Code No.: **20524**

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)
(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
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IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, NOVEMBER-2018

Subject: <u>MOBILE COMPUTING</u>

Branch: CSE

Time: 3 hours   **Max. Marks: 75**

Answer any **FIVE** Questions of the following   **5x15M=75M**

1. a) Discuss the novel applications of mobile communication   [7M]

   b) Describe the security services offered by GSM   [8M]

2. a) Describe the system architecture of IEEE 802.11   [8M]

   b) Briefly discuss about routing in mobile Adhoc networks   [7M]

3. a) What is tunneling in mobile IP   [7M]

   b) Explain about packet Delivery and Hand over management   [8M]

4. Explain in detail about mobile TCP?   [15M]

5. a) Explain Query processing in detail   [7M]

   b) Write short note on Data recovery process   [8 m]

6. Explain about selective tuning and indexing methods?   [15M]

7. a) Explain the Applications and Challenges of MANET   [5M]

   b) Write short note on Mobile Agents and Service Discovery   [10M]

8. a) With a neat diagram Explain the WAP architecture   [7M]

   b) Write short note on Java card   [8M]

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IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, NOVEMBER-2018

Subject: **Linux Programming**

Branch: **CSE**

Time: **3 hours**　　　　　　　　　　　　　　　　　　　　　Max. Marks: **75**

Answer any **FIVE** Questions of the following　　　　　　　**5x15M=75M**

1.　a) Discuss the significance of filters and identify some filter commands of your choice. Explain them briefly.

　　b) Write a short note on du and df utilities　　　　　　　　　　　　　　[8+7]

2.　Write briefly on case control structure in bash with examples. Write briefly on " | | " operator in bash.

3.　a) Explain about UNIX Directory file API.　　　　　　　　　　　　　　[7+8]

　　b) Explain file descriptor with an example.

4.　a) What are the signals that are not ignored or blocked? Explain the reason behind it with an Example.　　　　　　　　　　　　　　　　　　　　　　　　　　[7M]

　　b) Illustrate SIGKILL and SIGINT with an example program.　　　　　　[8M]

5.　Compare IPC functionality provided by pipes and message queues. What are the advantages and drawbacks of each? Explain briefly.

6.　Explain about UNIX kernel support for the following

　　(a) Semaphores　　　　　　(b) shared memory　　　　　　　　　　　[7+8]

7.　How do you improve the performance of system using multithreading.

8.　Write the socket system calls for connection less protocol?

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IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, NOVEMBER-2018

Subject: <u>**Design Patterns**</u>

Branch: CSE

Time: 3 hours   **Max. Marks: 75**

Answer any **FIVE** Questions of the following   5x15M=75M

1. a) Describe organization of design pattern catalog. Draw a diagram to show relationships among design patterns **[8M]**

   b) What is Design pattern? How to use a design pattern **[7M]**

2. Explain in detail about Lexi's spelling checking and Hyphenation problem **[15M]**

3. a) Explain about Singleton design pattern **[8M]**

   b) How to provide an interface for creating families of related or dependent objects without specifying their concrete classes ? Explain **[7M]**

4. a) Discuss the following implementation issues of Bridge pattern:

      i) Only one implementer   ii) Sharing implementers **[7M]**

   b) List and explain any four implementation issues of Composite Pattern **[8M]**

5. a) Discuss about Flyweight design pattern **[8M]**

   b) Explain sample code and known uses of Façade design pattern **[7M]**

6. a) How to provide a way to access the elements of an aggregate object sequentially without exposing its underlying representation ? Explain **[8M]**

   b) Briefly explain about Chain of responsibility design pattern **[7M]**

7. a) What is the intention of the Strategy pattern? What is its applicability **[5M]**

   b) Assume that you are writing an algorithm. Explain with the help of an example how Template method pattern can help you, **Note:** Sample code is essential. **[10M]**

8. Explain the following

   a) Refactoring   b) Patterns in software   c) A common design vocabulary   **[5M+5M+5M]**

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IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, DECEMBER-2018

Subject: **Computer Graphics**

Branch: CSE

Time: 3 hours   Max. Marks: 75

Answer any **FIVE** Questions of the following   5x15M=75M

1. a) Provide four examples each for Input and output devices used in Computer Graphics. Briefly describe technical specifications of any one of them...?

   b) Explain CRT n detail with a neat diagram.   [8+7M]

2. a) List the data structures used in scan-line polygon fill algorithm. Illustrate the procedure with an example.

   b) Compare the flood-fill and boundary fill algorithms.   [8+7]

3. a) Briefly explain the basic 2-D geometric transformations in detail   (7M)

   b) Explain in detail about composite Transformations   (8M)

4. Explain Sutherland – Hodgeman algorithm for polygon clipping with an example.

5. a) Explain the properties of B spline curves

   b) Enumerate the steps in polygon rendering method.   [8+7]

6. a) Compute rotation matrix for rotating (x, y, z) by an angle θ about Y-axis?

   b) Write a short note on the perspective projections clearly explaining vanishing points and view volumes?   [9+6M]

7. Write about any two image space methods that are used to deal with visible surface detection   [15]

8. a) What are key frame system and how do they function? What are cels and how are they used in animation.   [8M]

   b) Write a program to generate the in-betweens for the key frame, film requires 24 Frames per seconds, and graphically terminals are refreshed at the rate of 30 to 60 frames per second, using linear interpolation.   [7+8]