Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly).

## Unit - I

- 1. a) What are the broad approaches for migration into cloud? Discuss the challenges and risks involved in this process. (8)
  - b) Explain the followings with reference to cloud computing (in brief):
    - i) Ethical issues
    - ii) Networking support.

 $(2\times4)$ 

## OR

- 1. a) Explain the various features, characteristics and components of cloud computing system. (8)
  - b) What are the various services provided by the cloud to the end user and what are its advantages. (8)

## Unit - II

2. a) Explain parallel and distributed programming paradigms in cloud computing using a practical example (8)

[Contd....

|       | b)                 | Describe the following service delivery models by giving the suitable on industry:-                                       | examples       |      |
|-------|--------------------|---|----------------|------|
|       |                    | i) laaS   | 4.             | a) _ |
|       |                    | ii) SaaS  | (24)           | •    |
|       |                    | OR  | (2×4)          | b)   |
| 2.    | a) '               |   |                | •    |
| _,    | 4)                 | Write short notes on :-   |                |      |
|       | ij                 | i) Map Reduce   |                |      |
|       | ii                 | ii) Hadoop  |                |      |
| 1     | b) E               | Explain vovi  | (2×4) 5.       | a)   |
|       | St                 | Explain various service layers in layered architecture of cloud with the suitable examples.                               | help of (8)    | b)   |
|       |                    | Unit - III  |                |      |
| 3. V  | Vhat is<br>Differe | s virtualization? Explain the various implementation levels of virtualizentiate between server and desktop virtualization | zation (16) 5. | a`   |
| •     |                    | OR  |                | ь    |
| 3. a) | Wł<br>virt         | hat is network virtualization? Describe the various components in net tualization   | work           | Ü    |
| b)    |                    | rite short notes on:-   | (8)            |      |
|       | i)                 | VMware hypervisor   |                |      |
|       | ii)                | KVM hypervisor  |                |      |
|       |                    |   | 2×4)           |      |
| 4. a) | Wa.                | Unit - IV   |                |      |
|       | wha                | at are the types of security policies for cloud computing?  | (8)            |      |
| b)    | Proce              | ess of BCP.   |                |      |
|       | 11000              |   | : &<br>(8)     |      |
| ř     |                    |   |                |      |

## OR

What are cloud security requirements. Explain the various security challenges 4. a) (8)in cloud computing. Write short notes on:b) Service level agreements i)  $(2\times4)$ Trust management. ii) Unit - V What is Google App. Explain the architecture of Google App Engine in detail. 5. a) What do you understand by federated cloud? Explain using a suitable example b) OR Explain the data analysis application of cloud computing (8) 5. a) Describe the system architecture of aneka using a suitable example. **(8)** b)

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7E7032

B.Tech. VII Semester (Main) Examination, Dec. - 2015 Computer Science & Engineering 7CS2A Information System Security

CS, IT

Time: 3 Hours

Roll No.

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

## Unit - I

- 1. a) What is cryptography? Explain Block and stream ciphers in detail. (8)
  - b) What are the non-linear components used in DES encryption & description(8)

## OR

- 1. a) Differentiate amongst cryptology, cryptography and cryptanalysis (8)
  - b) What are the difference between active and passive attack? Determine the security services required to counter these attack. (8)

## Unit - II

2. What is AES? What are the major parameters used in AES? Explain the processing of plain text with a suitable diagram. (16)

