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7E7031

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7E7031

B. Tech. VII Sem. (Main/Back) Exam., Nov.- Dec. - 2017
Computer Science & Engineering
7CS1A Cloud Computing

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL

2. NIL

UNIT-I

Q.1 (a) What are the Ethical Issues in cloud computing? [8]

(b) What is ubiquitous computing? Also explain the ubiquitous cloud concept? [8]

OR

Q.1 (a) Explain the Internet of Things (IOT) and the use of the RFID in the cloud computing for pruned IOT? [8]

(b) What do you mean by problem of many hands in cloud computing? [8]

UNIT-II

Q.2 (a) Differentiate between public, private and hybrid cloud according to their functionality. [8]

(b) How the Hadoop Mapreduce works? Explain working of Map Reduce. [8]

OR

Q.2 (a) What is need of data centers? Explain by providing case study of any industry/organization where data center is used. [8]

(b) What are the high level languages that can be used in cloud computing programming? Explain. [8]

UNIT-III

Q.3 (a) What do you mean by hypervisor? Explain types of hypervisors. [8]

(b) Explain the difference between emulation, native virtualization and host virtualization? [8]

OR

Q.3 (a) What are the different types of virtualization? [8]

(b) What is the difference between KVM and Xen? [8]

UNIT-IV

Q.4 (a) "Cloud Computing provide zero-day start & stop functionality?" how it is possible? Explain. [8]

(b) What do you mean by trusted cloud computing? Explain its architecture. [8]

OR

Q.4 Write Short note on:-

(a) Vendor lock in [4]

(b) Isolation failure [4]

(c) Compliance and legal risks [4]

(d) Responsibility ambiguity [4]

UNIT-V

Q.5 (a) What do you mean by SLA? Explain elements of SLA. [8]

(b) Explain the phases of service level agreement. [8]

OR

Q.5 Write short note on:-

(a) Pats breaches [4]

(b) Account hijacking [4]

(c) Denial of services [4]

(d) Insufficient due diligence. [4]

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7E7032

Roll No. _____ Total No of Pages: 3

7E7032

B. Tech. VII Sem. (Main/Back) Exam., Nov. – Dec. - 2017
Computer Science & Engineering
7CS2A Information System Security
CS, IT

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) Explain the DES Algorithm in detail. What is the block size, cipher key size and round key size in DES? [10]

(b) Explain the various security policies, attacks, mechanism. [6]

OR

Q.1 (a) Encrypt the message "secret message" using Vigenere cipher with the key KLAS (hint: Vigenere cipher uses repetitive key stream to encrypt a message). [8]

(b) Explain the transposition ciphers and substitution ciphers in details. [8]

UNIT-II

Q.2 What are characteristic of symmetric key cryptosystem? Explain the AES algorithm in detail. [16]

OR

Q.2 Explain the S-Box design criteria. Write the steps of RC6 stream algorithm and explain in detail [16]

UNIT-III

Q.3 (a) Explain the RSA algorithm in detail. In RSA, prime numbers p=19, q = 23, and e = 3 are given. Find n, ∅(n), and d. [10]

(b) Explain the process of distribution of secret keys using public key cryptosystem. [6]

OR

Q.3 (a) Explain the discrete logarithms problem. [4]

(b) What is the use of Diffie - Hellman key exchange algorithm? Explain the Diffie - Hellman algorithm in detail. [8]

(c) Explain the process of distribution of secret keys using X.509 certificate. [4]

UNIT-IV

Q.4 (a) What is the use of Hash function in digital signature? Explain the MD5 message digest algorithm? [10]

(b) Explain the secure Hash Algorithm (SHA) in detail. [6]

OR

Q.4 (a) What is the use of Digital Signature Standards (DSS)? Write the steps and proof of DSA Algorithm. [8]

