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B. Tech. Degree VIII Semester Supplementary Examination September 2016

IT 1802 REAL TIME SYSTEMS (2012 Scheme)

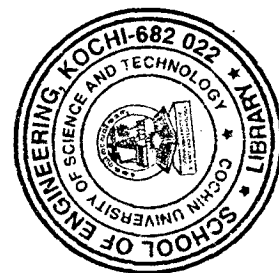
Time: 3 Hours

Maximum Marks: 100

PART A (Answer *ALL* questions)

(8 × 5 = 40)

- I. (a) Explain any five applications of real time systems.
- (b) What are the different types of timing constraints that can occur in a system? Give example of each.
- (c) What is priority inversion and unbounded priority inversion?
- (d) Describe the shortcoming of Unix.
- (e) Explain any two bounded access protocol for LAN's.
- (f) Explain RSVP.
- (g) Explain how real time database differ from traditional database.
- (h) What is temporal data? Explain its characteristics.



PART B

(4 × 15 = 60)

- II. Explain the scheduling of real-time tasks in a distributed system. (15)
OR
- III. Explain the classification of real time task scheduling algorithms. (15)
- IV. Describe in detail about priority inheritance protocol, highest locker protocol and priority ceiling protocol. (15)
OR
- V. (a) Describe windows as a real time operating systems. (8)
(b) Explain POSIX in detail. (7)
- VI. Explain the different types of network in real time communication. (15)
OR
- VII. Explain the important work conserving service discipline and non work conserving service discipline in resource sharing packet switched network in detail. (15)
- VIII. Explain various concurrency control protocols. (15)
OR
- IX. (a) Explain the application of real time databases. (7)
(b) Describe the concept of temporal consistency of database. (8)