Roll No.

## NOIDA INSTITUTE OF ENGINEERING AND TECHNOLOGY, GREATER NOIDA

(An Autonomous Institute)

## Affiliated to Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow B.Tech

## FIRST YEAR (SEMESTER-II) THEORY EXAMINATION (2020-2021)

(Subjective Type)

Subject Code: AEC0201

**Max. Mks.: 30** 

**Subject: Basic Electrical and Electronics Engineering** 

Time : 50 Minutes

## **General Instructions:**

All questions are compulsory.

Question No. 1 to 15 are subjective type question carrying 3 marks each. Attempt any 10 out of 15 questions.

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Туре	Difficulty
1	Define Active & Define Active		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
2	Three equal resistance of 5Ω are connected in star. Find resistance in each branch of the equivalent delta.	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
3	Find current in 2 Ω.		Attempt any 10 questions	10 x 3=30	3		Subjective	Genius
4	A series R-L circuit of Z=(6+j8) Ω carries a current of 5A then calculate its power consumption and power factor.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
5	Derive the equation for resonant frequency in parallel resonance.		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
6	The instantaneous values of two alternating voltages are represented as $V1 = 60 \sin \& omega;t$ and $V2 = 40 \sin (\& omega;t \& ndash; \& pi;/3)$ . Derive the expression of voltage as sum.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
7	In a transformer iron loss is 600 W at full load. iron loss at half load will be	Page 1 of 2	Attempt any 10 questions	10 x 3=30	3		Subjective	Smart

Q.No	Question Content	Question Image	Category	Sub Category	Marks	Options Randomization	Туре	Difficulty
IX	Why earth pin is made thicker and bigger than line and neutral?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
9	Discuss working principle of transformer.		Attempt any 10 questions	10 x 3=30	3		Subjective	Genius
10	What will happen on number of electrons in a semiconductor on increasing temperature?		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
11	Explain the working of half wave rectifier.		Attempt any 10 questions	10 x 3=30	3		Subjective	Genius
12	What are the advantages OLED?		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart
13	Draw the block diagram of digital multimeter.		Attempt any 10 questions	10 x 3=30	3		Subjective	Genius
14	Define the slew rate of Op-Amp.		Attempt any 10 questions	10 x 3=30	3		Subjective	Brilliant
15	Define input offset current and write down its formula.		Attempt any 10 questions	10 x 3=30	3		Subjective	Smart