(b) Alice chooses prime numbers q=101 and p=8081, primitive root $e_0 = 3$, private key d = 61, random number r = 61 and digest h (M) = 5000. Calculate the public key e_1, e_2 and signatures S_1 and S_2. [8]

UNIT-V

Q.5 (a) Explain how Bob finds out what cryptographic algorithm Alice has used when he receives a PGP message from her. [6]

(b) In PGP, explain how Bob and Alice exchange the secret key for encrypting messages. [6]

(c) Describe how master secret is created from pre-master secret in SSL. [4]

OR

Q.5 (a) Define the goal of each phase in the handshake protocol. [8]

(b) What is the risk of using short – length keys in SSL? What type of attack can an intruder try if the keys are short? [8]

7E7033

Roll No. _____ Total No of Pages: 3

7E7033

B. Tech. VII Sem. (Main/Back) Exam., Nov. – Dec. - 2017
Computer Science & Engineering
7CS3A Data Mining and Ware Housing
CS, IT

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) What is Data Mining? Explain its functionalities in detail. [8]

(b) Explain various Data reduction strategies of data mining to warehousing. [8]

OR

Q.1 (a) Explain the concept of Data Integration and Transformation. [8]

(b) What is Discretization and concept hierarchy generation? Explain. [8]

UNIT-II

Q.2 Explain Data generalization and Analytical characterization in detail. [16]

OR

Q.2 (a) Write and Explain Apriori algorithm. [8]

(b) Explain the Association Rules in Large Databases. [8]

UNIT-III

Q.3 What is classification and prediction? Explain various issues regarding classification and prediction in detail. [16]

OR

Q.3 (a) Write & Explain Back propagation algorithm. [8]

(b) Give advantages and disadvantages of decision tree approach over other approaches of Data-mining. [8]

UNIT-IV

Q.4 (a) Give differences between Database system and Data warehouses in detail. [8]

(b) Explain Multi dimensional Data model. [8]

OR

Q.4 (a) Explain 3-Tier architecture of Data warehousing. [8]

(b) Write short note on Data cubes and stars. [8]

UNIT-V

Q.5 (a) Explain OLAP functions and various tools associated in detail. [10]

(b) Write short note on Backup & Recovery. [6]

OR

Q.5 Write technical notes on- [4×4=16]

(a) Tuning Data Warehouse

(b) Testing Data Warehouse

(c) Data Mining Interface

(d) Data Mining Security

7E7034

Roll No. _____ Total No of Pages: 3

7E7034

B. Tech. VII Sem. (Main/Back) Exam., Nov. – Dec. - 2017
Computer Science & Engineering
7CS4A Computer Aided Design for VLSI

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) What do you understand by circuit and optimization? Explain its need and process. [8]

(b) What are the four phases of designing micro electronic chips using computer aided synthesis and optimization? Explain them. [8]

OR

Q.1 (a) Explain the design flow process of microelectronic circuit with diagram. [8]

(b) What is Moore's law? Explain the design styles for circuits. [8]

UNIT-II

Q.2 Explain ITE algorithm with an example. [16]

OR

Q.2 What is binary decision diagram? Explain ROBDD algorithm with an example. [16]

UNIT-III

Q.3 Explain ASAP and ALAP Scheduling algorithm with an example. [16]

OR

Q.3 (a) Write short note on force directed and Multiprocessor scheduling. [8]

(b) Discuss the classification of constraints and resource with suitable example. [8]

UNIT-IV

Q.4 State the principles of two level logic optimization and explain the operation on two level logic covers. [16]

OR

Q.4 (a) Explain resource sharing and resource binding. What are compatibility and conflict graphs? [8]

(b) Discuss the exact logic minimization with an example. [8]

UNIT-V

Q.5 Explain left edge algorithm with an example. [16]

OR

Q.5 Write short notes on the following:

(a) Clock routing and power routing. [8]

(b) Floor planning. [8]

