



AJEENKYA

D Y PATIL UNIVERSITY

End Term Examination (December 2019)

School: School of Engineering

Program: BTECH (Div D & E)

Course: Basic Electronics and Electrical Circuit.

Course Code: ENG108

Semester: I

Max Marks: 50

Duration (mins) : 90 Min

Section A

Q1 Fill in the Blanks. (Any Five)

10 Marks

- Define Active Electronic Component
- Draw OR gate with Truth table.
- State Demorgans Theorem.
- State superposition Theorem.
- State KVL Theorem.
- State Ohm's Law.
- What is charge ?

Section B

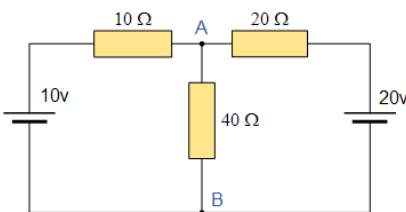
Q2. Answer the following (Any Four)

20 Marks

- Explain Half Wave Rectifier with neat diagram.
- Implement following equation using logic gate and Truth table.

$$Y=(A+B).(A.B)+C$$

- Find equivalent circuit for following circuit using Thevenins Theorem.



- d. Write down ideal characteristics of Op-Amp.
- e. Write a note on Sign Convention.
- f. Explain Full wave Rectifier with necessary diagrams.

Section C

Q3. Answer the following (Any Two)

20 Marks

- a. Explain Summing Amplifier with neat diagram.
- b. Explain Bridge Rectifier with proper waveforms.
- c. Draw following gate with truth table.
 - 1. OR Gate 2. NOR gate 3. AND Gate 4. NAND Gate
- d. Explain Physical operation of P-N diode with IV characteristics.
- e. Write down Characteristics of Ideal Op-Amp.

******* ALL THE BEST*******