Unit-I

1. a) Explain the basic model of real time system? **(8)**

   b) Explain the Radar signal processing system with diagram. **(8)**

(OR)

1. a) Explain the difference between : **(4+4=8)**

   i) Tardiness v/s usefulness

   ii) Absolute deadline v/s relative Deadline

   b) Explain the difference between soft real time system and hard real time system? **(8)**

Unit-II

2. a) Explain the following : **(5+5)**

   i) Functional parameter of a job

   ii) Fixed, jittered and sporadic release time

   b) What do you mean by precedence constraints among the jobs? Explain. **(6)**

(OR)

2. a) Describe clock driven and weighted round robin scheduling algorithm with example. **(10)**

   b) Explain dynamic versus static system. **(6)**

3. a) What are the frames and major cycles in cyclic schedules? What are the different frame size constraints? **(4+6)**

b) What are the different method to improve the average response time of aperiodic jobs? Explain. **(6)**

(OR)

3. a) Explain RM and DM algorithm with suitable example. **(10)**

b) What do you mean by fixed priority algorithm? Explain. **(6)**

Unit-IV

4. Explain the following in detail : **(8+8=16)**

a) Polling server

b) Deferrable server

(OR)

4. a) Explain the priority exchange algorithm. **(8)**

b) What is flexible computation? Explain the characterization of flexible application. **(8)**

Unit-V

5. a) What is critical section? Explain mutual exclusion. **(8)**

b) What do you mean by resource conflicts and blocking? Explain. **(8)**

(OR)

5. Explain the rules of basic priority ceiling protocol. Consider the following system of five jobs, schedule the following five jobs with basic priority ceiling protocol. **(6+10=16)**

Job	r_i	e_i	π_i	Critical section
J_1	7	3	1	[Shaded;1]
J_2	5	3	2	[black;1]
J_3	4	2	3	
J_4	2	6	4	[Shaded; 4[black;1.5]]
J_5	0	6	5	[black; 4]