CBCS SCHEME

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17MT743

Seventh Semester B.E. Degree Examination, Feb./Mar. 2022
Real Time Systems

Time: 3 hrs. Max. Marks: 100

Note: ***Answer any FIVE full questions, choosing ONE full question from each module.***

Module-1

1 a. Give the classification of real time system and explain them briefly. **(10 Marks)**

b. Briefly explain the following programming methods :
i) Sequential ii) Multi tasking iii) Real time. **(10 Marks)**

OR

2 a. Explain the following in brief : i) Sequence control ii) Loop control. **(10 Marks)**

b. Write short notes on supervisory control. **(10 Marks)**

Module-2

3 a. With a neat diagram explain general purpose computer. **(10 Marks)**

b. Explain the different forms of parallel computer architectures, with neat sketch. **(10 Marks)**

OR

4 a. With a neat diagram, explain the different LAN topologies used. **(10 Marks)**

b. Explain pulse interface with neat sketch. **(10 Marks)**

Module-3

5 a. List and explain the features of real – time language. **(10 Marks)**

b. Explain : i) coroutines ii) concurrency iii) interrupts and device handling mechanism. **(10 Marks)**

OR

6 a. Explain the following concept in modularity and variables.
i) Scope and visibility ii) Global and local variables. **(10 Marks)**

b. Explain the different data types supported in real time languages. **(10 Marks)**

Module-4

7 a. Write a sketch of task state diagram and explain each state in brief. **(10 Marks)**

b. Explain the different scheduling strategies. **(10 Marks)**

OR

8 a. Explain code sharing problem and the method used to overcome this problem. **(10 Marks)**

b. Explain the function of memory management unit. **(10 Marks)**

Module-5

9 a. Explain single program approach with neat flow diagram. **(10 Marks)**

b. Explain ward and Mellor method. **(10 Marks)**

OR

10 a. Explain foreground/back ground system with neat sketch. **(10 Marks)**

b. Describe Yourdon methodology. **(10 Marks)**

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