



R18 Regulation

Subject code: 208FB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VIII Semester Supplementary Examinations, April, 2024

Embedded Systems

(Open Elective)

(Information Technology)

Maximum Marks: 70

Date: 24.04.2024 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each Unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 Explain any two characteristics in embedded system design?
- 2 List the major application areas of embedded systems.
- 3 Compare PLD and ASICs.
- 4 Mention the purpose of watch dog timer.
- 5 What is cross compiler?
- 6 Give the electrical specifications of RS232.
- 7 When is RTOS necessary and when is it not necessary in Embedded system?
- 8 What is process life cycle?
- 9 What is priority ceiling?
- 10 What is mean by remote procedure call?

Part-B

Answer All the following questions.

(5X10M=50Marks)

- 11 Explain the purpose of embedded systems in detail with illustrative examples? (10M)
OR
- 12 Explain in detail about the Characteristics of embedded system. (10M)
- 13 Explain the role of Oscillator unit & Brown out protection circuit in embedded system. (10M)
OR
- 14 Explain following concepts with example:
A. Reset Circuit (5M) B. Real Time Clock (5M)
- 15 Explain the different external communication interfaces in brief. (10M)
OR
- 16 With neat sketches, explain about the Bluetooth technology. (10M)
- 17 Explain the various factors to be considered for the selection of scheduling criteria. (10M)
OR
- 18 Give the comparison between multitasking and multiprocessing. (10M)
- 19 What is deadlock and explain about dining philosophers problem. (10M)
OR
- 20 Explain how Device Drivers act as a bridge between the operating system and the hardware. (10M)