paper code: P119-152 (T1)

OCTOBER 2018 / IN - SEM (T1)

F. Y. M. TECH. (Design Engineering) (SEMESTER - I)

COURSE NAME: Advanced Vibrations and Acoustics

COURSE CODE: MEPA11182

(PATTERN 2018)

Time: [1 Hour] [Max. Marks: 20]

MARKING SCHEME

Q.1) 1) For $\xi=2.0$, $x=0.288A\ [e^{-0.27wnt}-e^{-3.73wnt}]$
2) For $\xi=0.2$, $x=Awnte^{-wnt}$] [6 marks]

b) Ke Series 667N/m, Ke Parallel 1000N?m and Mass m=0.293 Kg [4 marks]

OR

Q.2) a) $\delta=1/n \log (Xo/Xn)$ [6 marks]
b) Explain magnification factor is [4 marks]

Q.3) a) w1=(0.198*2)^0.5, w2==(2.5*2)^0.5, w3=(3.5*2)^0.5 [6 marks]
b) w1= (T/ml)^0.5, w2= (3T/ml)^0.5 [4 Marks]

OR

Q.4) a) 1) x1=6.25cos30t-1.25cos40t , x2=6.25cos30t+1.25cos40t
2) x1=-2.5cos30t-2.5cos40t , x2=-2.5cos30t+2.5cos40t [6 Marks]

b) Explain different types of vibration absorbers with their application. [4 Marks]