OR

| 2. | . a)   | What is the purpose of the S-Boxes is DES? What is the criteria to design S-Boxes? (10)   | 5. | a)      | W          |
|----|--|---|----|---------|------------|
|    | b)   | Explain RC6 in detail. (6)  |    | b)      | <b>D</b> c |
|    |  | Unit - III  |    |         |            |
| 3. | a)   | What is the strength of RSA? What are the different kinds of attacks possible against RSA? (8)  | 5. | W       | rite       |
|    | b)   | What is X.509 certificate? Differentiate between X.509 client certificate and a normal SSL certificate. (8)   |    | a)<br>t | )<br>))    |
|    |  | OR  |    | 1       | c)         |
| 3. | 3. Explain diffie Hellman key Exchange Algorithm in detail what are "Clogging attack" and "Man in the middle attack" on Diffie Hellman algorithm? (16) |   |    |         | ,          |
|    |  | Unit - IV   |    |         |            |
| 4. | a)   | Differentiate between MAC and Hash value What are the characteristics of a good hash function? (8)  |    |         |            |
|    | b)   | Explain SHA in detail. (8)  |    |         |            |
|    |  | OR  |    |         |            |
| 4. | a)   | Explain Birthday attack on digital signature. Does it involve breaking of strong collision resistance or weak collision resistance? Justify your answer (8) |    |         |            |
|    | b)   | What are the difference between source authentication and source Non-repudiation? Also explain the MD5 in detail (8)  |    |         |            |

## Unit - V

| -64 Transformation? (10) | What are the services provided by PGP? What is Radix -64 7 Why it is required in PGP? | a)  | 5. | sign S-<br>(10)  |
|--------------------------|---|-----|----|------------------|
| (6)                      | Define IP Security Architecture.  | b)  |    | (6)              |
|                          | OR  |     |    |                  |
|                          | rite short note on(any 2)   | Wri | 5. | sible<br>(8)     |
|                          | Lamport's Hash  | a)  |    | nd a             |
|                          | Transport and Tunnel mode   | b)  |    | (8)              |
| (8×2=16)                 | Authentication Header   | c)  |    |                  |
|                          |   |     |    | ek"<br><b>6)</b> |
|                          |   |     |    | a                |

-:)

OR

| 2. | a)   | What are the different types of data bases? Explain them?   | (8)         | . a | )  | Diffe  |
|----|------|---|-------------|-----|----|--------|
|    | b)   | Describe any one association rules algorithm with example?  | (8)         | 1   | 0) | Wh     |
|    |      | Unit - III  |             |     |    |        |
| 3. | a)   | Describe Neural Network Techniques for data mining? Also Explain the relabetween decision trees and classification rules? | ation (8)   | 5.  | a) | W      |
|    | b)   | What are advantages and disadvantages of decision tree approach over capproaches of data mining                           | other (8)   |     |    | í<br>ĭ |
|    |      | OR  |             |     |    | b)     |
| 3. | a)   | What do you mean by Genetic Algorithm? How hypothesis testing refinement task can be done using genetic algorithm.        | and (8)     |     |    | ,      |
|    | b)   | Describe the various types of density based methods and grid based methods in detail?                                     | nods<br>(8) |     |    |        |
|    |      | Unit - IV   |             |     |    |        |
| 4. | a)   | What is data warehouse? How it is different from an operational database  | ?(8)        |     |    |        |
|    | b)   | Explain the architecture of data ware house.  | (8)         |     |    |        |
|    |      | OR  |             |     |    |        |
| 4. | Wri  | te a short note on:-  |             |     |    |        |
|    | i)   | 3-Tier Architecture   |             |     |    |        |
|    | ii)  | Data Cubes  |             |     |    |        |
|    | iii) | Multi dimensional and data model  |             |     |    |        |
|    | iv)  | Stars (4×4=   | =16)        |     |    |        |

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Unit - V

| (8)                | j. | a) | Differentiate between OLTP and OLAP?                                 | (6)           |
|--------------------|----|----|--|---------------|
| (8)                |    | b) | What do you mean by Aggregation? And Explain different aggregate for | unction? (10) |
| dar                |    |    | OR   |               |
| lation (8)         | 5. | a) | Write a short note on:-  | (4×2=8)       |
| other (8)          |    |    | i) ROLAP   |               |
| (0)                |    |    | ii) MOLAP  | (8)           |
| and                |    | b) | Explain the testing terminologies in brief.                          | (-)           |
| (8)                |    |    |  |               |
| ods<br>( <b>8)</b> |    |    |  |               |
| 3)                 |    |    |  |               |

