Hall Ticket Number :										

R-14

Code: 4G164

III B.Tech. II Semester Supplementary Examinations May 2018

Computer Graphics

(Common to CSE & IT)

Max. Marks: 70 Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)

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UNIT–I

1. a) Explain the application areas of Computer Graphics? 7M
   b) Discuss in detail about Random Graphics feature? 7M

OR

2. a) Explain about graphics monitors and work stations 7M
   b) Discuss in detail about Raster Graphics feature? 7M

UNIT–II

3. a) obtain the transfromation matrix for rotating an object about a specified pivot point 7M
   b) Write down and explain the midpoint circle drawing algorithm. Assume 10 cm as the radius and co-ordinate origin as the centre of the circle 7M

OR

4. a) Discuss about the reflections required for generating the complete circle using the first octant of the origin centered circle. 7M
   b) Explain two dimentional translation and scaling with an example 7M

UNIT–III

5. Explain Cohen Sutherland line clipping algorithm with an example. 14M

OR

6. Define Parametric cubic curves & Explain them with Examples? 14M

UNIT–IV

7. Differentiate parallel and perspective projections and derive their projection matrices. 14M

OR

8. With suitable examples, explain all 3D transformations 14M

UNIT–V

9. a) Write a short note on Computer animation. 7M
   b) Explain depth- buffer algorithm 7M

OR

10. a) Explain the scan line method for visible surface detection? 7M
    b) Discuss about Classification and back-face detection methods 7M

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Hall Ticket Number :										

Code: 4G162

R-14

III B.Tech. II Semester Supplementary Examinations May 2018

Cryptography and Network Security

(Common to CSE & IT)

Max. Marks: 70 Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)

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UNIT–I

1. a) Differentiate between active and passive attacks 6M
   b) What are the different security services provided by ITUT – Standardization sector and illustrate different mechanisms used to implement those services 8M

OR

2. a) Explain in brief Internet RFC publication process with diagram 6M
   b) Explain network security model with a neat diagram 8M

UNIT–II

3. a) With the help of a neat diagram, explain the data flow process in conventional encryption process 6M
   b) Explain key distribution policy used for end to end encryption (connection oriented) . 8M

OR

4. a) Discuss cipher block chaining mode with diagram in detail 8M
   b) Illustrate Design objectives of HMAC 6M

UNIT–III

5. a) Explain different authentication procedures used in X.509 6M
   b) Discuss operation of PGP 8M

OR

6. a) Differentiate between Kerberos V4 and V5 6M
   b) What is S/MIME and explain in detail 8M

UNIT–IV

7. a) With a neat diagram explain a typical scenario of IPSec usage 3M
   b) What are the different IPSec services 4M
   c) Explain Dual Signature in SET protocol 7M

OR

8. a) What selectors are used in SPD entry 6M
   b) List the different message types in SSL Handshake Protocol 8M

UNIT–V

9. a) Write short notes on
      (i) Trojan Horses
      (ii) Back Door
      (iii) Zombies 6M
   b) Explain Network Management Architecture 8M

OR

10. a) List the design goals of a firewall and what are the different types of firewalls 8M
    b) What are the different approaches to intrusion detection 6M

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Hall Ticket Number :										

R-14

Code: 4G163

III B.Tech. II Semester Supplementary Examinations May 2018

Linux Programming

(Common to CSE & IT)

Max. Marks: 70 Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)

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UNIT–I

1. a) Explain about security file permissions? 7M
   b) Explain in detail about awk? 7M

OR

2. a) Distinguish between process utilities and disk utilities? 8M
   b) Write about filters? 6M

UNIT–II

3. a) Explain about various control structures and arithmetic in shell script with examples? 6M
   b) Write a shell program to find factorial of a given number? 8M

OR

4. a) Explain in detail about shell functions? 7M
   b) What is the role of here documents in shell programming and explain about file name substitution in shell? 7M

UNIT–III

5. a) Write short notes on the following commands
      i. chown
      ii. chmod
      iii. link 6M
   b) Distinguish file locking and record locking? 8M

OR

6. a) Explain the Unix File Structure? 7M
   b) Discuss about system calls in files? 7M

UNIT–IV

7. a) What is a signal? Explain about any three signals with their syntax? 6M
   b) What is a zombie process? Explain its importance in Unix programming? 8M

OR

8. a) Explain in detail about process API's? 8M
   b) Write about kernel support for signals? 6M

UNIT–V

9. a) What are different IPC techniques? Explain? 8M
   b) Discuss about UNIX System V APIs for Semaphores? 6M

OR

10. a) Discuss about UNIX System V APIs for Shared Memory 6M
    b) Explain about the concepts of Semaphores in detail? 8M

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Hall Ticket Number :										

R-14

Code: 4G463

III B.Tech. II Semester Supplementary Examinations May 2018

Object Oriented Analysis and Design

(Common to CSE & IT)

Max. Marks: 70 Time: 3 Hours

Answer *all five* units by choosing one question from each unit (5 x 14 = 70 Marks)

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UNIT–I

1. a) What is the importance of modeling? Explain the principles of modeling.
   b) How to model a system's Architecture?

OR

2. Explain the conceptual model of the UML?

UNIT–II

3. a) What is an interface? How it is different from Package. Explain with example.
   b) With respect to UML, Explain the role of Visibility & Scope.

OR

4. a) What is use of Advanced Classes? Explain its properties.
   b) Write short notes on Object Diagrams

UNIT–III

5. a) How Collaboration diagram differs from Sequence Diagram, explain with an example
   b) What is use of Sequence Diagram and explain the important elements of Sequence Diagram?

OR

6. a) Define Use case? What are the points to be considered to model the context of a system using Use case diagram?
   b) Draw the Use case Diagram for Library Management System?

UNIT–IV

7. Write short notes on
   i) Events and Signals ii) Process and Threads iii) State Diagrams

OR

8. a) Explain the role of Process and Threads and how it is used in modeling
   b) Draw the State Chart Diagram for Library Management system

UNIT–V

9. a) Explain the purpose of Component Diagram and also explain the distribution of artifacts using Component Diagram
   b) Draw the Component Diagram for Library System

OR

10. Explain about Deployment diagram? How it is useful in modeling of an embedded system? Draw the Deployment Diagram for Library System?

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