

Code: 13A05804

B.Tech IV Year II Semester (R13) Advanced Supplementary Examinations July 2018

REAL TIME SYSTEMS

(Common to CSE and IT)

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- (a) What is soft real time system?
 - (b) List any two critical real time system applications.
 - (c) List some advantages of clock driven approach.
 - (d) What is offline scheduling?
 - (e) What are schedule conditions for DM algorithm?
 - (f) What is deferrable server?
 - (g) What is the concept of queuing server?
 - (h) What is slack stealing in dead-line driven system?
 - (i) How task assignment is performed in multiprocessor scheduler?
 - (j) What are the effects of resource contention?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 Explain optimality of LST algorithm in detail.

OR

- 3 Give an account on online scheduling. Compare dynamic Vs static systems.

UNIT – II

- 4 Explain how to improve the average response time of aperiodic jobs.

OR

- 5 Explain Timer-Driven scheduler. Write notations and assumptions for timer driven scheduler.

UNIT – III

- 6 Compare the optimality of RM and DM algorithm.

OR

- 7 Explain dynamic priority driven scheduling with example.

UNIT – IV

- 8 Explain slack stealing in fixed priority systems with example.

OR

- 9 Illustrate a two-level scheme for integrated scheduling.

UNIT – V

- 10 Explain the use of priority ceiling protocol in dynamic priority systems.

OR

- 11 Give the model of multiprocessor and distributed systems.