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## 7E7034

B.Tech. VII Semester (Main) Examination, Dec. - 2015 Computer Science & Engineering 7CS4A Computer Aided Design for VLSI

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

## Unit - I

- 1. a) What are the different semi-custom design styles for circuits? (8)
  - b) Explain the four phases in creating micro electronics chips in computer aided synthesis and optimization. (8)

## OR

- a) What are the various views and levels of the micro electronic circuit models.
   Also express the relation between them.
  - b) Compare the following task realization approaches:
    - i) Full custom
    - ii) Semi custom.
    - iii) Off the shelf IC package
    - iv) Off the shelf micro computer.

 $(2 \times 4 = 8)$ 

# Unit - II

| 2. | a) | What is Binary decision diagram? Explain ROBDD algorithm.  | (8)            | a) |
|----|----|--|----------------|----|
|    | b) | Explain the compilation and behavioral optimizations.  | (8)            | b) |
|    |    | OR   |                |    |
| 2. | a) | Explain ITE algorithm and QUANTIFY algorithm.  | (8)            | a) |
|    | b) | Write short note on:   |                | b) |
|    |    | i) Abstract models   |                |    |
|    |    | ii) Hierarchical sequencing graphs.  | (4×2=8)        |    |
|    |    | Unit - III   |                |    |
| 3. | a) | Explain ASAP scheduling algorithm using one example.   | (8)            |    |
|    | b) | Distinguish between temporal and spatial domain scheduling. Give one explaining resource binding in hierarchical sequencing graph. | e example (8)  |    |
|    |    | OR   |                |    |
| 3. | a) | Explain Heuristic scheduling algorithm with example, show optimum under resource constraints.                                      | schedule (8)   |    |
|    | b) | Discuss the classification and categories of resource and constraints help of examples.  | s with the (8) |    |
|    |    | Unit - IV  |                |    |
| 4. | a) | Explain resource sharing and resource binding. What are compatible conflict graphs?  | bility and (8) |    |
|    | b) | Write the algorithm for exact logic minimization with an example.  | (8)            |    |
|    |    | OR   |                |    |
| 4. | a) | Explain register sharing and bus sharing with the help of example.   | (8)            |    |
|    | b) | State and explain the principles of logic optimization.  | (8)            |    |
|    | •  |  |                |    |

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# Unit - V

|    | Explain physical design cycle with appropriate diagram.    | (8) |
|----|--|-----|
| a) |  | (8) |
| b) | Explain Global routing along with goals and objectives.    | (0) |
|    | OR   |     |
| a) | Explain left edge algorithm with an example.               | (8) |
| b) | Explain clock routing, power routing and via minimization. | (8) |

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7E7035

B.Tech. VII Semester (Main & Back) Examination, Dec. 2015 Computer Science & Engineering 7CS5A Compiler Construction

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

## Unit - I

1. Explain the difference phases of compiler design with the help of suitable diagram? (16)

## OR

- 1. Write a regular expression and construct a transmission diagram of the following:
  - i) Identifier and keywords in pascal
  - ii) Unsigned numbers in pascal.

(16)

## Unit - II

2. Consider the following grammar G:-

$$E \rightarrow TE'$$

$$E' \rightarrow +TE' \in$$

$$T \rightarrow FT$$

$$T' \rightarrow *FT' \in$$

$$F \rightarrow (E)$$
, id

Where ∈ denotes the empty string of symbols

١

Compute FIRST and FOLLOW for each nonterminal OF the grammar G. ii) Construct a predective parsing table for grammar G. Explain why Bottom-up parsing is more generally applicable then top-down parsing 2. Unit - III Define syntax directed definition. Explain the various forms of syntax directed 3. definition? OR Translate the arithmetic expression: (a+b)\*(c+d)\*(a+b+c) into 3. i) Syntax tree Three address code ii) Quadruple iii) iv) Triples Indirect triples. v) **(16)** Unit - IV 4. Write short notes on i) Symbol Table Storage allocation strategies ii) iii) **Activation Record** (16)OR Differentiate between stack allocation & heap allocation? 4. (16)Unit - V Consider the program for dot product calculation: 5. Begin Prod := 0i := 0do Begin Prod := Prod + a [i] \* b [i]i := i + 1End While i < = 20

i)

