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PR-604-605 Seat No. 1756

B. C. A. (Sem. IV) Examination

April / May - 2016

1. BCA-404 : Computer Graphics (Elective-I)

2. BCA-404 : Operating System

Time : 3 Hours] [Total Marks : 70

1. BCA-404 : Computer Graphics (Elective-I)

1 (a) Do as directed. 6

(1) What is computer graphics ?

(2) Define term Resolution.

(3) What is Random - scan display ?

(4) List out output devices.

(5) Define Pixmap in graphics.

(6) Define term Persistence.

(b) Attempt the following (Any three) : 12

(1) Write application of computer graphics.

(2) Explain Raster - scan display in detail.

(3) Explain CRT (Cathode Ray Tube).

(4) Explain input devices in detail.

2 (a) Do as directed. (Any two) 5

(1) Explain boundary fill Algorithm.

(2) Define Bundled and cell array.

(3) Explain Antialising and Grayscale.

(b) Attempt the following (Any three) : 12

(1) Explain mid point circle generation algorithm.

(2) Explain Bhesnham's Algorithm.

(3) Explain area fills character attributes.

(4) Explain flood fill Algorithm.

3 (a) Do as directed. 6

(1) Define translation and Rotation.

(2) Define Reflection and shear.

(3) Explain raster method for transformation.

(b) Attempt the following (Any three) : 12

(1) Explain the translation transformation.

(2) Explain the rotation transformation.

(3) Explain the scalling transformation.

(4) Explain Matrix representation and homogeneous coordinates in detail.

4 (a) Do as directed. 5

(1) What is viewport ?

(2) What is point clipping ?

(3) What is text clipping ?

(4) Define viewing pipeline.

(5) Define Window.

(b) Attempt the following (Any three) : **12**

(1) Explain line clipping Algorithm.

(2) Explain Sutherland - Hoagemon polygon clipping Algorithm.

(3) Explain curve clipping in detail.

(4) Explain window - to - view port co-ordinate transformation.

2. BCA-404 : Operating System

1 (a) Answer the following. 8

(1) What is User Interface ?

(2) What is Buffering ?

(3) What is the Task of Operating System?

(4) Define Kernel with Advantage and Disadvantage.

(b) Answer the following. (Any Two) 10

(1) Explain the function of Operating system.

(2) Discuss the client server model.

(3) Explain operating system with classification.

2 (a) Answer the following. 4

(1) What is process scheduling ?

(2) What is context switching ?

(3) Define : Through put.

(4) What is response time ?

(b) Answer the following. (Any Two) 8

(1) What is scheduler ? Explain long term scheduler in detail.

(2) Difference between Process and thread.

(3) What is PCB ? Explain in detail.

(c) Explain SJF primitive algorithm with example. 5

OR

(c) Explain RR scheduling algorithm with example. 5

3 (a) Answer the following. 6

(1) What is Semaphore ? Give types of it.

(2) What is Multithreading and Multitasking?

(3) Define : Deadlock.

(b) Answer the following (Any three) : 12

(1) What are the methods of Handling Deadlock ? Discuss.

(2) What is Deadlock ? Describe the causes of Deadlock.

(3) Explain Deadlock Detection and Deadlock Recovery.

(4) Explain Thread Process in detail.

4 (a) Answer the following. 5

(1) Define Page Fault.

(2) What is MMU ?

(3) What is Thrashing ?

(4) What is Memory Management ?

(5) What is Demand Paging ?

(b) Answer the following (Any three) : 12

(1) Explain the steps of Handling the page fault.

(2) What is paging ? Discuss Demand paging.

(3) Describe Memory Fragementation.

(4) Difference between segmentation and fragmentation.
