

M. Tech.-IV (Electrical -Power System) (CBCS – 2015 Course) :
SUMMER - 2019

**SUBJECT: SELF-STUDY PAPER-II NANO TECHNOLOGY & ITS APPLICATIONS IN
ELECTRICAL ENGINEERING**

Day: Thursday
Date: 13/06/2019

Time: 11.00 AM TO 02.00 PM
Max Marks: 60

S-2019-3556

N.B.:

- 1) Answer to both the sections should be written in **SAME** Answer book.
- 2) All questions are **COMPULSARY**.
- 3) Figures to the right indicate **FULL** marks.
- 4) Assume suitable data if necessary.

SECTION-I

- Q.1** Write down overview of nanotechnology. (10)
OR
Write a note on nano-scale materials. (10)
- Q.2** How do you explain about LED with thin layer of quantum dots? (10)
OR
Write a note on micro-heaters for certain application. (10)
- Q.3** Write a note on nano-fluidic fuel cell with neat diagram. (10)
OR
What is role of membrane in case of efficiency of a fuel cell? (10)

SECTION-II

- Q.4** Write a note on high temperature superconducting HTS cables. (10)
OR
What is relevance of nanotechnology in case of power system? (10)
- Q.5** What is spin coater? What parameters those need to set for coating a substrate? (10)
OR
What is contact angle testing? Explain. (10)
- Q.6** Write a note on nanotechnology Research & Development act. (10)
OR
What are the problems associated with nanotechnology with respect to environment? (10)

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