

# **SUGGESTED SOLUTION**

**CA FOUNDATION** 

Test Code – JKN\_ECO\_01

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- **1.** There are three stages of the law of variable proportion :
  - (i) In the first stage (stage of positive marginal returns), output first increases at an increasing rate & then at a decreasing rate. Consequently, MP first increases, becomes maximum and then starts decreasing.
  - (ii) In the second stage (stage of diminishing marginal returns), output increases of a decreasing rate and then becomes maximum. Consequently MP continues to decline and becomes zero.
  - (iii) In the third stage(stage of negative marginal returns) output starts declining and MP becomes negative.

# [ANSWER: C]

2. Law of supply states that 'other things remaining the same, there is a positive or direct relationship between price of a commodity and its quantity supplied'. This is because at an increasing price, profit margin increases and produces respond positively to it by increasing supply.

# [ANSWER : D]

**3.** In imperfect competition (monopolistic or monopoly) both in the short run and long run at the equilibrium point (MR = MC), the firm operates at the falling portion of AC. It does not produce output at which AC becomes minimum. The difference between output at minimum AC & output at falling portion of AC is the excess capacity.

## [ANSWER : A]

**4.** Under the geometric / point method of measuring price elasticity on a straight line demand curve touching both the axes, we use the following formula.



In the above given figure, assuming H to be the mid – point, we get the following values

- $\rightarrow$  At mid point,  $e_p = 1$  (as L = U)
- $\rightarrow$  At point above mid point,  $e_p > 1$  (as L > 0)
- At point below mid point,  $e_p < 1$  (as L < 0)
- $\rightarrow$  At X axis,  $e_p = 0$  (as L = 0)
- $\rightarrow$  At Y axis,  $e_p = \infty$  (infinite) (as U = 0).

[ANSWER : B]

- 5. Product / Output behavior is studied under two time dimensions : -
  - (i) Short run  $\rightarrow$  we examine what happens to output when all factors are kept fixed & the quantity of one factor is increased (Law of variable proportion)
  - (ii) Long run  $\rightarrow$  we examine what happens to output when all factors are changed in the same proportion (law of returns to scale)

# [ANSWER : B]

**6.** Marginal rate of substitution (MRs) is the slope of indifference curve. If the indifference curve is convex to the origin the MRS is decreasing. This happens in case of imperfect substitutes.

If the indifference curve is linear then MRS is linear which mean equal units of one commodity are sacrificed for the other. This is possible only in case of two perfect substitutes. But this is only a theoretical possibility.

If MRS is rising then the indifference curve will be convex to the origin.

# [ANSWER : C]

7. In a monopoly firm both AR and MR are declining as the firm is a price maker. It can sell more by decreasing price. Therefore AR decreases. As it has to sell not only the new units but the previous one too at lower prices so MR falls and it lies half the way between AR & Y – axis.

[ANSWER : D]

8. The formula to calculate income elasticity of demand is written as

 $e_y = \frac{\% change in demand}{\% change in income}$ 

Here % change in demand is 20

& % change in income is 10

:. 
$$e_y = \frac{20}{10} = +2.0$$

[ANSWER : C]

9. According to the given data,

Q = 7 units ; ATC = Rs. 150; TFC = Rs. 350, AVC = ?

ATC = AFC + AVC

Here AFC = 
$$\frac{TFC}{Q} = \frac{350}{7} = 50$$

Now, ATC = AFC + AVC

150 = 50 +AVC

∴ AVC = Rs. 100

(ANSWER : D)

**10.** Utility is defined as the want satisfying power of a commodity. It is the expected satisfaction derived from the consumption of the good.

Utility is subjective, relative & free from ethical considerations.

[ANSWER : C]

**11.** Consumer surplus = willingness to pay – actual price

Willingness to pay is determined by marginal utility.

If MU is more than the price, there is consumer surplus.

In equilibrium, consumer surplus is zero because MU = price.

Now if MU is less than the price the consumer will not purchase the commodity as he behaves rationally.

# [ANSWER : B]

12. The relationship between AR, MR & price elasticity of demand (e) is expressed as

 $\mathsf{MR} = \mathsf{AR}\left(\frac{e-1}{e}\right)$ 

From the given data,

 $MR = 10\left(\frac{5-1}{5}\right) = 10\left(\frac{4}{5}\right) = 8$ 

## [ANSWER : B]

- 13. Ordinal/Indifference Curve analysis is based on the following assumptions : -
  - (i) the consumer is rational & possesses full information about all the respects of economic environment
  - (ii) the consumer is capable of ranking all combinations based on his preferences which are than expressed through indifference curves.
  - (iii) Choices of consumer are transitive i.e. if he prefers A over B and B over C then he would prefer A over C.
  - (iv) Consumer prefers combination which has relatively more commodities compared to other combinations.

