

I Semester M.Tech. (I.T.) Examination, June/July 2010
INTERACTIVE COMPUTER GRAPHICS

Time : 3 Hours

Max. Marks : 80

Instruction : Answer ***all*** questions from Part A, and answer ***any five*** questions from Part B.

PART – A

(5×6=30)

1. What is the essence of studying computer graphics ?
2. What is simulation ? Explain.
3. Explain DDA algorithm that draws a line between any two points.
4. Describe generation of ellipse.
5. Explain concentration of the operations.
6. What is singularity ? Describe the singularity algorithm.

PART – B

(10×5=50)

1. With a neat diagram explain the working of DVST.
 2. What are the techniques for 3-Dimensional displaying ?
 3. Explain three dimensional transformations.
 4. With suitable sketches, explain Bresenham's circle drawing algorithm.
 5. Explain the different types of techniques used in 3 dimensional imaging.
 6. Write short notes on :
 - a) Depth- Buffer Algorithm.
 - b) Notion of Effects reduction.
 7. Discuss on graphical input techniques.
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I Semester M.Tech. (IT) Examination, June/July 2010
ADVANCED COMPUTER ARCHITECTURE

Time : 3 Hours

Max. Marks : 80

Instructions : Answer all questions from Part A, and answer any five questions from Part B.

PART – A

(6×5=30)

1. Explain relative mode of addressing and index mode of addressing.
2. Explain the difference between CISC and RISC.
3. Distinguish between segmentation and paging.
4. Explain the characteristics of cache memory.
5. How is DMA used in computer system ? Explain.
6. What are interrupts ? Explain their mechanism.

PART – B

(10×5=50)

1. What are the different registers used in ALU ? Illustrate the mechanism of devising fixed point addition and subtraction unit.
 2. Explain different types of reallocation mechanisms.
 3. Explain microprogramming and micro instruction with examples.
 4. Describe the term memory references ? What is the principle behind address mapping ?
 5. Define associative memory. Discuss any two types of associative memory.
 6. Discuss the role of DMA in data transfer.
 7. Explain the difference between multiprocessing and multiprogramming.
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I Semester M.Tech. (IT) Examination, June/July 2010
ADVANCED DBMS

Time : 3 Hours

Max. Marks : 80

Instruction : Answer all questions from Part A, and answer any five questions from Part B.

PART – A

(6×5=30)

1. Comment on the three-tier architecture of Database system.
2. Discuss the different to process a query in any DBMS.
3. Explain Extended ER model with a suitable example.
4. Define relation. Discuss any four basic operations proposed in relational model to retrieve the information from relational database.
5. Write a note on multi-valued dependency.
6. Explain buffer management.

PART – B

(5×10=50)

1. What are the advantages of having DBMS when compared to file management system ?
 2. Explain different database languages.
 3. Define Functional dependency. What is its significance in building the good relational schema ?
 4. Explain 3NF and BCNF with an example.
 5. Define transaction. Explain the life cycle of a transaction.
 6. Discuss the different reasons for failure of transactions.
 7. Explain any two concurrency control methods.
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