Dr- Hemraj Saini

Roll No.: _____

COURSE CODE: 10M11CI214   MAX. MARKS: 25
COURSE NAME: Multimedia systems
COURSE CREDITS: 3   MAX. TIME: 1.5 Hrs

Note: Attempt all the questions. Carrying of mobile phone during examinations will be treated as case of unfair means.

Que.1: *[03 Marks; CO3]* Differentiate preemptive and non-preemptive CPU scheduling. Consider the following process scenario and provide the preemptive and non-preemptive solution for the CPU scheduling.

Process	Arrival Time	CPU Burst Time (in millisec.)
P0	3	2
P1	2	4
P2	0	6
P3	1	4

Que.2: *[03 Marks; CO3]* List the advantages and disadvantages of employing a hierarchical CPU scheduler (which uses a fair share scheduler) versus employing the SMART CPU scheduler. Assume that the application mix consists of both best-effort and soft real-time applications.

Que.3: *[03 Marks; CO4]* Explain the buffer management techniques. Provide a tabular view for buffer management techniques.

Que.4: *[03 Marks; CO4]* Consider the following access requests in one cycle with deadline. You are supposed to implement the group sweeping disk scheduling scheme.

Access requests in one cycle with deadline

3, 4	24
3, 3	30
2, 0	16
3, 3	50
2, 2	42
1, 2	45
1, 4	12
2, 4	40
1, 1	22

Que.5: *[03 Marks; CO4]* What do you understand by File System? Differentiate multimedia file system with traditional file system. Also provide an example of each.

Que.6: (a) *[03 Marks; CO5]* In a token ring network the transmission speed is 10^7 bps and the propagation speed is 200 metres/ms. How much the equivalent 1-bit delay in this network?

(b) *[03 Marks; CO5]* Explain the FDDI Technology. Provide the FDDI reference model with explanation.

Que.7: *[04 Marks; CO5]* Define/explain in brief the following terms or statements:

   a. ABR
   b. Switching
   c. Distributed queue dual bus
   d. Bit length