## [ANSWER : B]

14. One of the properties of indifference curve is that higher indifference curve represents higher level of satisfaction than the lower one. This is because higher indifference curve may contain either more of X commodity or more of Y commodity or more of both X & Y commodities in comparison to lower indifference curves.

## [ANSWER : A]

15. Consumer equilibrium condition under indifference curve approach is

$$\mathsf{MRS}_{\mathsf{x}, \mathsf{y}} = \frac{P_{\mathsf{x}}}{P_{\mathsf{y}}}$$

Given  $MRS_{x, y} = 5$ ;  $P_y = Rs. 10$ , Substituting these value we get

$$5 = \frac{P_x}{10} \implies \qquad \therefore P_x = \text{Rs. 50}$$

## [ANSWER : A]

**16.** Objective of a firm is profit maximization. In case if it makes a loss it will try to minimize losses. Despite making losses it will continue to remain in business till it is able to recover all its variable costs. If it cannot do so then it should shut down or else it will end maximizing losses.

# [ANSWER : B]

**17.** Productive efficiency is a situation in which all the resource are fully utilized and goods and services are produced at the least cost.

Only in perfect competition productive efficiency is achieved as the firm in the long run operates at the lowest point of long run average cost curve (zero excess capacity) and moreover in such a market price equals average cost.

# [ANSWER : C]

18. An economic activity is the one which involves monetary transaction. It is basically concerned with earning income in any form. When the motive of any activity is not to earn income from it then it becomes non – economic activity e.g. playing a friendly cricket match or teaching one's own daughter or duties discharged by a housewife. In all these cases no money is paid.

Manufacturing chairs at subsidized ratios is an economic activity because the underlying motive is to earn profit from its sale.

As the above mentioned three activities involve exchange of money they are economic activities.

#### [ANSWER : D]

- **19.** Law of returns of scale explains long run output behavior when all factors are changed in the same proportion. There are three types of returns to scale
  - (i) increasing returns to scale if percentage increase in output is greater than same percentage increase in all inputs.
  - (ii) decreasing returns to scale if percentage increase in output is less than same percentage increase in all inputs.
  - (iii) Constant returns to scale if percentage increase in output is equal to same percentage increase in all inputs. One will encounter decreasing returns to scale if output increase by less than 10% when all inputs are increased by 10%.

# [ANSWER : A]

**20.** Supply of labor curve is backward bending. This is due to choice of labor between work and leisure. In the beginning when wage rate is increased, supply of labor too increases. But beyond threshold level if wage rate is increased then laborer would prefer to enjoy leisure rather than work.

## [ANSWER : C]

**21.** Objective of a firm is profit maximization. In case if it makes a loss it will try to minimize losses. Despite making losses it will continue to remain in business till it is able to recover all its variable costs. If it cannot do so then it should shut down or else it will end maximizing losses.

When the firm is at shut down point it is recovering its variable costs but fails to recover its fixed costs. That is at shut down point total loss of the firm is equal to TFC.

#### [ANSWER : D]

22. One of the important characteristics of perfectly competitive industry is the freedom to enter and leave the industry. New firms are willing to enter the industry if the existing firms earn abnormal profits and the existing firms would like to exit if they make losses. Freedom to enter or exit is not possible without free or perfect mobility of resources (land, labor or capital).

# [ANSWER : D]

23. Business cycle refers to recurring ups and downs in economic activity around the trend (long term GDP growth rate). It has distinct phases like peak, contraction, trough, recovery & expansion. During expansion which starts after the recovery, aggregate economic activity (national income, production, consumption, aggregate demand, investment, profit, bank credit, stock market etc. is increasing and the economy moves towards a peak.

# [ANSWER : A]

24. An indifference curve shows all possible combinations of two goods which give same level of satisfaction to the consumer. Indifference curve is downward sloping. It is convex to the origin due to diminishing marginal rate of substitution. A higher indifference curve gives higher level of satisfaction than a lower indifference curve as it contains more of one commodity or more of both the commodities.

