

सत्रीय कार्य / Assignment Work – 2015-16

B. Sc. IT 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.)

Algorithms and Data Structure - I

1. With the help of an example, explain the conversion of infix to postfix expression.
2. Describe stack and write algorithms for push & pop operations.
3. Define binary search. Explain it with example. Compare binary search with linear search.
4. Write short notes on: (a) Priority Queue; (b) Directed Graph; (c) Data Structure; and (d) Sub graph.
5. Write the algorithm of heap sort? Define hash table?

Computer Graphics - II

1. What is Computer Graphics? Write a short note on Input Devices.
2. Define vector generation? Explain the basic concept in line drawing.
3. A point (4, 3) is rotated counterclockwise by an angle of 45°. Find the rotation matrix and the resultant point.
4. Write short notes on: (a) Touch screens; (b) Shearing transformation; and (c) 3D transformation matrix for Translation.
5. Explain the Z-buffer algorithm for hidden-surface removal.

Management Information System - III

1. Write short notes on following: (a) Expert System; (b) Levels of management; and (c) Information system in business.
2. What do you mean by software maintenance? Explain how to reduce maintenance cost.
3. What is planning? Explain the features, advantages and limitations of planning.
4. Write a note on importance of controlling. Explain the limitations of controlling.
5. Differentiate between hardware and software suppliers.

Computer Network - IV

1. What is difference between non-persistent CSMA and persistent CSMA?
2. Write short notes on: (a) Asynchronous Transmission; and (b) Demilitarized Zone (DMZ).
3. What are different phases of security lifecycle? What are the key principles of security?
4. Write a note on ATM. Explain the ATM reference model.
5. What is the role of Firewall? What are the different types of Firewalls?

Computer Organization and Architecture - V

1. What do you understand by microprocessor? Explain its characteristics and describe various types of microprocessors.
2. Write short notes on Integer and Floating-point representation with suitable examples.
3. Describe briefly about the BCD Code.
4. Explain various laws of Boolean algebra.
5. What do you mean by register transfer language? Explain how bits are represented in registers.

Multimedia System - VI

1. What is a Film Recorder? Write the advantages and disadvantages of Dot Matrix Printer.
2. What is the importance of graphics in Web designing? Explain.
3. What are differences between mono and stereo sound? Explain.
4. What is Adobe Premiere Pro? How does premiere work? Explain Adobe Premiere Workspace.
5. Write short notes on: (a) Cloning and Masking; (b) Font Creator; (c) Video Editing; and (d) SMIL.