

सत्रीय कार्य / Assignment Work – 2015-16

BCA Final Year

Max Marks – 30

Min Marks - 10

निर्देश : सत्रीय कार्य के प्रत्येक विषय में कुल 30 अंक हैं । सभी प्रश्नों के अंक समान होंगे । सभी प्रश्न हल कीजिए । (Assignment Work of each paper carries 30 Marks. All questions carry equal marks. Attempt all questions.)

Computer Graphics – I

1. Write short notes on: (a) 3D primitives; and (b) Shearing transformation.
2. Write a short note on interpolating polygons.
3. What do you mean by composite transformation? How is it useful?
4. Explain Sutherland-Hodgeman algorithm for polygon clipping.
5. Discuss the merits and demerits of real time scan conversion and run length encoding.

Discrete Mathematics – II

1. Show that the union of two ideals of a ring R is an ideal of R if and only if one is contained in the other.
2. Define Permutations and Combination with example.
3. Explain Relation. Define Properties of Relation as binary relation on a Set.
4. Explain existence of inverse function (mapping)?
5. In how many ways can three x's, three y's and z's be arranged so that no consecutive triple of the same letter appears?

Management Information System – III

1. Explain following with regard to system: (i) Characteristics (ii) Elements (iii) Types.
2. Explain relation between DSS and Management Information System.
3. Write down a note on functional decomposition. Explain joint application development.
4. What are the features of visual display terminal?
5. Explain the criteria for software selection. What is World Wide Web?

Internet Technology and Web Application - IV

1. What is subnet mask? Explain with suitable example. What are routers?
2. What is dial-up connection? How do you make a dial-up connection? Write all steps.
3. Write short notes on the following: (a) MIRC (b) Cookie (c) Firewall (d) DNS.
4. What are the differences between server and client component of a network? Explain.
5. When is Demilitarized Zone (DMZ) required? How is it implemented?

Java Programming – V

1. What is a Java applet? What are its functions?
2. What are the branching statements associated with the language Java?
3. Write a program which will read a text and count all occurrences of a particular word.
4. Write a program to demonstrate the use of array copy () function.
5. What do you mean by checked and unchecked exceptions? Give examples.

Simulation & Modeling – VI

1. What is difference between static and dynamic models? Give an example of a dynamic mathematical model.
2. What is an exponential distribution? Explain with an example.
3. Is Poisson's arrival pattern for queuing valid for all types of queues? Explain with an example.
4. What do you mean by Economic Order Quantity (EOQ)?
5. Derive an expression for exponential decay model and give an example where it is used.

Software Engineering – VII

1. Who should be consulted when collecting the requirements of a computer-based system to replace an existing information system?
2. Sketch out the code for a method to search an array of integers to find some desired integer. Write two versions - one using the break mechanism and one without break.
3. What is modularity and why is it important.
4. What characteristics should a good software design method have? Does functional decomposition exhibit them?
5. Write a loop that repeats ten times, first using a 'while' statement, then using 'go to'?