## [ANSWER : A]

25. Demand and supply are measured over a period of time so they are flow concepts. Capital is man – made factor of production which is measured at a point of time. So capital is a stock concept. Income is generated by using capital. This income is measured over a period of time. So, income is a flow concept.

## [ANSWER : C]

**26.** Accounting Profit = TR – explicit costs

Economic Profit = TR – explicit costs – Implicit costs

Explicit costs are payments made to outsiders for providing various factors or services. Implicit costs are costs of using self – owned resources in one's own business. Explicit costs are recorded in books of accounts but implicit costs are not recorded in books of accounts.

Here as per the given data,

TR = Rs. 1,00,000 ; Explicit cost = Rs. 60,000

Implicit cost = Rs. 30,000

∴ Accounting Profit = 1,00,000 – 60,000 = Rs. 40,000

& Economic profit = 1,00,000 - 60,000 - 30,000 = 10,000

#### (ANSWER : D)

Modern economics is divided into two branches – microeconomics & macroeconomics.
Microeconomic studies the behavior of individual economic agents (buyer or seller / firm).
Applied microeconomics is known as business economics.

Macroeconomics studies the behavior of aggregated economic variables (like national income, employment etc.)

Behavioral economics is the study of psychology as it relates to the economic decision making processes of individuals and institutions.

## (ANSWER : B)

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Macroeconomics studies the behavior of aggregated economic variables (like national income, employment etc.)

Behavioral economics is the study of psychology as it relates to the economic decision making processes of individuals and institutions.

Study of firms is covered under microeconomics.

## (ANSWER: B)

- 29. There are three types of Indicators:-
  - (a) Leading Indicators: They help in forecasting as they change before the economy changes.
  - (b) Coincident Indicators: They change along with the change in economic activity.
  - (c) Lagging Indicators: They change after economic activity has changed. They are useful in confirming certain changes.

#### (ANSWER : D)

- **30.** Elasticity of supply measures the degree of responsiveness of quantity supplied of a commodity to a given change in its price. There are five values of elasticity of supply :
  - (i) Relatively elasticity supply flat supply curve
  - (ii) Relatively inelastic supply steep supply curve
  - (iii) Unit elastic supply 45° line from the origin
  - (iv) Perfectly inelastic supply vertical supply curve
  - (v) Perfectly elastic supply horizontal supply curve which implies that elasticity of supply is infinite (at a given price the firm can sell as much as it wishes to but of any other price supply becomes zero).

## (ANSWER : A)

**31.** Firm is said to be in equilibrium when it is either maximizing profit of minimizing losses.

Equilibrium condition is stated as MR = MC

If MR > MC the firm will benefit by expanding till MR = MC to maximize profit. If MR < MC the firm will benefit by expanding till MR = MC to minize losses .

# (ANSWER : C)

**32.** Under indifference curve / ordinal approach a consumer is said to in equilibrium when he reaches the highest possible indifference permissible by his budget. At this point his price line/ budget line becomes tangent to indifference curve.

# (ANSWER : D)

**33.** Explicit costs are expenses incurred on outside parties for the inputs that they provide.

Implicit costs are the costs of self - owned resources used in one's own business. Accounting profit considers only explicit costs. It is calculated by using the following formula

Accounting Profit = Total revenue – Total cost

Economic profit considers both explicit and implicit costs. It is calculated by using the following formula

Economic Profit = Total Revenue – Total Explicit cost & Total Implicit cost

# (ANSWER : C)

- **34.** Business cycle refers to the fluctuation of aggregate economic activity around the trend line. There are 4 phases of a business cycle in the following sequence :-
  - (i) Peak aggregate economic activity is at its highest level
  - (ii) Recession aggregate economic activity slows down
  - (iii) trough aggregate economic activity is at its lowest
  - (iv) recovery aggregate economic activity starts picking up once again.

# (ANSWER : C)

- **35.** Business cycle refers to the fluctuation of aggregate economic activity around the trend line. There are 4 phases of a business cycle in the following sequence :-
  - (i) Peak aggregate economic activity is at its highest level
  - (ii) Recession aggregate economic activity slows down
  - (iii) trough aggregate economic activity is at its lowest
  - (iv) recovery aggregate economic activity starts picking up once again.

Peak and troughs are collectively known as turning points because peak gives way to recession & trough gives way to recovery and again a new peak.

