

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)

Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, NOVEMBER-2019Subject: **LINUX PROGRAMMING**

Branch: CSE

Time: 3 hours

Max. Marks: 75

Answer any Five Questions of the following

5x15M=75M

1. Write the syntax of the following commands. [5+5+5]
i) Chmod ii) telnet iii) grep
2. a) Discuss about debugging shell scripts. [7+8]
b) Write a shell script to evaluate any arithmetic expression.
3. a) Explain about UNIX directory file API? [8+7]
b) Explain about file and Record locking?
4. a) Write in detail about reliable signal handling? [8+7]
b) Briefly explain about zombie process?
5. What are pipes? Explain their limitations. Explain how pipes are created and used in IPC with an example.
6. a) Explain about the semget(),semop() and semctl() functions? [8+7]
b) What are the Linux API's for shared memory?
7. a) What are the merits and demerits of multithreaded programming? [6+9]
b) Explain the relationships of threads, LWPs and hardware processes with the help of a neat diagram.
8. Explain about the following system calls? [4+4+4+3]
a) Accept b) Send c) Recv d) Shutdown

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IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, NOVEMBER-2019Subject: **DESIGN PATTERN**Branch: **CSE****Time: 3 hours****Max. Marks: 75****Answer any Five Questions of the following****5x15M=75M**

1. a) What are the design patterns? Explain how design patterns solve design related issues.[8M]
b) What do you mean by encapsulating the request, explain with example? [7M]
2. Explain in detail about Lexi's spelling checking and Hyphenation problem.
3. a) Explain implementation and sample code of Builder design pattern. [8M]
b) Briefly discuss about Prototype design pattern. [7M]
4. a) Write about consequences and implementation issues of Bridge pattern. [8M]
b) Describe sample code and known uses of Adapter design pattern. [7M]
5. a) Discuss about Flyweight design pattern. [8M]
b) When do you use Facade pattern? List any two benefits of this Pattern. [7M]
6. a) Discuss the participants and consequences of Command pattern. [7M]
b) How to provide a way to access the elements of an aggregate object sequentially without exposing its underlying representation ? Explain [8M]
7. a) Explain about consequences and implementation of observer design pattern [7M]
b) Briefly discuss about State design pattern [8M]
8. a) What is the role of patterns in software industry? Are 23 design patterns enough or do we need any additional patterns for software architecture ? Explain with help of examples [7M]
b) Explain the following
i) Refactoring ii) A common design vocabulary [8M]

