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Week 2: Assignment 2 Course outline How does an NPTEL online The due date for submitting this assignment has passed. course work? Due on 2021-08-18, 23:59 IST. As per our records you have not submitted this assignment. Module 1 - Overview of Electric Vehicles in India Note: The questions for this week is based on the three vehicles described in 'Week 2: Assignment 1' Module 2 - Vehicle Dynamics zero slope. Announcement on Week 2 The total traction force for the 2-wheeler is given as A\*vx + B Lecture 10 - Forces acting when a vehicle move The total traction force for the 3-wheeler is C\*vx + D Lecture 11 - Aerodynamic drag, Rolling Resistance and The total traction force for the 4-wheeler is E\*vx + F Uphill Resistance Lecture 12 - Power and Compute the values of x, A, B, C, D, E, F Torque to accelerate For the three vehicles also compute the power and torque at v = 30 km/h, 50 km/h and 80 km/h Lecture 13 - Putting it all together - 1 Lecture 14 - Putting it all The value of x is together - 2 Lecture 15 - Concept of Drive Cycle - 1 No, the answer is incorrect. Score: 0 Lecture 16 - Concept of Drive Accepted Answers: Cycle - 2 (Type: Numeric) 2 Week 2 Slide Content Week 2 Feedback Form: The value of A is Electric Vehicles and Renewable Energy Quiz: Week 2: Assignment 1 No, the answer is incorrect. Score: 0 Quiz: Week 2: Assignment 2 Accepted Answers: (Type: Range) 0.32,0.33 Quiz: Week 2: Assignment 3 Quiz: Week 2: Assignment 4 3) The value of B is Quiz: Week 2: Assignment 5 Week 2: Solutions Module 2 and 3 - Vehicle No, the answer is incorrect. Score: 0 Dynamics and EV Accepted Answers: Subsystems (Type: Range) 167,169 Module 4 - Storage for EVs The value of C is Module 4 - Storage for EVs (contd) Module 5 - Fundamentals of No, the answer is incorrect. Score: 0 battery pack design Accepted Answers: (Type: Range) 0.43,0.44 Module 5 and 6 - Battery Pack Design, Motors and Controllers 5) The value of D is Module 6 - EV Motors and Controllers No, the answer is incorrect. Score: 0 Module 7&8 - Battery Accepted Answers: Charging and Swapping, (Type: Range) 501,505 Analytics Module 9: Renewable Energy The value of E is - Introduction Module 10: Renewable Energy - Solar and Wind No, the answer is incorrect. Energy Score: 0 Accepted Answers: (Type: Range) 0.44,0.51 Module 11: Renewable Energy The value of F is Live Session DOWNLOAD VIDEOS No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 1252,1265

Q 2.2 a) For the three vehicles in Assignment 2.1, compute total traction force assuming pick-up from 0 to 50 kmph in 20 sec, with linear acceleration and 0.5 points For the 2-wheeler whose traction force and power were computed earlier: 8) What is the power (in kW) of the 2-wheeler at 30 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 1.56,1.60 0.5 points What is the power (in kW) of the 2-wheeler at 50 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 3.1,3.3 0.5 points 10) What is the power (in kW) of the 2-wheeler at 80 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 7.25,7.35 0.5 points 11) What is the torque (in Nm) of the 2-wheeler at 30 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 53,54 0.5 points 12) What is the torque (in Nm) of the 2-wheeler at 50 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 64,65 0.5 points 13) What is the torque (in Nm) of the 2-wheeler at 80 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 90,93 0.5 points For the 3-wheeler whose traction force and power were computed earlier: 14) What is the power (in kW) of the 3-wheeler at 30 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 4.4,4.5 0.5 points 15) What is the power (in kW) of the 3-wheeler at 50 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 8,9 0.5 points 16) What is the power (in kW) of the 3-wheeler at 80 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 15.5,16.5 0.5 points 17) What is the torque (in Nm) of the 3-wheeler at 30 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 103,108 0.5 points What is the torque (in Nm) of the 3-wheeler at 50 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 115,120 0.5 points 19) What is the torque (in Nm) of the 3-wheeler at 80 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 140,145 0.5 points For the 4-wheeler whose traction force and power were computed earlier: 20) What is the power (in kW) of the 4-wheeler at 30 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 10.6,10.8 0.5 points What is the power (in kW) of the 4-wheeler at 50 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 18,19 0.5 points Accepted Answers: (Type: Range) 18,19 0.5 points 22) What is the power (in kW) of the 4-wheeler at 80 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 32,34 0.5 points 23) What is the torque (in Nm) of the 4-wheeler at 30 km/h? [Correct up to 2 dp] No, the answer is incorrect. Score: 0 Accepted Answers: (Type: Range) 385,415 0.5 points

24) What is the torque (in Nm) of the 4-wheeler at 50 km/h? [Correct up to 2 dp]

25) What is the torque (in Nm) of the 4-wheeler at 80 km/h? [Correct up to 2 dp]

0.5 points

0.5 points

No, the answer is incorrect.

No, the answer is incorrect.

Accepted Answers: (Type: Range) 440,475

Accepted Answers: (Type: Range) 400,420

Score: 0

Score: 0