

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

**B.Tech.(EE)(2011 Onwards E-III)
B.Tech.(Electrical & Electronics)(2011 & 2012 Batch E-III)
(Sem.-7,8)**

EMBEDDED SYSTEMS
Subject Code : BTEE-805E
M.Code : 71946

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTION TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students has to attempt any TWO questions.

SECTION-A

1. Answer briefly :

- a) Define Semaphore.
- b) What is shared data problem?
- c) Define Process.
- d) Define Message Queue.
- e) What are the states of a process?
- f) Define Real Time Clock (RTC)?
- g) What are the main components of an embedded system?
- h) Give the limitations of polling technique.
- i) Name any two queue related functions for the inter task communications,
- j) What is code memory?

SECTION-B

2. Explain the goals of operating system services.
3. Explain the software tools in designing of an embedded system.
4. Explain how interrupt routines handled in embedded system
5. Explain Scheduling policies.
6. Compare RS-232 and RS485 serial interfaces.

SECTION-C

7. Classify and explain various types of embedded systems.
8. Explain the working of timers and counters in detail.
9. Explain the functions of various buses used during transfer of data.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.