7E7031

Roll No. _____ Total No of Pages: 2

7E7031

B. Tech. VII Sem. (Main) Exam., Nov.-Dec.-2016
Computer Science & Engineering
7CS1A Cloud Computing

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main : 26
Min. Passing Marks Back: 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.
Use of following supporting material is permitted during examination.
(Mentioned in form No. 205)

1. NIL 2. NIL

UNIT – I

Q.1 What is cloud computing? Give and explain the challenges, risk and approaches of migration into cloud. [16]

OR

Q.1 (a) Write and explain the ethical issues of cloud computing in detail. [8]

(b) Write short note on ubiquitous cloud and internet of things. [8]

UNIT – II

Q.2 Give and explain the cloud reference model, along with its layers and types of clouds. [16]

OR

Q.2 (a) Give architectural design of compute and storage clouds. [10]

(b) Write short note on fractures of cloud programming. [6]

UNIT – III

Q.3 What is virtualization technology? Explain implementation level of virtualization along with benefits of virtualization. [16]

OR

Q.3 Write short notes on the following:

(a) Virtual cluster and resource management [8]

(b) Virtualization of data-center. [8]

UNIT – IV

Q.4 Explain cloud security services along with design principles and security challenges in detail. [16]

OR

Q.4 Explain data security in cloud in contrast to the following:

(a) SLA (Service Level Agreements) [6]

(b) Risk Mitigation [5]

(c) Trust Management [5]

UNIT – V

Q.5 Write short notes on following (any two): [8×2=16]

(a) Cloud application platform – Integration of private and public cloud

(b) CRM and ERP

(c) Cloud scientific application

(d) Third party cloud services

7E7032

Roll No. _____ Total No of Pages: 3

7E7032

B. Tech. VII Sem. (Main) Exam., Nov.-Dec.-2016
Computer Science & Engineering
7CS2A Information System Security

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

Min. Passing Marks Main : 26

Min. Passing Marks Back: 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.

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 key principles of security with suitable example. [8]

(b) What do you understand by active and passive attacks? Explain with suitable example. [8]

OR

Q.1 (a) Differentiate the 'confusion' and 'diffusion'. Also explain their significance to make encryption secure. [6]

(b) Explain the parameters and design choices determines real algorithm of Feistel cipher? Explain Fesitel decryption algorithm. [10]

UNIT – II

Q.2 (a) Explain the importance of one-time initialization process. Describe each steps of AES algorithm. [10]

(b) What do you understand by propagation and nonlinearity? Explain with example. [6]

OR

Q.2 (a) What is S-box? Why is it important? What are the design criteria in the S-box structure? [8]

(b) Write short note on followings-

(i) Bent Functions with example [4]

(ii) Construction of balanced functions [4]

UNIT – III

Q.3 (a) Explain the working of public key cryptosystem. [6]

(b) Write an RSA Algorithm. In RSA, given N=133 and the encryption Key (E)=5, find the corresponding private key and public key. [10]

OR

Q.3 (a) Explain X.509 standard and what role certificate authority play in it. [8]

(b) Explain the working of Diffie-Hellman key exchange algorithm with suitable example. Also explain difficulties in using Diffle-Hellman key exchange algorithm. [8]

UNIT – IV

Q.4 (a) What is massage authentication? Explain massage authentication using a Message Authentication Code. (MAC.) [8]

(b) Define hash function? Explain working of SHA-512 (Secure Hash Algorithm). [8]

OR

Q.4 (a) Explain important aspects that establishes trust in digital signature. [8]

(b) What is digital signature? Show how signing and verification is done using DSS (Digital Signature Standard). [8]

UNIT – V

Q.5 (a) Explain security modes of services in IP security? Explain each of them. [8]

(b) What is IP Security? Explain the authentication header in detail. [8]

OR

Q.5 Explain following protocols in detail.

(a) Lamport's Hash [8]

(b) Encrypted Key Exchange (KEK) [8]

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7E7033

Roll No. _____ Total No of Pages: 2

7E7033

B. Tech. VII Sem. (Back) Exam., Nov.-Dec.-2016
Computer Science & Engineering
7CS3A Data Mining and Warehousing

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main : 26
Min. Passing Marks Back: 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.