- 1) Construct flow graph from three address code.
- ii) Optimize this code reduce for common sub-expression, loop invariants, induction variables and reduction in strength.
- Find the basis block and construct the flow graph. Optimize the code by applying function preserving transformation. (16)

OR

Construct the tree for following expression and apply labelling algorithm for optimal ordering x\*(y+z)-z/(u-v) (16)

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## 7E7036

B.Tech. VII Semester (Main & Back) Examination, Dec. - 2015 Computer Science & Engineering

7CS6.1A Advance DataBase Management Systems Common With CS (Old & New) & IT (Old)

time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly).

## Unit - I

1. What is Optimization? How can you optimize a SQL query and how we estimate cost of query plan? Explain with suitable examples. (4+6+6=16)

## OR

- 1. a) Explain the term system catalog? Also explain how catalog are stored? (8)
  - b) Describe enumeration of alternative plan in brief?

## Unit - II

- 2. a) Define and describe abstract data type. How methods of abstract data types define in an external programming language? (8)
  - b) What is reference type? Define deep and shallow equality and illustrate them through an example. (8)

## OR

- 2. a) What is the object database system? How object database system support for complex object and types of object? (8)
  - b) What are different structured data types available in object database system?

(8)

(8)

|    |    | 32/   |              |                      |
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|    |    | Unit - III  | $\parallel$  |                      |
| 3. | a) | What is concurrency control? What are the recovery techniques to overcofrom concurrency?                        | om   <br>(8) | B.Te                 |
|    | b) | How are data flow concept used to parallelize existing sequential code?   | (8           | I make a             |
|    |    | OR  | -            |                      |
| 3. | a) | What is distributed DBMS? Explain its architecture.   | (8)          | . **                 |
|    | b) | How can we evaluate and optimize queries over distributed data?   | (8)          | Time: 3 H            |
|    |    | Unit - IV   | (~,          |                      |
| 4. | a) | Explain the term security policy and security mechanism and how they related.                                   | are<br>(8)   | Instruction<br>Atten |
|    | b) | Describe role of database administrator in statistical DBMS. Write all secu and authorization method in detail. | . ,          | carr)<br>Any<br>quai |
|    |    | OR  |              | 7                    |
| 4. | a) | Define and describe integrity constrains and multilevel relational a polyinstantiation with an example.         | and<br>(8)   |                      |
|    | b) | Discuss the DOD security levels for database system.  | (8)          | 1. a)                |
|    |    | Unit - V  |              | b)                   |
| 5. | a) | Explain the transaction management with various key notation.   | ·<br>(8)     | υ,                   |
|    | b) | What is XML? What is the background of XML with SGML & HTML?  | (8)          |                      |
|    |    | OR  |              | 1. a                 |
| 5. | a) | Explain in brief query processing optimization and system architecture?   | (8)          | 1                    |
|    | b) | Dani'l DOCTORES : 4 47  | (8)          |                      |
|    |    |   |              | 2.                   |
|    |    |   |              |                      |
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|Total No. of Pages : Roll No. 7E7051 B.Tech. VII Semester (Main & Back) Examination Nov. - Dec. 2015 **Information Technology** 7IT1A Software Project Management Maximum Marks: 80 3) l'ime: 3 Hours Min. Passing Marks: 24 :) Instructions to Candidates: Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.) Unit - I Why project management is important in software development. Give 1. a) (10)justification to your answer. **(6)** Explain W5HH principle of project management. b) OR **(8)** Explain Metrics for process and project in detail. ١. a) How metrics can be integrating within software process? Explain. **(8)** b) Unit - II Give cost estimation models along with the parameters of estimation during software 2. (16)project management. OR How efforts can be estimated during software project management also describe 2. (16)the parameters for quality estimation.

