

Marmara University – Engineering Department
Engineering Economy Mid-Term Spring 2021

Q1 - Suppose we deposit \$1500 into an account that pays a simple interest rate of **0.5% each month**. Find the amount of interest earned at the end of **3 years**? **10 PTS**

Q2 - Calculate the compound interest on 30,000 TL at 7% annual interest in 3 years. Find the interest and find the total amount we have after 3 years. **10 PTS**

Q3 For \$1000 investment that was earning simple interest for **18 months**, \$81.75 was earned. What was the annual (yearly) interest rate? **10 PTS**

Q4. You are the responsible Engineer for the Research and Development Department. Prepare a **6 months total budget** for the second half of 2021, **July to December** with the data below. **Prepare a cash flow** in any format that indicates total payments in monthly basis. Figures are in USD. Do not forget to include incoming money. **40 PTS**

- You will receive half (50%) of the funding from your company in July, the rest 50% you will receive in October.
- Monthly salaries are 10.000 USD (each month)
- Monthly AWS payment 1.000 USD (each month)
- You will buy a computer in September 3000 USD in cash
- In November you will pay 5000 for a testing company
- 6 months total lunch expense is 3000 USD but you have to pay them monthly
- December you will pay totally 3000 USD bonus as New Year's present

Q5 Considering the “**Factors Affecting the Demand**”, please comment on the below products or services, mention about the demand changes if there is. **30 PTS**

Example : Face masks : *Due to Covid-19 pandemic, there was a sudden and great demand increase in facemasks. When there was not enough supply, people could not find masks, the prices gone up. After there were plenty of masks, prices dropped again. Demand is same in last 6 months.*

DVD PLAYER

CIGARETTES

YOUTUBE VIDEO OF “PSY - GANGNAM STYLE”

ETS TOURISM COMPANY'S PRAG TOUR

KARDEŞLER STATIONERY SHOP ACROSS THE MARMARA UNIVERSITY

TURKISH AIRLINES PLANE TICKET TO ENGLAND

- **ANSWERS SHOULD BE HANDWRITTEN ON A4 SIZE PAPER AND MUST BE UPLOADED IN PDF FORMAT WITH YOUR FULL NAME AND STUDENT NUMBER.**
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- **INCLUDE and SIGN UNDERNEATH:**
“I HEREBY DECLARE AND CONFIRM THAT I HAVE NOT RECEIVED ANY ASSISTANCE FOR THIS EXAM, I ACCEPT ALL THE RESPONSIBILITY IF IT IS PROVED OTHERWISE”