

**DCHN-01**

December - Examination 2015

**DCHN Examination****Basic Electricity and Electronics****Paper - DCHN-01****Time : 3 Hours ]****[ Max. Marks :- 100**

**Note:** The question paper is divided into three sections A, B and C. Write answers as per given instructions.

**Section - A**

10 x 2 = 20

(Very Short Answer Questions)

**Note:** Answer all questions. As per the nature of the question delimit your answer in one word, one sentence or maximum upto 30 words. Each question carries 2 marks.

- 1) (i) What do you mean by impedance?
- (ii) What is meaning of doping?
- (iii) What are the types of resistors?
- (iv) What do you understand by series and shunt connections?
- (v) What is the work of rectifiers?
- (vi) Write any two applications of transistors.
- (vii) What are the energy bands in semiconductors?

- (viii) What is diffusion?
- (ix) What is Fermi energy band level?
- (x) What is hall effect?

**Section - B**

4 x 10 = 40

(Short Answer Questions)

**Note:** Answer any four questions. Each answer should not exceed 200 words. Each question carries 10 marks.

- 2) Discuss basic laws of electrical circuits.
- 3) Discuss all operating modes of transistor.
- 4) Explain working of field effect transistor.
- 5) Explain the rectifiers with its types.
- 6) Discuss working principle of oscillators.
- 7) Write a short note on logic family.
- 8) Describe the working of power transistors.
- 9) Discuss switch and its types.

**Section - C**

2 x 20 = 40

(Long Answer Questions)

**Note:** Answer any two questions. You have to delimit your each answer maximum upto 500 words. Each question carries 20 marks.

- 10) Explain electric potential and voltage.
- 11) Explain all kind of relays and their working.
- 12) Explain working of transformers.
- 13) Explain magnet and their types.

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