BHARATI VIDYAPEETH'S COLLEGE OF ENGINEERING

(Approved by AICTE, New Delhi & Affiliated to Guru Gobind Singh Indraprastha University, Delhi)
(An ISO 9001:2015 Certified Institution)
A-4, Paschim Vihar, Main Rohtak Road, New Delhi – 110 063

Department of Electrical and Electronics Engineering

Student Name……..…….. **Enroll. No**…….…..

Semester VI **Date**

Course Code EEE 320T **Course Title** UEE

Quiz/Test No. **Assignment** **Marks Obtained**……..

Max. Marks : **4** **Evaluator's Sign**…….....

Set A **Time: Twenty Minutes**

Note: Attempt ALL questions. The marks corresponding to each question has been indicated using square brackets []. Write the answers corresponding to each question in the space provided at the end of the sheet. The back side of this sheet can be used for rough work. No other sheet will be provided for the purpose.

1) A locomotive runs with an average speed of 10 m/s between two stops that are 2 km distant. Assuming trapezoidal speed-time curve, compute the maximum speed of the locomotive. Value of acceleration is 0.5 m/s^2 and that of deceleration is 3.6 km/h/s.
[2]

2) A locomotive runs between two stations that are 1.5 km apart with a schedule speed of 10 m/s. The duration of stops is 25 s. Assuming trapezoidal speed-time curve, compute the acceleration. Ratio of maximum speed of the locomotive to its average speed is 1.25. The retardation has a value of 3 km/h/s. [2]

ANSWERS:

1) _____ 2)_____