Boot-Camp Assessment [Paper 2] SA		Sub-sections (A)	
Issued On:	17th June 2021	Exam Year [Batch]	**2022**
Deadline:	21st June 2021	Format	**Virtual**
Marks : Time	**50 marks : 1 Hour**	Units - Essentials Covered	**1 – 4**

[01] A production possibilities frontier is a simple model of

(1) Scarcity and allocation
(2) Prices and output
(3) Production and costs
(4) Inputs and outputs
(5) Demand and supply

[02] When firms in an economy start producing more computers and fewer televisions, they are answering the _ _ _ _ _ _ _ _ question.

(1) "when"
(2) "for whom"
(3) "what"
(4) "where"
(5) "how"

[03] The law of diminishing marginal utility holds that,

(1) As people consume more of a good, total utility increases, then decreases.
(2) Both water and diamonds have a low marginal utility in the desert.
(3) Marginal utility diminishes when too much is consumed.
(4) Increasing consumption leads to smaller additions to total utility.
(5) Total utility actually decreases for some consumers if they consume too much.

[04] Assume with regards to a certain consumer good, the market demand curve is downward sloping and market supply curve is upwards sloping. The provision of a unit production subsidy on this product, shall impact the consumers and producers surplus in which of the following manner

	Consumer Surplus	Producer Surplus
(1)	**Decrease**	**Decrease**
(2)	**Decrease**	**Increase**
(3)	**Increase**	**Increase**
(4)	**Increase**	**Decrease**
(5)	**Increase**	**Unchanged**

[05] A "free good" in economic terms can be best described as one which

(1) Is supplied at a zero price to the consumer.
(2) Is provided free by the government
(3) Does not use scarce resources in its production.
(4) Is extracted directly from the oceans
(5) Can be produced at constant opportunity cost.

[06] If a given change in the price of a good results in no change in total producer revenue.

(1) The demand for the good must be elastic
(2) The demand for the good must be inelastic
(3) Buyers must not respond very much to a change in price.
(4) The demand for the good must be unit elastic
(5) The demand for the good must be zero elastic

[07] A student on a scholarship in university is trying to decide whether to take economics or Sociology. If they were both covered by the scholarship and if they had the same book costs, the opportunity cost of taking economics would be;

(1) Zero, as he is on a scholarship.
(2) Not taking sociology.
(3) The same as sociology.
(4) The cost of university fee and books.
(5) The cost of economic books.

[08] Economics may best be defined as a

(1) Scientific study of supply and demand.
(2) Study of efforts to satisfy seemingly unlimited wants with scarce resources.
(3) Limited description of economic activities.
(4) Branch of sociology.
(5) Study of human behaviour and productivity.

[09] Market demand and supply curves for a certain consumer good is represented by the following equations:

Demand (Qd) = 80 – 2P **Supply (Qs) = -20 + 3P**

Then the equilibrium quantity and price would be:

(1) 40 units and Rs. 20 (2) 56 units and Rs. 12 (3) 50 units and Rs. 15
(4) 60 units and Rs.10 (5) 40 units and Rs. 120

[10] A local store noticed that when it increased the price of milk from $2.50 per gallon to $3.50 per gallon, it sold the same amount of milk per week (165 gallons). Since everything else remained the same, we would say the

(1) Demand for milk is perfectly elastic
(2) Demand for milk is elastic
(3) Demand for milk is perfectly inelastic
(4) Demand for milk is unitary elastic
(5) Law of supply does not apply in this situation

[11] All of the following except one would increase the amount of a particular model of a Ford automobile that buyers would like to buy. Which is the exception?

(1) An increase in buyers' incomes.
(2) Increased prices of other Ford models.
(3) An expected future increase in the price.
(4) An increase in the country's population.
(5) A decrease in the price of steel.

[12] Total surplus is the area;

(1) Above the supply curve and below the price.
(2) Below the demand curve and above the price.
(3) Below the demand curve and above the supply curve.
(4) Below the supply curve and above the price.
(5) Above the demand curve and below the price.

[13] A tax placed on a good that is a necessity for consumers will likely generate a tax burden that;

(1) Falls more heavily on sellers.
(2) Falls entirely on sellers.
(3) Falls more heavily on buyers.
(4) Falls entirely on buyers.
(5) Is evenly distributed between buyers and sellers.

[14] In the long-run equilibrium of a competitive markets:

(1) Yields economic inefficiency in the absence of external costs.
(2) Results in output being produced at maximum opportunity cost.
(3) The surviving firms produce at economic efficiency and earn normal profits
(4) Guarantees each firm long-run economic profits.
(5) May result in economic losses.

[15] In the short-run, a firm's product curves exhibit all of the following relationships except:

(1) Average product of labour (APL) is at its maximum when marginal product of labour (MPL) is equal to APL.
(2) Total product of labour (TPL) is at its maximum when MPL= 0.
(3) TPL begins to decrease when APL begins to decrease.
(4) When MPL < APL, APL is decreasing.
(5) MPL reaches a maximum sooner than does either APL or TPL.

[16] Which of the following is a fundamental aspect of the free market system?

1) A high degree of government involvement
2) Public ownership of resources
3) Private property ownership
4) Central planners set wages and prices
5) Employers consult government agencies for guidance in hiring workers with appropriate job skills.