| 3. What is Risk management? C:  |                |             |
|---|----------------|-------------|
| 3. What is Risk management? Give Reactive v/s proactive Risk strate along with various Software Risk.   | gies in detail | 7           |
| <ul> <li>3. a) Explain Quantitative approaches to quality management in detail.</li> <li>b) Write short note on quality process planning.</li> </ul>  | 110)           | 7E705       |
| 4. Write short notes on   | (6)            | 1           |
| <ul><li>a) Formal technical review and software Review.</li><li>b) Software configuration management.</li></ul>   | (2×8)          | Time :      |
| 4. Write short notes on   |                | Instru<br>A |
| <ul><li>a) Configuration management for web engineering.</li><li>b) Software quality assurances.</li></ul>  | (2×8)          | <i>C 1</i>  |
| 5. a) Explain the review process with planning overview and preparation in b) Explain Reviews and Ide   |                |             |
| b) Explain Reviews on La  | detail.        | 1.          |
| b) Explain Reviews and the NAH syndrome.  | (10)           |             |
| 5. Explain and write a task   | (6)            |             |
| <ul> <li>5. Explain and write a technical note on the following.</li> <li>a) Actual versus estimated analysis of effort and schedule.</li> <li>b) Monitoring quality and Pictoria.</li> </ul> |                | ١.          |
| b) Monitoring quality and Risk related monitoring.  | (8)            |             |
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| detail <b>C</b> (16) | B. Tech. VII Semester (Main&Back) Examination, Dec 2015 |
|                      | Information Technology 71T4A Internet Programming       |
| (10)                 | 71T4A Internet ITog                                     |

Time: 3 Hours 2×8)

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Maximum Marks: 80 Min. Passing Marks: 24

# Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

## Unit - I

- Is there any difference between cascading style sheets and embedded style a) ١. sheets in XHTML? Explain
  - What do you understand by CSS3? Explain. **b**)

## OR

- Explain the W3C XHTML validation service with a suitable example. a) 1.
  - What are the different text flow media types? Explain one in detail. b)

## Unit-II

- Explain document object model (DOM) in detail. a) 2
  - What do you mean by extensible style sheet language? Explain. b)

## OR

- What are DTDs? Explain with suitable examples. a) 2.
  - What is meant by RSS? Explain in detail. **b**)

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## Unit-III

- 3. a) How do you create a full scale Ajax enabled application? Explain by an example.
  - b) What do you understand by 'Microsoft Internet Information Suscentification Suscentification Suscentification Suscentification (Section 2)

## OR

- 3. (i) What do you mean by HTTP transaction? Give 3 examples and explain
  - b) Is there any difference between client side scripting and server-side scripting Explain.

## **Unit-IV**

- 4. a) What do you mean by session tracking in Ajax? Explain with a suitable example
  - b) How do you connect to a database? Explain using PHP language example

## OR

- 4. a) What is the significance of string processor in PHP? Explain with an example
  - b) How do you connect to a database in ASP.NET? Explain with a suntable example

## **Unit-V**

5. How do you create an run an application in NetBeans? Explain with a sunate example.

## OR

5. What is Java server faces's session tracking? How do you achieve it? Explain the a suitable example

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7E7053

# B.Tech. VII Semester (Main/Back) Examination, Dec. - 2015 Information Technology

7IT5A Computer Graphics & Multimedia Techniques

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

#### Unit - I

- a) Discuss the importance and utility of a display processor in computer graphics system. Also list up the advantages and disadvantages of raster and vector graphics.
  - b) Explain the process of displaying objects in raster display. Draw the block diagram of the architecture of display system. (8)

#### OR

- a) Explain scan conversion. Write a Bresenham's for line m≥1. Write advantage of Bresenham's line algorithm over DDA line algorithm. (10)
  - b) Write boundary fill algorithm to fill an 8-Connected region. (6)

#### Unit-II

- 2 a) What are the uses of homogenous coordinates? Convert translation rotation and scaling in homogenous coordinates (8)
  - b) What is composite transformation? Explain two successive translations and rotations.

