M. Tech Computer (3) Sem - III (Comp 3)

MASTER OF TECHNOLOGY (COMPUTER ENGINEERING) (CBCS - 2015 COURSE) M. Tech. (Computer Engineering) Sem-III: WINTER- 2019
SUBJECT: SELF-STUDY PAPER-I:SENSOR NETWORK & EMBEDDED SYSTEMS (UE)

Friday 06-12-2019
11:00 AM-02:00 PM

W-14500-2019
Max. Marks: 60

N. B. :

1) All questions are **COMPULSORY**.
2) Figures to the right indicate **FULL** marks.
3) Answers to both the sections should be written in **SEPARATE** answer books.
4) Draw neat and labelled diagram **WHEREVER** necessary.
5) Assume suitable data, if necessary.

SECTION – I

Q. 1 Differentiate between mobile Ad-hoc network and WSN based on various parameters. **(10)**

OR

Draw a figure showing basic sensor node main components. Explain each component in brief. **(10)**

Q. 2 Differentiate between proactive and reactive routing protocols used in WSN. **(10)**

OR

Explain right hand rule to recover greedy routing GRSR, Geographic routing. **(10)**

Q. 3 What are the ways to compute the distance between two nodes? Explain triangulation and trilateration methods in details. **(10)**

OR

How a sensor node is different from other wireless nodes? Explain the configuration of Berkeley Motes. **(10)**

SECTION – II

Q. 4 What are the types of embedded system? Classify the processor in embedded system. **(10)**

OR

What are the characteristics of embedded computing applications? **(10)**

Q. 5 Explain in detail ARM and SHARC processor. **(10)**

OR

What is component interfacing and designing with microprocessor development? **(10)**

Q. 6 Explain with example how assembly language can be used for embedded application development. **(10)**

OR

Explain following 'C' program elements: **(10)**

a) Micros and functions
b) Modifiers and statements
c) Loops and pointers

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