B.E. Eighth Semester (Electronics & Communication /
Electronics & Telecommunication Engineering) (C.B.S.)
Elective - II : Embedded System

P. Pages : 2

Time : Three Hours

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0274

KNT/KW/16/7564

Max. Marks : 80

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Notes : 1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.
8. Due credit will be given to neatness and adequate dimensions.
9. Assume suitable data whenever necessary.
10. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) Explain Embedded system ? What are the different characteristic needed to design embedded system. **7**

   b) Explain different design challenges in embedded system. **6**

OR

2. a) What are the various applications of embedded system. **5**

   b) Explain any two recent trends in embedded system. **8**

3. a) Explain Hardware architecture of Embedded system. **8**

   b) Explain Interrupt Service Mechanism. **6**

OR

4. a) Explain context switching process. **7**

   b) Explain in brief Device Driver. **7**

5. a) Explain with neat diagram of ARM organization. **7**

   b) What are RISC & CISC processor Explain & compare. **6**

OR

6. a) Explain the core extension in ARM Processor. **8**

   b) Explain load & store instruction of ARM processor with neat diagram. **5**

7. Write short note on **any two** **14**

    a) IEEE 802.16.

    b) Bluetooth.

    c) GPRS Protocols.

OR

8. Write short note on **any two.** **14**

    a) USB.

    b) I^2C Protocol

    c) CAN Protocol.

9. a) Explain RTOS and define hard real time & soft real time O.S. **8**

    b) Explain in detail memory management. **5**

OR

10. a) What do you mean by task in Embedded system ? How can task scheduler manage the task in Kernel ? **8**

    b) Explain ISR in RTOS. **5**

11. Discuss in details case study of automation field on Automatic chocolate vending machine. **13**

OR

12. Discuss in details case study of digital camera hardware and software architecture. **13**

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