Pre. Ph.D. Course Work (2017 Course) : (Electronic Engg.) :
SUMMER - 2019
SUBJECT : PAPER – II : RECENT ADVANCES IN ELECTRONICS ENGINEERING

Day : Wednesday
Date : 24/04/2019

S-2019-5364

Time : 10.00 AM TO 1.00 PM
Max. Marks : 100

N. B. :

1) Attempt **ANY FIVE** questions from each section.
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 diagrams **WHEREVER** necessary.
5) Assume suitable data, if necessary.

SECTION – I

Q. 1 Which are the optimization techniques? Explain optimization techniques w.r.t. Engineering. **(10)**

Q. 2 What are the major operations in speech processing? Describe using examples. **(10)**

Q. 3 Using suitable diagrams, discuss waveguides. **(10)**

Q. 4 Discuss the state of art of MIMO and OFDM. **(10)**

Q. 5 What is CNT? What are the applications of CNT in nano electronics? **(10)**

Q. 6 Using suitable diagrams, explain spintronic devices. **(10)**

SECTION – II

Q. 7 What are the invasive and non-invasive techniques? Explain using suitable examples. **(10)**

Q. 8 What are the IOT enable processors? Give a brief overview. **(10)**

Q. 9 What are the deep learning techniques? Discuss in detail. **(10)**

Q.10 Discuss RBF network training algorithm. **(10)**

Q.11 What are the trends of Deep Submicron VLSI Design? Describe in detail. **(10)**

Q.12 Discuss following using suitable examples: **(10)**

a) Fitness function

b) Genetic operations

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