

विषय : General Module

प्रत्येक Section को उत्तर छुट्टाछुट्टै उत्तरपुस्तिकामा लेख्नुपर्नेछ । अन्यथा उत्तरपुस्तिका रद्द हुनेछ ।

Time : 1 Hour 35 Minutes

Subjective

44 Marks

Section 'A'

1. Describe Amplitude Modulation and how does it differ from Frequency Modulation? State. 4
2. Let $f(x)$ be the function of period $2L = 4$ which is given on the interval $(-2, 2)$ by

$$f(x) = \begin{cases} 0 & -2 < x < 0 \\ 2 - x & 0 < x < 2 \end{cases}$$
 Find the value of a_n , the coefficient of $\cos nx$. 4
3. According to Newton's Gravitational law, which forces have to be considered and balanced for orbiting satellite to the Earth and why? 4
4. What is the mapping procedures adopted in the organization of Cache Memory? List and define the terms in which the performance of Cache Memory is frequently measured. 2+2=4
5. What is an Op-Amp? List the main characteristics of the ideal case of operational amplifier. 4
6. Find the equivalent resistance between the points A and D of the infinite ladder shown in the figure below. 4

