Third Semester Examination-Dec.2015
(Faculty of Science)

THIRD PAPER
Operating System Fundamentals
Paper Code :3631

Time Allowed: Three Hours

No supplementary answer book will be given to any candidate. Hence the candidates should write the answers precisely in the main answer book only.

Maximum Marks : 70

(Attempt all six questions)
Part I (Question No. 1 & 2) is compulsory & Part II (Question No. 3, 4, 5 & 6) has internal choice.

PART-I

1. Answer any 10 questions. Each question carries 1 mark.

10x1= 10

(Words limit upto 20 words each)

- a) What is an Operating System ?
- b) What is Timesharing System ?
- c) What is a System Call ?
- d) What is a Process ?
- e) Write Operating System components.
- f) Explain the term Spooling.
- g) What is Access Matrix ?
- h) What is Semaphores ?
- i) What is Paging ?
- j) What is Virtual Memory ?
- k) What is Circular Wait ?
- l) What is Real Time Operating ?

4x5=20

2. Attempt all questions. Each question carries 5 marks.

(Word limit upto 50 words each)

- a) What are the main purposes of an Operating System ?
- b) Explain the difference between logical and physical address.
- c) What are the necessary conditions for deadlock to occur ?
- d) Explain the File Protection and Security.

P.T.O

PART-II

UNIT I

3. Differentiate between Timesharing System and Distributed Systems.

OR

What do you understand by Processor Scheduling ? What factors affect the scheduling schemes ?

UNIT II

4. What are the different techniques of memory management ? Explain each of them.

OR

What are the various implementation strategies of virtual memory ?

UNIT III

5. Explain the working of Banker's Algorithm for deadlock avoidance with suitable examples.

OR

Write short notes on:

- (i) File Access methods
- (ii) Directory Structure

UNIT IV

6. Explain various disk scheduling algorithms in brief.

OR

What are the goals of Computer Security ? Explain the Access Matrix Scheme.

BCA Third Semester Examination- Dec.2015**FOURTH PAPER****SYSTEM ANALYSIS & DESIGN**

Paper Code: 3641

Time Allowed: Three Hours**Maximum Marks : 70***No supplementary answer book will be given to any candidate. Hence the candidates should write the answers precisely in the main answer book only.**किसी भी परीक्षार्थी को पूरक उत्तरपुस्तिका नहीं दी जायेगी। अतः परीक्षार्थियों को चाहिये कि वे मुख्य उत्तरपुस्तिका में ही समस्त प्रश्नों के उत्तर लिखें।***(Attempt all six questions.)****Part I (Question No. 1 & 2) is compulsory & Part II (Question No. 3, 4, 5 & 6) has internal choice.****PART-I****1. Answer any 10 questions. Each question carries 1 mark.****10x1= 10**

(word limit up to 20 words each)

- a. Why do we need a System ?
- b. What is MIS ?
- c. What is DSS ?
- d. What do you mean by a feasible system ?
- e. What is the primary responsibility of a Systems Analyst ?
- f. What is Audit Trail ?
- g. What do you mean by Strategic Information ?
- h. What do you mean by Quality Assurance ?
- i. What is Data Dictionary ?
- j. What do you mean by Structured System Analysis ?
- k. What is the difference between Black Box Testing and White Box Testing ?
- l. What do you mean by security of a system ?

2. Attempt all questions. Each question carries 5 marks.**4x5=20**

(word limit up to 50 words each)

- a. What are Open and Close systems ?
- b. What is the difference between Coupling and Cohesion ?
- c. What is DFD ? Why do we use them ?
- d. What is Prototyping ?

P.T.O.

3. List different phases in the SDLC. Write down input, deliverables, and output from each phase of SDLC.

OR

What is a system ? Explain the characteristics and elements of a system.

Unit-II

4. What do you mean by Feasibility Study ? Why Feasibility Study is necessary ? Explain types of feasibilities.

OR

Explain Preliminary Investigation. List and explain the steps involved in the determining users requirements.

Unit-III

5. An International Airline initiated a frequent traveller programme designed to encourage passengers to fly regularly and earn awards based on miles flown. The airline policy is specified as follows :

Passengers who fly more than 1,00,000 miles per calendar year and, in addition, pay cash for tickets or have been flying the airline regularly for more than five years are to receive a free round-trip ticket around the world. Passengers who fly less than 1,00,000 miles per calendar year and have been flying the airline regularly for more than five years also get a free round-trip ticket around the world.

Draw a decision tree based on the statement.

OR

Explain the different information gathering tools with advantages of one over another.

Unit-IV

6. What do you mean by Documentation ? Explain usefulness and different types of documentation. Also explain characteristics of good documentation.

OR

Explain System Testing and its types. Explain the System Acceptance criteria.