#### OR

- 2. a) What is line clipping? Explain Cohen-Sutherland line clipping algorithm. (8)
  - b) How can polygons be clipped. Explain Sutherland-Hodgeman polygons clipping algorithm. (8)

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(1)

[Contd....

## Unit-III

Explain depth Buffer Algorithm to display visible an faces of a given polyhedron. Also explain the any relation in object and storage requirements of the depth buffer? (16)OR What is Beizer curve? Explain the Beizer blending functions (8)3. a) Write a short note on B-spline curve. (8)b) Unit-IV Discuss about CMY color model and YIQ color model. **(8)** 4. a) **(8)** Explain phong shading and compare it with Gourand shading. b) Write short note on Diffuse Reflection and Ambient Reflection (10)4. a) Define illumination? Explain process of illumination **(6)** b) Unit-V

## OR

What are the major application areas of multimedia?

Explain the various components required for a multimedia system.

**(8)** 

**(8)** 

- 5. Write short note on following:
  - a) SCSI User interface.
  - b) MCI User interface.
  - c) RTF File format.
  - d) BMP File format.  $(4\times4)$

5.

a)

b)

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## 7E 7054

# B. Tech. VII Semester (Main&Back) Examination, Dec. - 2015 Information Technology

71T6.2A Intelligent Systems

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly).

## Unit - I

- 1. a) What is AI? Explain its origin and its various applications. (8)
  - b) Differentiate between knowledge base system and data base system (8)

#### OR

- 1. a) What do you mean by knowledge manipulation? Explain how uncertainty is managed in AI. (10)
  - b) Why LISP used for AI? (6)

## Unit-II

- 2 a) What is the need of Inference rules in AI? (3)
  - b) Draw the block diagram of fuzzy logic. Explain the concept of fuzzy logic control in brief. (8)

## OR

- 2 a) What are the advantages of fuzzy logic control over artificial neutral network?
  (8)
  - b) What are a mantics? Explain the semantic rules for statement? Also describe the properties of statements (8)

## Unit-III

| 3. | a)         | What is knowledge? Differentiate procedural and declarative knowledge detail.  | in<br>(8)    |
|----|------------|--|--------------|
|    | b)         | What are the different searching strategies used in knowledge organization   | 1?           |
|    |            |  | (8)          |
|    |            | OR   |              |
| 3. | a)         | Explain any matching technique used in knowledge organisation.   | (8)          |
|    | b)         | How the knowledge manage in organisation? Explain with a suitable exam   | ple<br>(8)   |
|    |            | Unit-IV  |              |
| 4  | a)         | Explain premise clauses and conclusion clauses in rule based knowle representation   | dge<br>(8)   |
|    | b)         | What are the different rules properties used for knowledge representation  | i?<br>(8)    |
|    |            | OR   |              |
| 4  | a)         | Explain forward chaining algorithm   | (8)          |
|    | b)         | What are source uncertainty? Explain Baye's theorem in detail.   | (8)          |
|    |            | Unit-V   |              |
| 5. | Wh<br>be o | at do you mean by knowledge acquisition? What are the different issues sho<br>considered for planning knowledge acquisition? | ould<br>(16) |
|    |            | OR   |              |
| 5  | Wri        | ite short note on (any two)  |              |
|    | a)         | Expert system  |              |
|    | b)         | Advantages of knowledge acquisition  |              |
|    | c)         | Learning by induction (2×8=  | =16)         |
|    |            |  |              |

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7E 4241

B.Tech. VII Semester (Back) Examination, Dec. - 2015

Computer Engg.