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

1. NIL 2. NIL

UNIT – I

Q.1 (a) Describe Data Integration and Transformation in detail. [10]

(b) Write short note on Dimensionality reduction. [6]

OR

Q.1 What is Date Mining and Warehousing? Explain the forms of Data Preprocessing along with Data Cleaning. [16]

UNIT – II

Q.2 Explain the concepts of Data Association and Data Generalization in detail along with analysis of attribute relevance. [16]

OR

Q.2 Explain following:

(a) Association Rule Mining [8]

(b) Statistical Measures in large databases [8]

UNIT – III

Q.3 Write the concept of classification and prediction along with various issues with them. [16]

OR

Q.3 (a) Explain density based method in cluster analysis. [8]

(b) Explain various categories of clustering methods. [8]

UNIT – IV

Q.4 (a) Write and explain the differences between database systems and data warehouse. [8]

(b) Explain Multidimensional Data Model in detail. [8]

OR

Q.4 Write short notes on:

(a) Data Cubes [4]

(b) Fact Constellations [4]

(c) Concept hierarchy [4]

(d) Process Architecture [4]

UNIT – V

Q.5 Explain OLAP Servers along with OLAP function and tools in detail. [16]

OR

Q.5 (a) Differentiate ROLAP, MOLAP & HOLAP in detail. [8]

(b) Explain the concept of Tuning Data Warehouse & Testing Data Warehouse [8]

7E7034

Roll No. _____ Total No of Pages: 2

7E7034

B. Tech. VII Sem. (Main/Back) Exam., Nov.-Dec.-2016
Computer Science & Engineering
7CS4A Computer Aided Design for VLSI

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main : 26
Min. Passing Marks Back: 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.

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

1. NIL 2. NIL

UNIT – I

Q.1 (a) Discuss classes of computational complexities in increasing order of time. [6]

(b) Explain VLSI simple design cycle [10]

OR

Q.1 Discuss various VLSI design automation tools in physical design cycle. [16]

UNIT – II

Q.2 Explain how ROBDD is used in logic synthesis. [16]

OR

Q.2 Discuss breadth-first search algorithm with the help of suitable example. [16]

UNIT – III

Q.3 Discuss resource constrained scheduling algorithm with all its assumptions. Take suitable example to demonstrate. [16]

OR

Q.3 Discuss following scheduling with the help of suitable diagrams-

(a) ASAP [8]

(b) ALAP [8]

UNIT – IV

Q.4 Discuss Quine - McCluskey algorithm for two-level logic minimization problem. [16]

OR

Q.4 Write short notes on following -

(a) Binding Variable to Registers [8]

(b) Functions with Multivalued Logic [8]

UNIT – V

Q.5 Explain 'Floor plan of Order 5'. [16]

OR

Q.5 Write short notes on following –

(a) Clock Planning [8]

(b) Goals & Objectives of Global Routing [8]

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7E7035

Roll No. _____ Total No of Pages: 3

7E7035

B. Tech. VII Sem. (Main/Back) Exam., Nov.-Dec.-2016

Computer Engineering

7CS5A Compiler Construction

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main: 26
Min. Passing Marks Back: 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.

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 phases of a compiler? Explain the function of each phase in brief? [8]

(b) Describe bootstrapping is detail. [8]

OR

Q.1 (a) Define the term NFA and DFA with an example. What are the rules to get a NFA for a regular expression? [8]

(b) Construct NFA to accept a (a/b) * b. [8]

UNIT – II

Q.2 (a) What do you mean by context free grammer? Give distinction between regular and context free grammer & limitations of context free grammer. [8]

(b) Write a short note on operator precedence parsing and function. [8]

OR

Q.2 (a) Consider the following grammer to declare a list of variables. [5×2=10]

D → Type list;

Type → int/float

List → id, tlist

Tlist → id, tlist/E

(i) Construct the FIRST and FOLLOW sets for the grammer.

(ii) Construct a predictive parsing table for the grammer.

(b) Give the model for LR parser & explain its actions. [6]

UNIT – III

Q.3 (a) Write syntax directed definition for a given assignment statement. [8]

S → id = E

E → E + E

E → E * E

E → -E

E → (E)

E → id

(b) Write the specification of a simple type checker with example. [8]

OR

Q.3 Translate the arithmetic expression. [4×4=16]

(a + b) * (c + d) + (a + b + c) into

(a) Syntax tree

(b) Three address code

(c) Quadruple

(d) Triples

UNIT – IV

Q.4 (a) Explain the symbol table management system. [8]

(b) Differentiate between stack allocation and heap allocation. [8]

OR

Q.4 Write a short note on . [8×2=16]

