B.E.(Electronics Engineering) Semester Seventh (C.B.S.)
Embedded System

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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. Assume suitable data wherever necessary.
9. Illustrate your answers wherever necessary with the help of neat sketches.
10. Use of non programmable calculator is permitted.

1. a) What is embedded system? Explain its characteristics & classification of embedded system. **8**

b) Explain the various design metrics of embedded system. **6**

OR

2. a) Explain the different recent trends in embedded system. **6**

b) List any six application areas of embedded system. Explain any one applications in detail. **8**

3. a) Draw and explain the hardware architecture of embedded system. **7**

b) Explain the device driver in detail. **6**

OR

4. a) Explain interrupt service mechanism and context switching. **7**

b) Explain Von-Neumann architecture used in Embedded system. **6**

5. a) Explain the differences between CISC & RISC. **6**

b) Draw and explain the architecture of ARM processor. **7**

OR

6. a) Explain the various operating modes of ARM processor. Also explain CPSR. **7**

b) Explain the exceptions handling mechanism of ARM processor. **6**

7. a) Explain the Bluetooth in detail. **7**

b) Write short note on IEEE 802. 11 **7**

OR

8.		Explain the following **any two.**	
	a)	CAN protocol	**7**
	b)	I2C protocol	**7**
	c)	USB protocol	**7**
9.	a)	Draw and explain the Kernel architecture.	**7**
	b)	Explain the various functions of Task scheduler in detail.	**6**

OR

10.		Explain the following.	
	a)	Semaphore	**5**
	b)	Mail box	**4**
	c)	Message queues	**4**
11.		Explain the case study of embedded system for digital camera.	**13**

OR

| 12. | | Explain the case study of embedded system for Automatic chocolate vending machine. | **13** |

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