7E7035

Roll No. _____ Total No of Pages: 3

7E7035

B. Tech. VII Sem. (Main/Back) Exam., Nov.- Dec. - 2017
Computer Science & Engineering
7CS5A Compiler Construction

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) Discuss data structures used by a compiler. [3]

(b) Draw and discuss phases of a compiler. [10]

(c) State the difference between compiler and Interpreter. [3]

OR

Q.1 (a) What do you understand by optimization of compiler. [4]

(b) Define ambiguity of grammar with suitable example. [4]

(c) Discuss various error recovery techniques for a lexical analysis. [4]

(d) What do you understand by loop optimization, and how it is done? [4]

UNIT-II

Q.2 Construct LALR parsing table for the following grammar: - [16]

$S \rightarrow A\ A$

$A \rightarrow a\ A \mid b$

OR

Q.2 Consider the grammar and Test whether the grammar is LL (1) or Not. [16]

$S \rightarrow \mid AB \mid \in$

$A \rightarrow \mid AC \mid O\ C$

$B \rightarrow O\ S$

$C \rightarrow 1$

UNIT-III

Q.3 Generate Three Address Code for following code:-

(a) a = b * c + b * d ; [6]

(b) if (a < b + c) [10]

a = a – c ;

c = b * c ;

OR

Q.3 Generate Three Address Code for following code:-

```
Void main ( )
{     int a ;
      a = 0 ;
while ( a < 10 ) {
      Print (a % 2 = = 0) ;
      a = a + 1;
      }
}
```

[16]

UNIT-IV

Q.4 Discuss symbol table with following subcategories:

(a) Basic operations on symbol table [5]

(b) Implementation of symbol table [8]

(c) Data structure used in symbol table [3]

OR

Q.4 Implement a symbol table with help of Hash table and functions. Also discuss how collisions are resolved in open addressing. [16]

UNIT-V

Q.5 Write short notes on following: - [8×2=16]

(a) Advantages of DAG

(b) Global Data Flow analysis

OR

Q.5 (a) Sources of optimization [8]

(b) Code Generation from DAG [8]

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Roll No. _____ Total No of Pages: 3

7E7038

B. Tech. VII Sem. (Main/Back) Exam., Nov. – Dec. - 2017
Computer Science & Engineering
7CS6.3A Data Compression Techniques

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) What is data compression and why we need it? Explain compression and reconstruction with the help of block diagram. [8]

(b) What is Kraft – Mc Millan inequality? [8]

OR

Q.1 (a) Consider a source with a six symbol alphabet a_1, a_2, a_3, a_4, a_5, a_6 with probabilities [12]

$P_1 = 0.02$

$P_2 = 0.01$

$P_3 = 0.35$

$P_4 = 0.38$

$P_5 = 0.02$

$P_6 = 0.04$

(i) Find the entropy of this source.

(ii) Find the Huffman code for this source.

(iii) Compute the expected code length of this Huffman code.

(b) How modeling and coding are related? Explain with help of example. [4]

UNIT-II

Q.2 (a) What is dictionary coding? Compare and construct LZ77 and LZ55 algorithms. [8]

(b) Discuss the different application to lossless compression. [8]

OR

Q.2 (a) Define move to front encoding? [8]

(b) Differentiate T.4 and T.6 facsimile encoding. [8]

UNIT-III

Q.3 (a) What is Lind-Ruza-Grey algorithm for vector quantization? [8]

(b) Discuss probability and linear system model for lossy coding. [8]

OR

Q.3 (a) What is scalar quantization? [8]

(b) What is a distortion criteria? [8]

UNIT-IV

Q.4 (a) Discuss differential encoding. [8]

(b) How Delta modulation can be used for speech and image coding. [8]

OR

Q.4 Write short note on any two [8+8=16]

(a) DCT

(b) DST

(c) DWHT

(d) Z – transform

UNIT-V

Q.5 (a) Discuss the basic algorithm for sub-band coding. [8]

(b) Explain multi-resolution analysis & scaling function of wavelets. [8]

OR

Q.5 Write short note on any two- [8+8=16]

(a) G.7222

(b) Design of filter bank

(c) Wavelet based compression.