## (ANSWER : C)

**36.** Positive economic statements describe the events as they are. These statements are based on facts observations. On the contrary normative economic statements are prescriptive. They are in the nature of suggesting how events are expected to happen. These statements are in the nature of 'should be/ ought to be.' Here (A), (B) & (D) are positive economic statements.

#### (ANSWER : B)

**37.** Average cost (AC) is cost per unit of output produced. Marginal cost (MC) is additional cost of producing an additional unit of output.

The direction of AC is determined by MC. If MC > AC then AC will tend to rise. If MC < AC then AC will tend to fall.



As is evident from the figure when AC is rising, MC Must be above the AC curve.

**38.** One of the important features of perfect competition is the freedom for the firm to enter or leave the industry. Now free entry and exit of firms is possible only in the long run.

When the industry as a whole is earning abnormal profits, new firms enter this industry. Supply increases and so price tends to fall. Abnormal profit decreases till it is converted into normal profit (P = AC)

On the other hand when the industry as a whole is reporting losses, some firms decide to exit. This reduces supply and tends to increase price. As a result loss starts decreasing & continues to decrease till it is converted to normal profit (P = AC)

## (ANSWER : A)

**39.** Normative science is also known as prescriptive science. It answers the question what ought to be?" or "what it should be "? It is based on opinions, value judgments, views and perspectives of the observer / analyst.

Robbins defined economics as a science of scarcity. Law of demand is not always true as three are exceptions to it.

## (ANSWER : A)

**40.** Labor in economics is defined as the exertion of physical and mental effort with an objective of earning some economic reward.

In this sense, singing a song before friends or flying kite for pleasure or teaching to friends in a library does amount to work but it involves no money payment so it is not labor. On the other hand teaching to CA students by a teacher fetches money, so if is labor.

#### (ANSWER: A)

<sup>(</sup>ANSWER: B)

**41.** Price elasticity of demand is defined as the measure of responsiveness of quantity demanded of a commodity to a given change in its price.

For commodities which are either very highly price or lowly – priced, their elasticity is relatively low.

If a good has many substitutes its price elasticity will be relatively high as large number for customers will either switch to or away from this good with slight decrease or increase in its price.

# (ANSWER : C)

**42.** Marginal product is defined as a change in total product due to an additional unit of a variable input employed.

In other words marginal product is the slope of total product.

If total product is maximum then marginal product will become zero.

If total product starts decreasing, marginal product becomes negative.

# (ANSWER : B)

**43.** Price discrimination is defined as a practice whereby the seller sells a given commodity at different prices to different buyers. He discriminates prices among the group of buyers on criteria such as age gender income, use of the commodity, etc. It needs to be noted that in price discrimination cost of the product remains the same. In perfect competition price discrimination is not possible as the firms are price takers.

# (ANSWER : C)

**44.** Labour in economics is defined as any physical and mental exertion by human beings with an objective of earning some economic reward.

Labour is inseparable from the laborer.

Labor is highly perishable in the sense that a day's labor lost cannot be completely recovered. This results in low bargaining power of laborers.

In the initial stages, the supply of labor and wage rate are directly related to each other.

## (ANSWER : C)

**45.** Indifference curve shows all possible combination of two goods that gives the consumer equal level of satisfaction. It depicts tastes & preferences of consumers. Indifference map is a set of indifference curves to it depicts complete picture of consumer tastes & preference (many levels of satisfaction perceived by the consumer with respect to two goods are drawn on the same graph).

# (ANSWER : C)

**46.** Cross elasticity of demand measures the degree of responsiveness of quantity demanded of a good due to a change in price of related goods. If two goods are substitutes then the value of cross elasticity of demand is positive as increase in price of one good will increase the

demand of its substitutes. Now if two goods are perfect substitutes then a change in price of one commodity will lead to an infinite change in quantity demanded of its substitute. This makes its value of cross elasticity infinite. This is only a theoretical possibility.

# (ANSWER : A)

**47.** Objective of a firm is profit maximization. In case if it makes a loss it will try to minimize losses. Despite making losses it will continue to remain in business till it is able to recover all its variable costs. If it cannot do so then it should shut down or else it will end maximizing losses.

# (ANSWER : A)

- **48.** There are three main types of economic systems to address the problem of scarcity of resources :
  - (i) Capitalism is a system in which economic decisions are taken by the market and government intervention in the functioning of the economy is the least.
  - (ii) Socialism is a system in which economic decisions are taken by the government through planning mechanism. Freedom provided to the functioning of market forces is almost nil.
  - (iii) In mixed economy one finds the coexistence of public & private sectors. In such as economy some decision are taken by the market & some by the government.