7CS5(O) Computer Graphics & Multimedia Techniques

Common to CS&IT

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly).

## Unit - I

- 1. a) Rasterize circle points using mid point circle algorithm, given r = 8 and  $(x_0, y_0)$  at (4,4)
  - b) Explain beam penetration method of displaying colors. Differentiate it with shadow mask method. (10)

#### OR

- 1. a) Can random scan system display realistic shaded scan? Explain the architecture of random scan system. (8)
  - b) Explain:
    - i) Video controller
    - ii) Flat panel Display

(4+4)

#### Unit - II

**2.** a) Derive a formula to rotate a point by  $\theta^0$ 

(8)

b) Explain prospective projection and vanishing point with examples

(8)

## OR

- **2.** Write short notes on :
  - i) Boundary filling
  - ii) Inverse Transformation

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|    | iii) | Point clipping  |                     |
|----|------|---|---------------------|
|    | iv)  | Reflection  | $(4 \times 4 = 16)$ |
|    | ,    | Unit - III  |                     |
| 3. | a)   | Write a program that calculates parameters A, B, C and D for any plane surface defining an object.                                | (0)                 |
|    | b)   | What are Bezier cubic curves? Derive their properties. Also show sum of blending functions in identical to 1 for all values of K. | that the<br>(10)    |
|    |      | OR  |                     |
| 3. | a)   | Explain Z buffer algorithm for hidden surface elimination.  | (8)                 |
|    | b)   | Write scan line algorithm.  | (8)                 |
|    | ,    | Unit - IV   |                     |
| 4. | Exţ  | plain the following   |                     |
|    | i)   | Ray tracing Algorithm   |                     |
|    | ii)  | Diffuse Reflection  |                     |
|    | iii) | RGB color model   |                     |
|    | iv)  | Phong shading   | $(4 \times 4 = 16)$ |
|    |      | OR  |                     |
| 4. | a)   | What is the difference between tones and tints? Explain.  | (6)                 |
|    | b)   | Write an algorithm for transformation of HSV values to correspovalues.  | nding RGB<br>(10)   |
|    |      | Unit - V  |                     |
| 5. | a)   | Explain multimedia communication architecture with diagram.   | (8)                 |
|    | b)   | What is MIDI? Explain.  | (8)                 |
|    |      | OR  |                     |
| 5. | a)   | Explain the use of compression technique in computer Graphics   | . (8)               |
|    | b)   | Describe Hardware components of multimedia.   | (8)                 |

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B.Tech. VII Semester (Back) Examination, Nov/Dec - 2015 Computer Engg.

7CS1 (O) Software Project Management

Time: 3 Hours

Maximum Marks: 80

(8)

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.)

## Unit - I

- 1. a) Define Project. Explain different stages of Project
  - b) What do you mean by management spectrum? Explain W<sup>5</sup>HH principle in detail. (8)

## OR

- 1. a) Explain size oriented and function oriented matrices in detail. (8)
  - b) How will you integrate matrices within software program? Write down the guidelines for effective software matrices program. (8)

## Unit - II

- 2. a) Explain project planning process. Also explain different types of resources
  (8)
  - b) What do you mean by feasibility? Explain various feasibility factors associated with software development. (8)

5.

