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10MT761

Seventh Semester B.E. Degree Examination, July/August 2022
Real Time Systems

Time: 3 hrs.

Max. Marks: 100

Note: Answer any *FIVE* full questions, selecting atleast *TWO* questions from each part.

PART – A

- 1 a. Define RTS. Explain the classification of RTS. (10 Marks)
b. Explain the concepts of time constraints and classification of programs. (10 Marks)
- 2 a. Explain the operation of sequence control with neat diagram. (10 Marks)
b. Explain the operation of centralized computer control with neat diagram. (10 Marks)
- 3 a. Explain the working operation of general purpose computer with neat diagram. (10 Marks)
b. Explain the architecture of open system interconnected network with neat diagram. (10 Marks)
- 4 a. Explain the operation of syntax layout and readability in detail. (10 Marks)
b. Explain the operation of different types of data types in RTS. (10 Marks)

PART – B

- 5 a. Explain the operation of real-time multitasking operating system with neat block diagram. (10 Marks)
b. Explain the concepts of scheduling strategies. (05 Marks)
c. Explain the concepts of priority structures. (05 Marks)
- 6 a. Explain the operation of memory management. (06 Marks)
b. Explain the concepts of data transfer. (06 Marks)
c. Explain the operation of scheduler and real-time clock interrupt. (08 Marks)
- 7 a. Explain the concepts of specification documents. (06 Marks)
b. Explain the operation of preliminary design in detail. (10 Marks)
c. Explain the operation of single program approach. (04 Marks)
- 8 a. Explain the working operation of ward and Mellor method in detail. (10 Marks)
b. Explain the operation of Hatley and Pirbhai method in detail. (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and/or equations written eg. 42+8 = 50, will be treated as malpractice.