Presently no country in the world has a purely socialist economic system.

## (ANSWER : B)

**49.** Stock concepts are variables that are measured at a point of time (e.g. water stored in a dam, balance sheet, inventory, etc.) Flow concepts are variables that are measured over a period of time (e.g. water in a river, profit & loss account, income of a firm etc.)

As quality demanded is measured over a period of time, it is a flow concept.

# (ANSWER : A)

**50.** Future production depends on the productive capacity of the economy which in turn depends on the rate of capital formation or investment. Capital formation is defined as the sustained increase in the stock of real capital (machines, equipment, plant, etc.) in a country over a period of time. It is understandable that higher the production of capital goods today, more will be the production of consumer goods in the future. But if less of capital goods are produced today then it would lead to less production of consumer goods in the future.

# (ANSWER : D)

**51.** Expansion refers to the increase in quantity supplied of a commodity due to increase in its price, other factors remaining the same. It is movement upward on the supply curve.

# (ANSWER : A)

**52.** Central a fundamental economic problem refers to questions like – what to produce, how to produce, for whom to produce and how to accelerate economic growth. These problems

arise due to the scarcity of resources (land, labor, capital and entrepreneurial skill). Human wants are unlimited but all of those wants cannot be satisfied as output remains restricted determined by the limited availability of resources.

# (ANSWER : A)

**53.** Firms are price – takers in perfect competition. In such a market at a given price the firms can sell as much as they want. When the price is fixed marginal revenue equals average revenue because each additional unit is sold at the same price,



## (ANSWER : B)

**54.** Average cost (AC) is cost per unit of output produced. Marginal cost (MC) is additional cost of producing an additional unit of output.

The direction of AC is determined by MC. If MC > AC then AC will tend to rise. If MC < AC then AC will tend to fall.



As is evident from the figure when AC is rising, MC Must be above the AC curve. MC intersects AC at its minimum point. If it intersects AC to the left or right of the minimum point then that would violate mathematical relationship between AC and MC.

# (ANSWER : C)

55. Microeconomics is the study of behavior of individual economic agents (buyer /seller). Central theme of microeconomic analysis is determination of prices – of goods, services & factors of production. So it is also known as value/ price theory. Issues like economic growth, inflation & employment fall in the domain of macroeconomics.

(ANSWER : D)

**56.** Apart from profit maximization there can be many other goals that the firms strive to achieve.

Baumol opines that the Ultimate goal of a firm is sales revenue maximization. Simon is of the opinion that firms try to earn satisfactory level of profits.

Williamson feels that firms try to maximize managerial utility function.

#### (ANSWER : A)

- **57.** Firms face multiple problems when in the business finance, technical, organizational, marketing, etc. On the marketing front the problems can be summarized by 4 Ps
  - (i) Price discount, credit terms etc.
  - (ii) Place distribution, logistics, etc.
  - (iii) Product design, characteristics etc.
  - (iv) Promotion method of advertising

# (ANSWER : D)

**58**. Consumer's goods are those goods which are ready for use/ consumption. They may be durable or non – durable examples include residential houses, readymade clothes, food, etc.

Producer's goods are those goods which help in further production. They may be durable or non - durable examples include raw materials, machines, plant & equipment, etc.

## (ANSWER : B)

**59**. Statistical methods of forecasting demand are based on the use of time – series data. We try to extrapolate historical data into the future to forecast demand. Graphical method & least squares method is used to determine trends of demand/ sales on the basis of which projection in future can be done.

## (ANSWER : C)

**60.** Demand forecasting refers to the scientific attempt to anticipate demand sometime in future based on past data and current trends.

Firms are interested in short – term demand forecasting to enable them to take tactical /Operational decisions.

On the other hand long term demand forecasting enables firms to take strategic decisions like expanding, restructuring, diversifying etc.

#### (ANSWER : B)

1	В	
2	D	
3	А	
4	В	
5	С	
6	С	
7	D	
8	А	
9	А	
10	В	
11	С	
12	D	
13	В	
14	А	
15	В	
16	С	
17	С	
18	С	
19	С	
20	С	
21	С	
22	D	
23	D	
24	D	
25	D	
26	А	
27	С	
28	А	
29	В	
30	С	
31	D	
32	D	
33	С	
34	В	
35	В	
36	В	
37	D	
38	A	
39	D	
40	D	

Part B BCK