

Roll No.....
Total No. of Questions: [09]

Total No. of Printed Pages: [01]

B.Sc. IT (Semester – 4th)
EMBEDDED SYSTEM
Subject Code: BITE1416
Paper ID: [130419]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It consists of 10 parts of two marks each.
2. Section B consist of 5 questions of 5 marks each. The student has to attempt any 4 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(2 marks each)

- Q1. Attempt the following:
- a. What are the application of an embedded system?
 - b. Name some DSP used in embedded system.
 - c. Define embedded microcontroller.
 - d. Difference between CISC and RISC.
 - e. Define device driver
 - f. What is watchdog timer?
 - g. What is debugging?
 - h. Difference between timers and counter
 - i. What are the various types of memory in embedded system?
 - j. What are the two essential units of a processor on an embedded system?

Section – B

(5 marks each)

- Q2. What is an embedded system? What are the components of embedded system?
- Q3. Classify the processor in embedded system and explain them with a diagram.
- Q4. What are the functional and real-time requirements of an embedded system?
- Q5. Explain in detail about the building process of an embedded system
- Q6. Explain followings:
- a. In-Circuit Emulator.
 - b. Target Hardware Debugging

Section – C

(10 marks each)

- Q7. Explain the selection of processor and memory for an embedded system application with a suitable diagram.
- Q8. Explain the concept of washing machine application in embedded system with a suitable diagram.
- Q9. Illustrate with functional description about the different phase of Embedded Life cycle Model.