

[illegible]

Total No. of Questions : 09

B.Tech.(ECE) (2011 Batch) (Sem.-7,8)

EMBEDDED SYSTEMS

Subject Code : BTEC-701

Paper ID : [A3000]

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. Write briefly :**

- (a) Elaborate the concepts used during design process in embedded system.
- (b) List various interrupts present in ARM processor.
- (c) Define the term JTAG.
- (d) What do you mean by PSR instructions? How they are helpful in programming?
- (e) What are the benefits of floating point arithmetic over integer point arithmetic?
- (f) What is the need of analog to digital conversion?
- (g) Deduce the term IDE.
- (h) Mention all functions performed by ARM processor in parallel.
- (i) How stepper motor is different from DC motor?
- (j) Write the importance of GSM interfacing.

SECTION-B

2. Discuss the characteristics of various architectures in embedded systems.
3. What are the various addressing modes used in ARM programming ?
4. What is the significance of register allocation?
5. What are various debugging tools? How these tools are helpful in programming?
6. Using conditional comparisons identify whether the character c is a vowel?

SECTION-C

7. With the help of block diagram, explain the architecture of ARM processor.
8. Elucidate the use of functions with the help of syntax and example
9. Explain the interfacing of :
 - (a) LCD with ARM processor.
 - (b) ZIGBEE with ARM processor.