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7E4241

Roll No. _____ Total No of Pages: 3

7E4241

B. Tech. VII Sem. (Back) Exam., Nov. – Dec. - 2017
Computer Science & Engineering
7CS5 (O) Computer Graphics and Multimedia Techniques

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) Describe the Raster Scan Display and Random Scan Display. [8]

(b) Explain interactive display devices in Computer Graphics. [8]

OR

Q.1 (a) Explain the DDA Line Drawing Algorithm with example. [8]

(b) Describe about the Aliasing and Anti Aliasing Techniques. [8]

UNIT-II

Q.2 (a) Describe the Translation & Scaling in 2 Dimensional Coordinate System. [8]

(b) Explain the Flood Fill Algorithm for Polygon Filling. [8]

OR

Q.2 (a) Describe Cohen – Sutherland Line Clipping Algorithm. [8]

(b) Explain General Pivot-Point Rotation in 2 dimensional Coordinate System. [8]

UNIT-III

Q.3 (a) Explain Image Space & Object Space. Describe the Depth Buffer Method. [8]

(b) Describe the Scan Line Algorithm. [8]

OR

Q.3 (a) Explain the Parametric and Non – Parametric representation of Curves. [8]

(b) Explain Bezier Curve with suitable diagram. [8]

UNIT-IV

Q.4 (a) Explain the Basic illumination Model for Rendering. [8]

(b) Describe the Phong Shading & Gourand Shading. [8]

OR

Q.4 (a) Explain the Diffuse Reflection & Specular Reflection. [8]

(b) Describe Ray Tracing & RGB Color Model. [8]

UNIT-V

Q.5 (a) Define the Multimedia & State the Components of Multimedia. [8]

(b) Describe the various File Formats. [8]

OR

Q.5 Write Short Note on the following- [4×4=16]

(a) Storage & Retrieval Technologies

(b) Animation Techniques

(c) MIDI

(d) MPEG

7E4237

Roll No. _____ Total No of Pages: 3

7E4237

B. Tech. VII Sem. (Back) Exam., Nov. – Dec. - 2017
Computer Science & Engineering
7CS1 (O) Software Project Management

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) Explain the terms project, program, portfolio and management related to project management. [10]

(b) Define a project. What are the different stages of project? [6]

OR

Q.1 (a) What is W^5HH Principle? Define its importance. [8]

(b) What do you mean by organizing a software engineering project? Explain in brief the organizing activities for software project. [8]

UNIT-II

Q.2 How is software project estimation done? What features come under this estimation? [16]

OR

Q.2 What is empirical estimation? Explain COCOMO with the help of appropriate example. [16]

UNIT-III

Q.3 (a) What is Product Scheduling? Explain earned value analysis related to project scheduling. [10]

(b) What is used of tasks set and tasks network? Explain with example. [6]

OR

Q.3 (a) Explain earned value analysis in brief. [8]

(b) Differentiate between Reactive v/s Proactive risk strategies. [4]

(c) How are risks identified? [4]

UNIT-IV

Q.4 Explain Software quality in detail. [16]

OR

Q.4 Explain the following: [4×4=16]

(a) SQA Architecture

(b) SCM Process

(c) Formal Technical Reviews

(d) Software Configuration Management Repository

UNIT-V

Q.5 (a) Explain Controlling Changes to a project requirement. [8]

(b) What is NAH Syndrome? How can organization overcome from the NAH Syndrome? [8]

OR

Q.5 Short notes on: [4×4=16]

(a) Closure analysis

(b) Review process

(c) Monitoring causality

(d) Risk related monitoring

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7E4238

Roll No. _____ Total No of Pages: 3

7E4238

B. Tech. VII Sem. (Back) Exam., Nov. – Dec. - 2017
Computer Science & Engineering
7CS2 (O) Wireless Communication & Networks
CS, IT

