United International University (UIU)

Mid Term Examination

IPE 401: Industrial Management

Fall Trimester: 2020

Total time: 1:00 hour Date: 06/12/2020 Total marks: 20

Section: A/B

There are 5 questions. You must answer question **1,2 &3**and any one of **4 &5**

1 Suppose "EYEBM" is a famous computer manufacturing company. They are not very good at making memory chips. On the other hand "Toshiba" is very good at making them and they are the market leader of memory chip manufacturing. You are a manager of "EYEBM" Company and want to acquire the technology quickly and with very low investment. So which type of technology acquisition method will you select? Which factors helped you to decide the acquisition method? Explain each answer. **[3]** **[CO2]**

2 Mr. Dante went to watch "James Bond 000"with his family to Star Cineplex .Unfortunately all the tickets at the tickets counters was sold. Suddenly a man came to him and wanted to sell him tickets at a higher price. He wanted to see the movie badly and bought the tickets from him. Was it Grey market or white market or Black market or something else? Explain. **[2]** **[CO2]**

3 The demand of raw material "Quick lime" for Abul Khair Steel Mill is about 5950 bags per week. Number of working days are 210. The cost associated with each order is about $81. The holding cost is 19%. The quantity schedule chart is given below. Determine **optimal order quantity** and **total cost** associated with it **[7.5]** [CO2]

Discount Number	Discount quantity	Discount %	Discount price$
1	0 to3000	No discount	12
2	3001to 4000	10%	?
3	4001and over	18%	?

4 (a) Two independent projects are given bellow: **[5.5]** **[CO1]**

Project "N"

Year	0	1	2	3	4	5
Cash Flow	-8451	4999	1946	1964	2164	4619

Project "M"

Year	0	1	2	3	4	5
Cash Flow	-9996	5783	3628	3314	1500	1299

If the Cost of capital is 22%compounded weekly select the project using IRR method(Trial and error)

(b) If you use NPV method with the given rate, will your decision be the same? Show with necessary calculations **[2]**

5 (a) Two Mutually exclusive projects are given bellow: **[5.5]** **[CO1]**

Project "Pizza"

year	0	1	2	3	4	5
Cash flow	-69871	21995	39958	26122	19588	28955

Project "Pasta"

year	0	1	2	3	4	5
Cash flow	-87871	25980	46689	26458	31158	48751

Select the project using Discounted payback period If the discount rate is 25% compounded quarterly and the authority wants pay back within 4.5 years

(b) If you use NPV method, will your answer be the same? Show with necessary calculations. **[2]** **[CO1]**

CO1	Apply Engineering economics and simple mathematics for Solving project selection problems for choosing the best possible project
CO2	Analyze various industrial problems by using operation management, technique, operation research technique and solve it.