(a) Activation Record

(b) Parameter Parsing

UNIT – V

Q.5 Write a short note on - [4×4=16]

(a) Code optimization

(b) Flow graph

(c) Basic block

(d) DAG

OR

Q.5 Generate code for the following C statements for the simple/target machine assuming all variables are static and three register are available. [16]

(a) x = a [i] + 1

(b) a [i] = b [c[i]]

(c) a [i] = a [i] + b [j]

(d) a [i] + = b [j]

7E7038

Roll No. _____ Total No of Pages: 3

7E7038

B. Tech. VII Sem. (Main/Back) Exam., Nov.-Dec.-2016
Computer Engineering
7CS6.3A Data Compression Techniques

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main: 26
Min. Passing Marks Back: 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.

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

1. NIL

2. NIL

UNIT – I

Q.1 (a) Give a brief description of various data models for lossless compression? [8]

(b) How rice code can be viewed? Explain the implementation of the rice code in the recommendation for loss less compression from the consultative committee on space data standards (CCSDS). [8]

OR

Q.1 (a) A source emits letters from an alphabet A = $\{a_1, a_2, a_3, a_4\}$ with probabilities $P(a_1) = ½$, $P(a_2) = 1/4$, $P(a_3) = 1/8$ and $P(a_4) = 1/8$. [5×2=10]

(i) Find the Huffman code

(ii) Find the average length of the Huffman code.

(b) What are the measures of performance of data compression algorithm? [6]

UNIT – II

Q.2 (a) A sequence is encoded using the LZW algorithm. And the initial dictionary shown in table. [8×2=16]

Index	Entry
1	a
2	b
3	h
4	i
5	s
6	t

(i) The output of the LZW encoder is the following sequence.

6, 3, 4, 5, 2, 3, 1, 6, 2, 9, 11, 16, 12, 14, 4, 20, 10, 8, 23, 13

Decode this sequence.

(ii) Encode the decoded sequence using the same initial dictionary? Does your answer match the sequence given above?

OR

Q.2 (a) Explain the run length encoding technique with the help of suitable example. [8]

(b) Explain burrows wheeler transform and move to front coding. [8]

UNIT – III

Q.3 (a) What is rate distortion criterion? Explain the rate distortion function for binary source and Gaussian source. [8]

(b) What do you mean by Quantization? Differentiate between uniform Quantization and non uniform Quantization. [8]

OR

Q.3 (a) What is vector Quantization? Explain the basic steps for Linde – Buzo – Gray algorithm. [8]

(b) Explain the forward and backward adoptive Quantization in detail. [8]

UNIT – II

Q.2 (a) A sequence is encoded using the LZW algorithm. And the initial dictionary shown in table. [8×2=16]

Index	Entry
1	a
2	b
3	h
4	i
5	s
6	t

(i) The output of the LZW encoder is the following sequence.

6, 3, 4, 5, 2, 3, 1, 6, 2, 9, 11, 16, 12, 14, 4, 20, 10, 8, 23, 13

Decode this sequence.

(ii) Encode the decoded sequence using the same initial dictionary? Does your answer match the sequence given above?

OR

Q.2 (a) Explain the run length encoding technique with the help of suitable example. [8]

(b) Explain burrows wheeler transform and move to front coding. [8]

UNIT – III

Q.3 (a) What is rate distortion criterion? Explain the rate distortion function for binary source and Gaussian source. [8]

(b) What do you mean by Quantization? Differentiate between uniform Quantization and non uniform Quantization. [8]

OR

Q.3 (a) What is vector Quantization? Explain the basic steps for Linde – Buzo – Gray algorithm. [8]

(b) Explain the forward and backward adoptive Quantization in detail. [8]

UNIT – IV

Q.4 (a) Find the Z- transform for the following sequences: [5×2=10]

(i) $hn = 2^{-n} u[n]$, where u [n] is the unit step function

(ii) $hn = (n^2-n) 3^{-n} u[n]$

(b) What are transforms? Explain DCT with suitable diagram. Mention its advantages. [6]

OR

Q.4 (a) Explain the concept of Adaptive DPCM in detail. [8]

(b) Explain various types of delta modulation in detail. [8]

UNIT – V

Q.5 (a) Explain Multi – resolution analysis and the scaling function of wavelets. [8]

(b) Explain the basic sub band coding algorithm. [8]

OR

Q.5 Write a short note on: [8×2=16]

(i) Filters

(ii) MPEG

8/12

7E4238

Roll No. _____ Total No of Pages: 3

7E4238

B. Tech. VII Sem. (Back) Exam., Nov.-Dec.-2016
Computer Engineering
7CS2 (O) Wireless Communication & Networks

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main : 26
Min. Passing Marks Back: 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.