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) Differentiate between 2G and 3G networks. What factors have caused the need to determine 3G? [8]

(b) What do you understand by the term crosstalk? Explain their different types. [8]

OR

Q.1 (a) What is Handoff? What do you understand by the terms: Soft hand off, Hard hand off, and Umbrella cell handoff approach? [8]

(b) Explain the concept of cell cluster. Also explain cell splitting and cell sectoring. [8]

UNIT-II

Q.2 (a) What is CSMA? Differentiate between collision detection and collision avoidance. [8]

(b) With the help of a diagram explain the working of GPRS. [8]

OR

Q.2 (a) Explain the concept of GSM system. Also explain its key features & services. [8]

(b) Explain VLR & HLR database approach in GSM. How does this approach limit the scalability among moving users? Where they are physically located? [8]

UNIT-III

Q.3 (a) Explain the IEEE 802.11 MAC data frame structure. [8]

(b) What are infrastructure & ad-hoc based networks? Also differentiate between them. [8]

OR

Q.3 (a) What is Bluetooth technology? Explain the IEEE 802.15.1 Bluetooth frame format. [8]

(b) Discuss all the security modes and security levels in Bluetooth technology. [8]

UNIT-IV

Q.4 (a) Explain the concept of mobile IP. List the entities of mobile IP and also describe the data transfer from mobile node to a fixed node. [8]

(b) What is DHCP? Explain the basic DHCP configuration and its application. [8]

OR

Q.4 (a) Explain the concept of Mobile TCP. Also explain Indirect TCP and snooping TCP. [8]

(b) Briefly explain AODP protocol. How is it different from distance vector protocol? [8]

UNIT-V

Q.5 (a) What is World Wide Web? Briefly explain its architectural model. [8]

(b) Discuss file systems in mobile environment. Briefly explain the coda file system. [8]

OR

Q.5 (a) What is Wireless Application Protocol? Explain the components and interface of the WAP 1.× architecture. [8]

(b) Write notes on the following terms: HTTP and HTML [8]

7E7052

Roll No. _____ Total No of Pages: 3

7E7052

B. Tech. VII Sem. (Main/Back) Exam., Nov. – Dec. - 2017

Information Technology

7IT4A Internet Programming

Time: 3 Hours **Maximum Marks: 80**

Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) Write the XHTML code for below given diagram using the attributes of WIDTH, ALIGN, BORDER, and CELLPADDING of the <TABLE> tag. [8]

Employee Information

Name	Bill Gates
Telephone	55577854
	55577855

(b) What is CSS Box Model? Explain with suitable example. [8]

OR

Q.1 Explain the following with example-

(a) Order and Unordered list [8]

(b) External style sheet [8]

UNIT-II

Q.2 (a) What is Java script? Explain the Advantages of Java Scripts. [8]

(b) Write a Java script program to find the greatest integer number among three numbers using function and math object. Integer numbers should be read from keyboard. [8]

OR

Q.2 (a) What is Document Type Definition (DTD)? How is it useful for validating XML? Explain with suitable example. [8]

(b) Write short notes on-

(i) DOM [4]

(ii) RSS [4]

UNIT-III

Q.3 (a) Describe the difference between traditional web applications and Ajax based web applications. [8]

(b) Explain an example of Ajax using the XML Http Request Object. [8]

OR

Q.3 Write down about the following-

(a) Client side scripting versus server side scripting. [8]

(b) Dojo toolkit [8]

UNIT-IV

Q.4 (a) What do you mean by cookies? Explain the uses of cookies in web applications. [8]

(b) Write a PHP program to store page view count in session, to increment the count on each refresh, and to show the count on web page. [8]

OR

Q.4 (a) What is ASP.NET? What is the basic difference between ASP and ASP.NET? Explain the provider model for ASP.NET 2.0. [8]

