

CBCS SCHEME

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15MT743

Seventh Semester B.E. Degree Examination, Dec.2018/Jan.2019

Real Time Systems

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Define Real Time System. Explain Classification of Real Time System. (08 Marks)
b. Describe classification of programs. (08 Marks)

OR

- 2 Explain the concept of computer control for the following :
i) Supervisory control ii) Centralized Computer Control. (16 Marks)

Module-2

- 3 a. Explain Specialized processor with neat diagram. (08 Marks)
b. Draw diagram and explain single chip micro computers and microcontrollers. (08 Marks)

OR

- 4 a. Explain any three data transfer technique using interrupts. (12 Marks)
b. Explain the types of process related interfaces. (04 Marks)

Module-3

- 5 Explain the following concept in languages for Real Time Application :
i) Data Types ii) Control Structures. (16 Marks)

OR

- 6 Explain the following :
i) Exception handling ii) Interrupts and device handling. (16 Marks)

Module-4

- 7 a. Explain three broad levels of priority with neat description. (12 Marks)
b. Explain Task Management Function in detail. (04 Marks)

OR

- 8 a. Explain memory management concept with neat diagram. (12 Marks)
b. Explain minimum OS Kernal concept with short description. (04 Marks)

Module-5

- 9 a. Explain the following preliminary Design concept (08 Marks)
i) Hardware Design ii) Software Design
b. Draw single program approach and also explain. (08 Marks)

OR

- 10 Explain Hatley and Pirbhai method in RTS development methodology. (16 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.