

Department of Humanities and Social Sciences

Paper: Economics for Engineers

Mid Sem. 1 Examination (January 2022)

Time: 1 hour (including pdf submission)

Marks 15

Instructions

1. Mention the file name in format RollNo_First Name (For ex. 12114055_Harsh)
2. Submission mail id: bmassignment7@gmail.com (don't make a typo mistake)
3. Submit the exam in given time period only. (Late submission will have a penalty)

Attempt the following questions

1. Explain in detail "Economics is a science of choices" **3**
2. An engineering technology group just purchased new CAD software for \$5000 now and annual payments of \$500 per year for X years starting Y years from now for annual upgrades. What is the present worth of the payments if the interest rate is 8% per year? X is the (6+last number of your roll identity) and Y is (2 + last number of your roll identity). **5**
3. A consulting engineering firm is considering two models of SUVs for the company principals. A GM model will have a first cost of Rs. 26000, an operating cost of Rs. 2000 in year 1 & increasing by X % every year, and a salvage value of Rs. 12000 after 3 years. A Ford model will have first cost of Rs. 29000, an operating cost of Rs. 1200 per year in year 1 & increasing by X % every year, and a Rs. 15000 resale value after 5 years. At an interest rate of 15% per year, which model should the consulting firm buy? Conduct an annual worth analysis (**PIE section students solve the question using present worth method**). X is the sum of last two numbers of your roll identity. **7**