(b) How connectivity to a database is performed in ASP.NET? Explain all the steps. [8]

UNIT-V

Q.5 Explain the process of creating and running applications in Net Beans. [16]

OR

Q.5 Write short notes on following-

(a) Session tracking in java web technology [8]

(b) JSF components [8]

7E7053

Roll No. _____ Total No of Pages: 3

7E7053

B. Tech. VII Sem. (Main/Back) Exam., Nov. – Dec. - 2017
Information Technology
7IT5A Computer Graphics & Multimedia Techniques

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) What is graphics? Explain the Raster Scan Display System with diagram. [8]

(b) Explain programmer's model for interactive graphics & also explain the problems in geometry. [8]

OR

Q.1 (a) What is Bresenham's line generation algorithm? Explain. [8]

(b) Explain Aliasing & Anti Aliasing algorithm. [8]

UNIT-II

Q.2 (a) What is clipping? Explain polygon clipping. [8]

(b) What is translation, rotation & scaling? Explain with examples. [8]

OR

Q.2 (a) Write down composite transformation & inverse transformation. [10]

(b) Explain Boundary filling in detail. [6]

UNIT-III

Q.3 (a) Explain the Depth Buffer Method. [6]

(b) Write down Scan Line Algorithm & Area Based Algorithm in brief. [10]

OR

Q.3 (a) What is Bexier curves? Define B – Spline curve in brief. [8]

(b) What is the meaning of parametric & non parametric representation of curves? [8]

UNIT-IV

Q.4 (a) What is the basic model of illumination model & diffuse reflection? Explain. [8]

(b) Explain in brief color models with examples. [8]

OR

Q.4 Write short note on :

(a) Ray tracing algorithms [4]

(b) Half zoning [4]

(c) HSV color model [4]

(d) Phone shading [4]

UNIT-V

Q.5 (a) What is multimedia input / output technologies? Explain. [8]

(b) Which type of considerations in Architectural & telecommunication? [8]

OR

Q.5 (a) Explain Animation & animation techniques. [8]

(b) What is MPEG & JPEG? Explain. [8]

7E7054

Roll No. _____ Total No of Pages: 3

7E7054

B. Tech. VII Sem. (Main/Back) Exam., Nov. – Dec. - 2017
Information Technology
7IT6.2A Intelligent Systems

Time: 3 Hours **Maximum Marks: 80**
Min. Passing Marks: 26

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.

Use of following supporting material is permitted during examination. (Mentioned in form No. 205)

1. NIL 2. NIL

UNIT-I

Q.1 (a) What do you understand by Intelligent system? What are the various intelligent systems available and how are these different from conventional computing? [8]

(b) Explain knowledge organization and manipulation. [8]

OR

Q.1 Define LISP and PROLOG. Discuss their significance in machine learning, various advantages and disadvantages while studying intelligent systems. [16]

UNIT-II

Q.2 (a) Explain Fuzzy logic and Natural language computations. [8]

(b) What do you understand by inference rules? Explain non- deductive inference model. [8]

OR

Q.2 (a) Explain Probabilistic learning in detail. [8]

(b) What are the conventional methods of knowledge representation? State and explain various rules for representation. [8]

UNIT-III

Q.3 Discuss various structures and strategies for State Space Search. [16]

OR

Q.3 What do you understand by Knowledge Organization and Management? Explain in detail. [16]

UNIT-IV

Q.4 What do you understand by Knowledge System Architecture? State and explain in detail. [16]

OR

Q.4 (a) Explain Non Production Rules [8]

(b) Explain Uncertainty Knowledge [8]

3-1

UNIT-V

Q.5 (a) What do you understand by knowledge acquisition? Explain in detail. [8]

(b) What is knowledge acquisition bottleneck? Explain. [8]

OR

Q.5 (a) What do you understand by learning by induction? Explain its purpose. [8]

(b) Explain Inductive learning methods and learning decision trees. [8]
