## I D NO.

# PRESIDENCY UNIVERSITY, BENGALURU SCHOOL OF ENGINEERING 

Weightage: 40 \%
Max Marks: 80 Max Time: 2 hrs.
8 May 2018, Tuesday

## ENDTERM FINAL EXAMINATION MAY 2018

Even Semester 2017-18 Course: MGT 112 Engineering VI Sem B.Tech

Instructions:
(i) Read the question properly and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and Non-programmable calculators are permitted.

## Part A

(4 Q x $5 \mathrm{M}=20$ Marks)

1. What is the relationship between GNP at market price and GNP at factor cost
2. What is Disposable Income ,how is it different from per capita income
3. What are the reasons for differential time preference for money
4. Mohan bought a share 15 years ago for Rs 10.It is now selling for Rs 27.60.What is the compound growth rate in the price of the shares

## Part B

$$
\text { (4 Q x } 10 \mathrm{M}=40 \text { Marks) }
$$

5. Which organization estimate National Income in India? Discuss the growth/trend of Indian economy from a national income perspective.
6. What is Inflation ,discuss different types of inflation
7. Find the compound value of Rs 1000 interest rate being 12 percent annum if compounded annually ,semi-annually, quarterly and monthly for 2 years
8. Discuss the steps involved and the precautions to be considered while calculating national income under Value added method and Income method

## Part C

$$
\text { (1Q x } 20 \mathrm{M}=20 \text { Marks) }
$$

9. Your company is considering two projects, M and N , each of which requires an initial outlay of Rs. 50 million. The expected cash inflow from these projects are:

| Year | Project M ₹ millions | Project N ₹ millions |
| :---: | :---: | :---: |
| 1 | 11 | 38 |
| 2 | 19 | 22 |
| 3 | 32 | 18 |
| 4 | 37 | 10 |

- What is the payback period for M \& N if cost of capital is $12 \% /$
- What is the discounted payback period for $\mathrm{M} \& \mathrm{~N}$ if cost of capital is $12 \%$ ?
- If the two projects are independent and the cost of capital is $12 \%$, which project should the firm invest in? ( Hint : NPV)
- Find the IRR for project N if the cost of capital is $12 \%$.
- If the cost of capital is $15 \%$, what is MIRR for project M?

Weightage: 20\%
Max Marks: 40
Max Time: 1 hr .
29 March Thursday 2018

## TEST - 2

Even Semester 2017-18 Course: MGT 112 Engineering Economics VI Sem.

## Instruction:

(i) Read the question properly and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and Non-programmable calculators are permitted

## Part A

(4 Q x $4 \mathrm{M}=16$ Marks)

1. What is the difference between Law of Return to scale and Law of Variable proportion?
2. Distinguish Economies of scale and diseconomies of scale
3. Marginal cost (MC) =Marginal Revenue (MR); Explain the scenario.
4. Explain a cost function with an example

## Part B

(2 Q x $8 \mathrm{M}=16$ Marks)
5. Discuss Law of Variable proportion with diagram
6. What is a production function, detail a simple production function and explain the factors of production.

## Part C

(1Q x 8 M = 8 Marks)
7. Healthy Harry's Juice Bar has the following cost schedules:

| QUANTITY | VARIABLE <br> COST(Rs) | TOTAL <br> COST(Rs) |
| :---: | :---: | :---: |
| 0 | 0 | 30 |
| 1 | 10 | 40 |
| 2 | 25 | 55 |
| 3 | 45 | 75 |
| 4 | 70 | 100 |
| 5 | 100 | 130 |
| 6 | 135 | 165 |

a. Calculate average variable cost, average total cost, and marginal cost for each quantity.
b. Graph all three curves. What is the relationship between the marginal-cost curve and average total-cost curve? Between the marginal-cost curve and the average-variable-cost curve? Explain

# PRESIDENCY UNIVERSITY, BENGALURU SCHOOL OF ENGINEERING 

## TEST - 1

Even Semester 2017-18 Course: MGT 112 Engineering Economics VI Sem. All Programs

## Instruction:

(i) Read the question properly and answer accordingly.
(ii) Question paper consists of 3 parts.
(iii) Scientific and Non-programmable calculators are permitted

## Part A

(4 Q x $4 \mathrm{M}=16$ Marks)

1. What is Engineering Economics? Discuss the origin of Engineering Economics.
2. Point out 7 principles of Engineering economics
3. Discuss Law of Demand. Explain any two exceptions to Law of Demand
4. Discuss Law of Supply. Detail two determinants of law of supply

## Part B

$$
\text { (2 Q x } 8 \text { M = } 16 \text { Marks) }
$$

5. From the below Table No. 1 schedule calculate

Table No. 1

| Price of A (Rs) | Quantity demanded <br> of A (kg) | Quantity demanded <br> of B(kg) | Income of <br> Consumer |
| :---: | :---: | :---: | :---: |
| 6 | 100 | 20 | 2000 |
| 6.5 | 90 | 30 | 1800 |
| 7 | 70 | 50 | 1600 |
| 7.5 | 40 | 70 | 1400 |
| 8 | 10 | 85 | 1200 |

- Calculate the price elasticity of demand for $A$, if the price of $A$ increase from Rs7 to Rs8 per Kg ,and indicate whether the demand is elastic or inelastic
- Calculate the cross elasticity of demand for B when the price of A decrease from 7.50 to 6.50 .Are A and B complements or substitute
- What type of products are A and B. Calculate the income elasticity of demand for $A$ and B when the income of consumers increases from 1400 to 1800.

6. What is Elasticity of Demand? Explain different types of Price elasticity with graph

## Part C

7. A .The market for pizza has the following demand and supply schedules as shown in the table No. 2 :

| Price (\$) | Quantity <br> Demanded | Quantity <br> Supplied |
| :---: | :---: | :---: |
| 4 | 135 | 26 |
| 5 | 104 | 53 |
| 6 | 81 | 81 |
| 7 | 68 | 98 |
| 8 | 53 | 110 |
| 9 | 39 | 121 |

Table No. 2
Graph the demand and supply curves. What is the equilibrium price and quantity in this market?
7. B. Popeye's income declines and, as a result, he buys more spinach. Is spinach an inferior or a normal good. Discuss.