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

1. NIL 2. NIL

UNIT – I

Q.1 (a) Explain Handoff management in mobile data communication with suitable diagram. [8]

(b) List out the advantages and disadvantages of Infrared and Radio Wave communication. [8]

OR

Q.1 (a) What is multipath and fading? Explain the effect of fading and multipath propagation in mobile communication. [10]

(b) Compare 1G, 2G and 3G. [6]

UNIT – II

Q.2 (a) 'The frequency reuse concept led to the development of cellular technology'. Explain the essential characteristics of this reuse of frequency with respect to GSM. [8]

(b) Differentiate between Hidden node problem and Exposed node problem in wireless communication. How it can be solved? [8]

OR

Q.2 (a) How is localization, location update, roaming etc done in GSM and reflected in the data bases? What are the typical roaming scenarios? [8]

(b) Explain GPRS Architecture Reference Model with suitable diagram. [8]

UNIT – III

Q.3 (a) Describe the important features of wireless LAN technology. [8]

(b) Explain Bluetooth protocol stack with suitable diagram. [8]

OR

Q.3 (a) Explain the terms with respect to IEEE 802.11 LAN standard - [10]

(i) Station

(ii) Access Point

(iii) Basic Service Set

(iv) Distributed System

(v) Extended Service Set

(b) Compare Ad-HOC and Infrastructure mode of WLAN. [6]

UNIT – IV

Q.4 (a) In mobile IP, how data will be routed if mobile node moves to foreign network? Explain with suitable diagram. [8]

(b) What are the differences between **AODV** and standard distance vector algorithm? [8]

OR

Q.4 (a) Explain the following terms with respect to mobile IP entities - [8]

(i) Home Network

(ii) Home Address

(iii) Foreign Agent

(iv) Home Agent

(b) Explain the following terms with respect to mobile transport layer - [8]

(i) Snooping TCP

(ii) Selective Retransmission

(iii) Implications of Mobility in Traditional TCP

(iv) Transmission / Time-Out Freezing

UNIT – V

Q.5 (a) Which properties of HTTP waste Bandwidth? What is additional problem using HTTP 1.0 together with TCP? How does HTTP 1.1 improve the situation? [10]

(b) What is WAP push? How is push different from pull? [6]

OR

Q.5 Write short notes on the following (any four) - [4×4=16]

(a) WWW

(b) WML Script

(c) Wireless Application Environment

(d) MIO – NFS

(e) WAP (Wireless Application Protocol)

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7E4241

Roll No. _____ Total No of Pages: 3

7E4241

B. Tech. VII Sem. (Back) Exam., Nov.-Dec.-2016

Computer Science & Engg.

7CS5 (O) Computer Graphics and Multimedia Techniques

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

Min. Passing Marks Main : 26

Min. Passing Marks Back: 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.

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 frame buffer? The display area of video monitor is given as 12"×9.6". If resolution is 280×1024, what is the diameter of each pixel? (Given Aspect ratio = 1 and 1" = 2.54cm) [3+5=8]

(b) Explain basic principle to draw circle. Also explain mid – point circle algorithm. [4+4=8]

OR

Q.1 (a) Explain Bresenham's line drawing algorithm. Give its advantages over DDA algorithm. Also write procedure in any programming language. [3+2+3=8]

(b) What is scan conversion? Explain Raster Scan System with help of example. [3+5=8]

UNIT – II

Q.2 (a) What is homogeneous co-ordinate? Explain translation and scaling. Give the composite transformation matrices for 2 successive translations & scaling. [3+2+3=8]

(b) Explain Cohen – Sutherland line clipping algorithm. Consider a clipping window A (0, 0), B (30, 0), C (30, 20) and D (0, 20). Using the out codes of the end points of the line X (-10, 30) and Y (35, 8) show that the line is partially visible. [5+3=8]

OR

Q.2 (a) How can polygons be clipped? Explain Sutherland – Hodgeman polygons clipping algorithm. [4+4=8]

(b) Explain General Pivot – Point Rotation and General Fixed – point Scaling. Give composite transformation matrices of each. [6+2=8]

UNIT – III

Q.3 (a) Explain properties of Bezier curve. Obtain five curve parameters for drawing a smooth Bezier curve for the following control Points. [4+4=8]

