Hall Ticket Number :										

Code: 4G163

R-14

III B.Tech. II Semester Supplementary Examinations December 2017

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) What is file? Explain different file types in LINUX. 7M
   b) How are security file permission handled in LINUX. 7M

OR

2. a) What is sed? Explain its commands and operations. 7M
   b) Illustrate the string function in awk. Explain its application. 7M

UNIT–II

3. a) Describe about shell meta characters in detail. 7M
   b) Write a shell program to check whether given number is odd or even. 7M

OR

4. a) Write a shell program to find the sum of N odd numbers. 7M
   b) Explain briefly about the shell function. 7M

UNIT–III

5. a) Explain various file library functions. 7M
   b) Discuss the importance of kernel support for files. 7M

OR

6. a) Explain with example any four file commands used in LINUX. 7M
   b) Explain the following file descriptors with an example.
      - read()
      - write()
      - open()
      - close() 7M

UNIT–IV

7. a) Explain briefly process API's. 7M
   b) Define a signal. Explain any four signal with syntax and example. 7M

OR

8. a) Explain the following:
      - Process control
      - Process termination 7M
   b) Briefly explain various signal functions. 7M

UNIT–V

9. a) What are the functions of semaphore? Explain in detail Unix system V API's for semaphore. 7M
   b) Write a note on the following:
      - Pipes
      - FIFO
      - Shared memory 7M

OR

10. a) Discuss the importance of kernel support for semaphore. 7M
    b) Explain Unix system V API's for message queues. 7M

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Hall Ticket Number :										

Code: 4G463

R-14

III B.Tech. II Semester Supplementary Examinations December 2017

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 are the advantages of Object Oriented over traditional development methodologies in Software development? 7M
   b) How USDP is different from Water Fall and Iterative Process. Explain in detail different activities in the USDP Process. 7M

OR

2. a) Differentiate between Rational Unified Process (RUP) and USDP. 7M
   b) What do you mean by Behavioral Modeling? Explain. 7M

UNIT–II

3. a) Write notes on analysis packages and dependencies along with example. 7M
   b) Discuss about different types of Cohesion and Coupling. 7M

OR

4. a) Explain why encapsulation, inheritance, and polymorphism are three important characteristics of object-oriented systems. 7M
   b) Give a detailed note on Super-sub class relationship and a-part-of relationship with an example. 7M

UNIT–III

5. a) Explain the requirements modeling through use case diagram along with example for maintenance of Library Management System activities. 7M
   b) Explain about different stereotypes used in Use Case modeling with suitable examples. 7M

OR

6. a) How analysis is different from Design? Describe the UML concepts and symbols used to draw a Class diagram. 7M
   b) Write a short note on class concepts involving Aggregation, Composition, Association and Generalization relationships. 7M

UNIT–IV

7. a) Differentiate between Activity and state explain with example. 7M
   b) What is the purpose of Activity diagrams, list out each element used in Activity diagrams along with example? 7M

OR

8. a) Explain in detail the syntax, notations and management approaches used to draw the Interaction sequence diagrams. 7M
   b) Draw a State Diagram, Activity Diagram and Package Diagram for Bank ATM System. 7M

UNIT–V

9. a) Give out the syntax and UML notation for Deployment diagram with an example. 7M
   b) Discuss about various dependencies between software components deployed in Software. 7M

OR

10. a) Explain in detail about the UML syntax and notation to draw a Component Diagram. 7M
    b) What do you mean by Pattern Catalogue? Mention pattern languages and explain in detail Analysis patterns. 7M

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Hall Ticket Number :										

R-14

Code: 4G164

III B.Tech. II Semester Supplementary Examinations December 2017

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. Discuss in detail about cathode ray tube 14M

OR

2. a) Describe about raster graphics features 7M
   b) Explain about graphics monitors and work stations 7M

UNIT–II

3. a) Explain Scan Line Polygon fill algorithm. 7M
   b) Explain two dimensional translation and scaling with an example 7M

OR

4. a) Write down and explain the midpoint circle drawing algorithm. Assume 10 cm as the radius and co-ordinate origin as the center of the circle 7M
   b) Write down about matrix representations and homogeneous coordinates 7M

UNIT–III

5. a) Discuss about Bezier and B-Spline surfaces 7M
   b) Explain about Sutherland –Hodgeman polygon clipping algorithm 7M

OR

6. Write about Cyrus-beck line clipping algorithms with example 14M

UNIT–IV

7. a) Define Projection? & Explain the different types of projections? 7M
   b) With suitable examples, explain all 3D transformations 7M

OR

8. a) Explain about view volume and clipping 7M
   b) Explain about composite transformations 7M

UNIT–V

9. a) Describe about computer animation languages, key frame systems and motion specifications 7M
   b) Explain about area sub-division and octree methods 7M

OR

10. a) Explain about Design of animation sequence, general computer animation functions 7M
    b) Discuss about Classification and back-face detection methods 7M

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