# OR

| 2.  | <b>a</b> ) | Explain the steps of software project estimation                                  | (8)     |  |  |  |
|---|------------|---|---------|--|--|--|
|   | l>)        | Write down the difference between FP estimation and LOC estimation.               | (8)     |  |  |  |
| Unit - III  |            |   |         |  |  |  |
| 3.  | a)         | Define Project scheduling. Write down the basic principles of Project scheduling. | ect (8) |  |  |  |
|   | b)         | Explain the following   |         |  |  |  |
|   |            | i) Earned value analysis  |         |  |  |  |
|   |            | ii) Risk management and monitoring (2×4   | =8)     |  |  |  |
| OR  |            |   |         |  |  |  |
| 3.  | a)         | Explain Quality process planning and defect prevention planning in detail         | l.(8)   |  |  |  |
|   | b)         | Explain procedural and quantitative approaches to quality management              | (8)     |  |  |  |
| Unit - IV   |            |   |         |  |  |  |
| 4. Define Software Quality. Explain Software Quality concept and its factors in detail.  (16) |            |   |         |  |  |  |
| OR  |            |   |         |  |  |  |
| 4   | . a)       | Explain Software quality assurance in detail.                                     | (8)     |  |  |  |
|   | b          | Explain SCM process in detail.  | (8)     |  |  |  |

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## Unit - V

- 5. a) What is review process? Explain the stages of group review process in detail.
  (8)
  - b) Explain the following:
    - i) Analysis and control guidelines
    - ii) NAH syndrome

 $(2 \times 4 = 8)$ 

## OR

- 5. a) Explain project tracking, Activity tracking, defect tracking and issue tracking (8)
  - b) What is the role of closure analysis? Explain closure analysis report. (8)

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B. Tech. VII Semester (Old Back) Examination, Dec. - 2015 Computer Science & Engineering 7CS2(O) Wireless Communication & Networks CS, IT

Time: 3 Hours

Maximum Marks: 80

Min. Passing Marks: 24

## Instructions to Candidates:

Attempt any five questions, selecting one question from each unit. All questions carry equal marks. (Schematic diagrams must be shown wherever necessary. Any data you feel missing suitably be assumed and stated clearly. Units of quantities used/calculated must be stated clearly.

#### Unit - I

- Discuss Application of mobile Communication and Radio System around the 1. world with suitable example of wireless communication. (8)
  - **b**) Explain the concept of frequency Reuse in detail.

(8)

- 1. Explain the techniques used for the improvement of coverage and capacity in a) cellular systems. (8)
  - b) What are the effects of Multigraph propagation? Also explain transmission impairments (8)

## Unit - II

2. a) Explain the need for specialized MAC in brief

(8)

b) Explain hidden and exposed, near and far terminal in detail.

(8)

## OR

- 2. What is GSM? Discuss system Architecture of GSM and mobile services.(8) a)
  - b) Explain the concept of localization and calling.

**(8)** 

## Unit - III

١. Describe the design goals; advantages and Disadvantages of wireless LAN 1)

(8)

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**(1)** 

Contd....

|    | b) | Explain infrared v/s radio transmission.  | (8)               |
|----|----|---|-------------------|
|    |    | OR  |                   |
| 3. | a) | Explain link Manager protocol in detail also explain L2CAP                            | (8)               |
|    | b) | Which standards are followed by Bluetooth discuss in brief? Also exp base band layer. | lain<br>(8)       |
|    |    | Unit - IV   |                   |
| 4. | a) | Define mobile IP? Discuss its goal and requirement of mobile IP.                      | (8)               |
|    | b) | Discuss the terms Tunneling and encapsulation, reverse tunneling, and in brief        | DHCP (8)          |
|    |    | OR  |                   |
| 4. | a) | Explain mobile Adhoc network usage and routing in detail.                             | (8)               |
|    | b) | Explain the concept of fast retransmit/fast recovery and transmission.                | (8)               |
|    |    | Unit - V  |                   |
| 5. | a) | Describe the file systems which support for mobility in w communication.              | ireless<br>(8)    |
|    | b) | Explain wireless datagram protocol and wireless transport layer secur detail.         | ity in <b>(8)</b> |
|    |    | OR  |                   |
| 5. | a) | Discuss the wireless application environment and markup language.                     | (8)               |
|    | b) | Write short note on   |                   |
|    |    | i) Push / pull services.  | •                 |
|    |    | ii) Wireless Session Protocol   | 4×2=8)            |