A (0, 0), B (20, 20), C (70, 10), D (80, 10)

(b) Give the classification of visible surface detection algorithms. Explain z – buffer algorithm for visible surface detection. [3+5=8]

OR

Q.3 (a) Explain interpolation spline and approximate spline. Write properties of B – spline and Bezier curves. [4+4=8]

(b) What is projection? Explain various types of parallel projection. [2+6=8]

UNIT – IV

Q.4 (a) What are diffused and specular reflections? Write down an illumination model that incorporates both these reflections. [4+4=8]

(b) Explain the RGB & CMY color models. Why is black color used in CMY model? [6+2=8]

OR

Q.4 (a) Write short note on the following: [4+4=8]

(i) Ray tracing.

(ii) Antialiasing.

(b) How can you render polygon surface using Gouraud Shading & Phong Shading? [8]

UNIT – V

Q.5 (a) What is the use of compression techniques in computer graphics? Explain JPEG. [4+4=8]

(b) Explain the structure of image file header in the TIFF files? Explain the merits and demerits of TIFF file format. [5+3=8]

OR

Q.5 (a) Write short note on the following: [4+4=8]

(i) Authoring Tools

(ii) Rich Text Formats

(b) What is animation? What are the challenges faced in its implementation? [4+4=8]

7E7051

Roll No. _____ Total No of Pages: 2

7E7051

B. Tech. VII Sem. (Main/Back) Exam., Nov.-Dec.-2016
Information Technology
7IT1A Software Project Management

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main: 26
Min. Passing Marks Back: 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.

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 mean by software project management? Explain the activities, which are to be performed in software project management. [8]

(b) Describe processes and program management Roles in detail. [8]

OR

Q.1 (a) Give the metrics for software Quality also explain how a software metrics program is established. [8]

(b) Define the management spectrum in the following terms: - [8]

(i) Process
(ii) Product
(iii) People
(iv) Project

UNIT – II

Q.2 (a) Differentiate between the COCOMO –I and COCOMO – II model. [8]

(b) What is cyclomatic complexity? Explain it. [8]

OR

Q.2 (a) Explain the following:- [4×4=16]

(i) Decomposition technique

(ii) Estimation for Agile development

(iii) Object oriented project estimation

(iv) Empirical estimation model

UNIT – III

Q.3 (a) Describe the Reactive V/S Proactive Risk strategies. [8]

(b) Discuss the project scheduling technique and illustrate their advantages and disadvantages. [8]

OR

Q.3 (a) Explain Quantitative approaches used to measure Quality with its types. [8]

(b) Write short note on quality process planning. [8]

UNIT – IV

Q.4 (a) What is SQA? Define coals of SQA. [8]

(b) What is SCM? Explain its need. [8]

OR

Q.4 Write short notes on –

(a) Software configuration management. [8]

(b) Software Quality assurances. [8]

UNIT – V

Q.5 (a) Explain Reviews and NAH syndrome? [6]

(b) Explain various tracking in project monitoring and control. [10]

OR

Q.5 Write short notes on –

(a) Project closure analysis [8]

(b) Actual versus estimated analysis of effort and schedule. [8]

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7E7052

Roll No. _____ Total No of Pages: 2

7E7052

B. Tech. VII Sem. (Main/Back) Exam., Nov.-Dec.-2016
Information Technology
7IT4A Internet Programming

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main: 26
Min. Passing Marks Back: 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.

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 Cascading Style Sheet? Describe in detail? [8]

(b) Explain XHTML & also explain W3C XHTML validation services? [8]

OR

Q.1 (a) What are the different text flow media types? Explain one in detail? [8]

(b) What do you understand by CSS3? Explain. [8]

UNIT – II

Q.2 (a) Explain Java Script in brief. How function can be declared and defined in Java Script? [8]

(b) Explain document object Model (DOM) in detail? [8]

OR

Q.2 (a) What are DTDs? Explain with suitable examples? [8]

(b) What do you mean by extensible style sheet language? Explain. [8]

UNIT – III

Q.3 (a) How do use abort the current XML http request in AJAX? [8]

(b) What do you understand by "Microsoft Internet Information Services" server? Explain. [8]

OR

Q.3 (a) What do you mean by HTTP transaction? Give 3 examples and explain. [8]

(b) Explain XML http request object with their properties and methods. [8]

UNIT – IV

Q.4 (a) What is the significance of string processor in PHP? Explain with an example. [8]

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

OR

Q.4 (a) Write down about the following : (any two) [8×2=16]

(i) Cookies in PHP

(ii) Session tracking in PHP

(iii) Operators used in PHP

UNIT – V

Q.5 (a) How JSP page translates into servlets? Describe all standard action elements and all scripting elements used in JSP? [8]

(b) Explain JSF components in detail with a suitable example? [8]

OR

Q.5 (a) Explain the following in content of JSP: [4×2=8]

(i) Request and response objects.

