M.E. Second Semester (Computer Science & Information Technology) (New-CGS)
13189 : Real Time Embedded Systems : 2 RNME 1

P. Pages : 2

Time : Three Hours

AW - 3606

Max. Marks : 80

Notes : 1. All question carry equal marks.
2. Due credit will be given to neatness and adequate dimensions.
3. Assume suitable data wherever necessary.
4. Use of pen Blue/Black ink/refill only for writing the answer book.

1. a) Explain TCP/IP protocol suit in detail. 8

   b) Enlist and explain various specialties of an embedded system. 5

OR

2. a) What are the recent trends in Embedded systems. 6

   b) Explain the process of creating an executable image with diagram. 7

3. a) Explain the process of creating MIDlet. 7

   b) List the important issues in managing embedded system development. 6

OR

4. a) Explain the waterfall model using diagram. 6

   b) What are the different types of testing needs to be done; while testing the embedded system. 7

5. a) Explain different types of hardware platforms for embedded systems. 7

   b) Explain Bluetooth protocol architecture using diagram. 7

OR

6. a) Explain Infrared with IrDA Module and protocol architecture. 7

   b) Explain the architecture of Intel 8051 family micro-controllers. 7

7. a) What are Real Time Operating Systems? Explain any four popular Real Time Operating Systems. 8

   b) Explain the following algorithms : 6
   i) Non-preemptive multitasking.
   ii) Round-Robin.

OR

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8. a) What is task scheduling? Explain the states of a task in an embedded system. 7

 b) List the various objects of an operating system kernel. Explain it. 7

9. a) Enlist and explain the features of Linux. 6

 b) Explain the software defined Radio transmitter architecture. 7

OR

10. a) What is IP phone? Explain. 7

 b) What are smart cards? Explain. 6

11. a) Draw and explain RFID system in detail. 7

 b) Explain the following :
 i) Time domain analysis of digital signals.
 ii) Frequency domain analysis of signal. 6

OR

12. a) List the various phases in the process of development of DSP. Explain it. 7

 b) What is the use of filtering in DSP? List and explain its various types. 6

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