

TA-III Activity (Numerical Assignment based on student performance)

Subject: Computer System Fundamentals RCP23DPC201

Odd Sem 2025-26

SN	Question Set A	Unit	Topic	Type	Bloom's Level	Marks
1	Examine the step-by-step execution of the Non-Restoring Division Algorithm for 11 divided by 5 and organize the process into a flowchart.	1	Introduction	Numerical	L4	10
2	Convert the following numbers into their IEEE 754 floating point standard representations (32-bit single precision and 64-bit double precision): i. 13.25 ii. -7.75.	1	Introduction	Numerical	L4	10
3	Apply booth's method to show the multiplication of 6 with 2.	1	Introduction	Numerical	L4	5
4	Consider following 5 processes P1, P2, P3, P4 and P5 have arrived at time t=0. The respective values of their priority and Execution (Burst) time are: (3,10), (1,1), (3,2), (4,1) and (2,5). Draw a Gantt chart to show execution of these processes using these scheduling algorithms: FCFS, SJF and nonpre-emptive Priority. The smaller the priority number, the higher is the process priority. Take time quantum = 1. All time values are in milliseconds. Calculate the average waiting time and average turnaround time for all scheduling algorithms and compare them.	2	CPU Scheduling	Numerical	L4	10
5	Consider the following five processes, with the length of the CPU burst time given in milliseconds. Process Burst time is P1-10, P2-29, P3-3, P4-7, P5-12. Consider the First come First serve (FCFS), Non Preemptive Shortest Job First(SJF), Round Robin(RR) (quantum=10ms) scheduling algorithms. Illustrate the scheduling using Gantt chart. Calculate the Average Waiting Time and Turn Around Time along with number of time the context switch is activated during entire schedule length.	2	CPU Scheduling	Numerical	L4	10