(ii) Directness

(b) Write short notes on : [4×2=8]

(i) Net Beans

(ii) Session Tracking

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Roll No. _____ Total No of Pages: 2

7E7053

B. Tech. VII Sem. (Main/Back) Exam., Nov.-Dec.-2016
Information Technology
7IT5A Computer Graphics & Multimedia Techniques

Time: 3 Hours

Maximum Marks: 80
Min. Passing Marks Main: 26
Min. Passing Marks Back: 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.

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

1. NIL 2. NIL

UNIT – I

Q.1 (a) Explain raster scan display system with the help of block diagram. [12]

(b) 12 inch screen has a horizontal length of 10 inches and vertical height of 7 inches. What is the aspect ratio given that the screen resolution is 640 × 350 points. [4]

OR

Q.1 (a) Draw a line segment joining (20,10) and (25,14) using Bresenham's line generation algorithm. [8]

(b) Explain beam – penetration method of displaying colors. Differentiate it with shadow mask method? [8]

UNIT – II

Q.2 (a) Explain Cohen – Sutherland line clipping algorithm with region code detail. [10]

(b) Write down flood filling algorithm for area filling. [6]

OR

Q.2 What is homogeneous coordinate? Discuss the composite transformation matrices for rotation about an arbitrary point in space and reflection about y = - x line. [16]

UNIT – III

Q.3 (a) Describe Z- buffer algorithm for visible surface detection. [10]

(b) What do you mean by image space and object space method? [6]

OR

Q.3 (a) What do you mean by geometric and parametric continuity of curves? [8]

(b) What is Bezier curves? Define blending function. [8]

UNIT – IV

Q.4 (a) Discuss about half toning. Explain in brief about RGB, CMY and HSV color models. [16]

OR

Q.4 Write a short note on – [4×4=16]

(a) Gouraud shading

(b) Phong shading

(c) Ray tracing algorithm

(d) Diffuse reflection and specula reflection.

UNIT – V

Q.5 (a) Explain authoring tools and presentation tools with example. [8]

(b) What is MPEG and IPEG? Describe their working? [8]

OR

Q.5 (a) Explain multimedia communication model? What are the major application area of multimedia? [8]

(b) Write a short note on - [8]

(i) Animation technique

(ii) TIFF

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Roll No. _____ Total No of Pages: 2

7E7054

B. Tech. VII Sem. (Main) Exam., Nov.-Dec.-2016
Information Technology
7IT6.2A Intelligent Systems

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

Min. Passing Marks Main : 26

Min. Passing Marks Back: 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.

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 artificial Intelligence? Explain how an AI system is different from a conventional computing system? [8]

(b) Why AI is related with engineering stream? Justify it with suitable example. What engineering fields are related with AI & what are their roles in AI? [8]

OR

Q.1 What are AI programming languages? Also explain knowledge organization & manipulation in detail. [16]

UNIT – II

Q.2 (a) What is knowledge representation? What are the problems facing representing knowledge? [8]

(b) What is concept of fuzzy logic and membership function in detail? [8]

OR

Q.2 (a) How fuzzy logic is different from conventional binary logic? Explain it with suitable example. [8]

(b) What is natural language computation? Explain in detail. [8]

UNIT – III

Q.3 (a) What are the controls strategies? Explain any one with example. [8]

(b) What is object oriented representation? Explain Classes, Objects, Messages and Methods. [8]

OR

Q.3 What are matching techniques in AI? Explain each technique in detail. [16]

UNIT – IV

Q.4 Rule Base System with example. [8]

t note on System Building Tools. [8]

OR

Q.4 Write short notes on :–

(a) Decision Tree Architectures [8]

(b) Black Board System Architectures [8]

UNIT – V

Q.5 (a) Define inductive learning and explain the use of inductive learning. [8]

(b) What is the purpose of inductive bias? Explain the example of an inductive learning. [8]

OR

Q.5 (a) What is Knowledge Acquisition? Explain types of learning. [12]

(b) Explain General Learning Model. [4]
