

**TECHNO INDIA NJR INSTITUTE OF TECHNOLOGY, UDAIPUR**

**Computer Science and Engineering**

**B.TECH I-YEAR (I-SEM)**

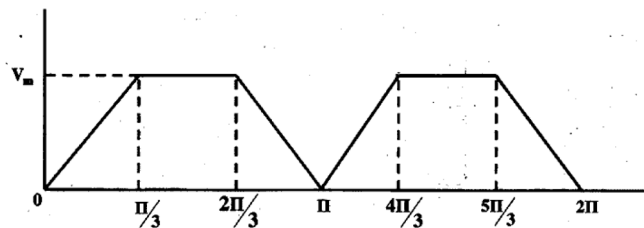
**SUBJECT 1FY3-08**

**BASIC ELECTRICAL ENGINEERING**

**ASSIGNMENT-2**

*Answer all questions. Each question carries 5 marks*

1. Find the average value of Periodic sine wave for complete cycle which is clamped to half its Positive Maximum Value.
2. Find the r. m. s. value of sine wave for complete cycle which is clamped to half its negative Maximum Value.



4. Three sinusoidal voltages acting in series are given by:

$$V_1 = 10 \sin(440t)$$

$$V_2 = 10\sqrt{2} \sin(440t - 45^\circ)$$

$$V_3 = 20 \cos(440t)$$

Find expression for resultant voltage and frequency and rms value of resultant voltage.

5. For the given periodic waveform determine:

- A. Frequency of the waveform
- B. Wave equation for  $0 < t < 100$  m second
- C. RMS value
- D. Average value
- E. Form factor

