BHARTIYA INSTIYUTE OF ENGINEERING & TECHNOLOGY-SIKAR

Department of Computer Science & Engineering

VIII Semester

SUB:Real time System (8CS4.2A)

QUESTION BANK

UNIT-1

Q1. What is Real Time System? Explain its Importance? How it is different from general purpose Computer System?

Q2. Explain basic model of Computer System.

Q3. What are the timing constraints? Explain the basic type of timing Constraints in detail.

Q4. Explain the difference between soft real time system and hard real time system.

Q5. What is signal processing system explain with suitable example? What is the bandwidth demand in signal processing system.

Q.6 Explain the Radar Signal processing system with diagram.

Q.7 Briefly explain the following:

1)Deadline and Execution time

2)Period and release time

3)Effect of tradiness of job on soft and hard real time jobs.

UNIT-2

Q1. What do you mean by precedence constraints among the jobs? Explain.

Q2. Describe clock driven and weighted round robin scheduling algorithm with Example.

Q3. Explain dynamic versus static system.

Q4. Explain offline and online scheduling and list out main differences offline and online scheduling algorithm.

Q5. Explain periodic and aperiodic model.

Q.6 Explain the following;

1)Functional parameter of a job

2)Fixed,jittered and sporadic release time

3)Data dependency and its types

4)Scheduling criteria

Q.7 Explain data dependency and its types.

UNIT-3

Q1. Explain the EDF and LST algorithm in detail?

Q2. Describe priority driven approaches of RTS.

Q3. How can you improve that average response time of periodic job Explain?

Q4. Explain rate monotonic algorithm and deadline monotonic algorithm.

Q5. Show optimality of cyclic EDF algo and describe the general structure of cyclic schedules.

Q.6 Explain the notations and assumptions for periodic driven scheduling.Also explain the various fixed priority scheduling algorithm?

Q.7 Differentiate between Real time work load v/s Real time scheduling.

UNIT-4

Q.1 What is aperiodic task scheduling? Explain assumption and approaches for aperiodic task scheduling?

Q.2 Explain the following in detail:

a)Polling server

b)Deferrable server

c)Sporadic server

Q.3 Explain the priority Exchange algorithm in detail.

Q.4 What are flexible applications?What are the various approaches for scheduling of flexible applications.

Q.5 Explain DCM algo in detail.

Q.6 Explain Firm deadline model in detail.

Q.7 Explain general structure of cyclic scheduling.

UNIT-5

Q.1 What are the assumption of resources.Explain it.

Q.2 Explan priority inversion problem with example.

Q.3 Explain priority inheritance protocol in detail.

Q.4 Explain stack based priority celling protocol for multiple unit resources with example.

Q.5 Explain basic priority celling protocol in detail.

Q.6 What is "RAC"?Discuss the effects of resource contention?

Q.7 How priority inversion related to critical section.Explain.