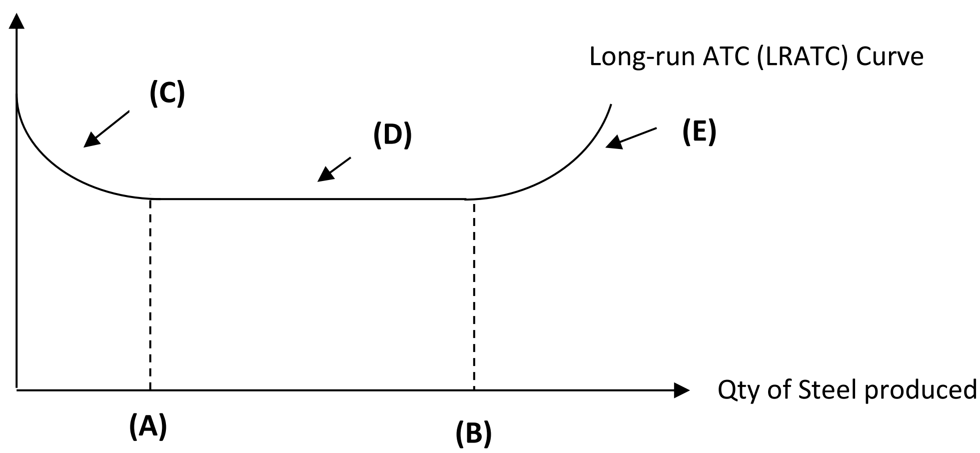
[17] In a market economy, the price mechanism can achieve all the following except

1) Signalling changes in consumer tastes.
2) Causing supply to respond to changes in demand.
3) Eliminating excess supply and excess demand
4) Ensuring the fair distribution of all types of goods.
5) Rationing limited resources among alternative uses.

[18] The economy based on capitalism includes all of the following characteristics except

1) A price system based on demand and supply
2) A system of private property
3) Self-interest among households and enterprises
4) Freedom of enterprise
5) Centralised planning

Answer Questions [19] to [22] based on the following Long-run ATC curve of a given firm



[19] In the graph above, point (A) is,

(1) The minimum efficient scale.
(2) The maximum efficient scale.
(3) The point where economies of scale begin.
(4) The point where diseconomies scale begin.
(5) The optimal level pf output.

[20] The region marked (D) is characterized by;

(1) Economies of scale.
(2) Increasing returns.
(3) Constant returns to scale.
(4) Diseconomies of scale.
(5) Maximum average long-run cost.

[21] Which of the following statements is true regarding the graph?

(1) Returns to scale are constant throughout.
(2) As production increases, the amount used of all inputs-including the quantity of labour and the size of the factory increases.
(3) In region (E), there isn't enough space for all the workers required to produce at this level and they are getting in one another's way.
(4) The maximum efficient scale is at a production level of zero.
(5) The maximum efficient scale is marked by point (A).

[22] Which of the following points or regions on the graph is associated with diseconomies of scale?

(1) A
(2) B
(3) C
(4) D
(5) E

[23] The main function of price in a market economy is to

1) Generate more profits to the entrepreneur
2) Guide households to choose investment opportunities
3) Determine the elasticity of demand curves
4) Improve the distribution of income
5) Allocate scarce resources among alternative uses

[24] "The consumer price index increased by 4.2 percent in the first quarter of this year." What type of statement is this?

(1) Normative
(2) Negative
(3) Positive
(4) Subjective
(5) Biased

[25] The difference between microeconomics and macroeconomics is that,

(1) Microeconomics looks at supply and demand for goods, macroeconomics looks at supply and demand for services.
(2) Microeconomics looks at prices, macroeconomics looks at inflation.
(3) Microeconomics looks at market demand and supply, macroeconomics looks at aggregate demand and supply.
(4) Microeconomics looks at national issues, macroeconomics looks at global issues.
(5) Microeconomics looks at consumer sovereignty, macroeconomics looks at international trade.

MCQ Answer Summary

Question	Answer	Question	Answer
01	1	16	3
02	3	17	4
03	4	18	5
04	3	19	1
05	3	20	3
06	4	21	2
07	2	22	5
08	2	23	5
09	1	24	3
10	3	25	3
11	5		
12	3		
13	3		
14	3		
15	3		

Boot-Camp Assessment [Paper 2] SA		Sub-section (B)	
Issued On:	17^{th} June 2021	Exam Year [Batch]	**2022**
Deadline:	21^{st} June 2021	Format	**Virtual**
Marks : Time	**50 marks : 1 ¼ Hour**	Units - Essentials Covered	**1 – 4**

Question [01]

(A) **Explain,** using examples, the **difference** between a **free good** and an **economic good**

Economic goods refer to goods which are **limited in supply**. Economic goods are a result of a purposeful **human involved production process,** which combines **limited resources**, alternative uses. Therefore economic goods represent a **resource cost (opportunity cost, positive marginal cost)**, **price**, problem of choice and **specific ownership.**

Examples: clothes, food, vehicles, furniture etc **[02 marks]**

Non-economic or free goods refer to goods available in **abundance** (infinite in supply) at **zero price**, when the supply is available. These goods do not represent a deliberate human involved production process or use of limited resources, therefore **do not represent a resource cost** (zero opportunity cost, zero marginal cost).

Examples: fresh air, rain or river water, sunlight etc..

[02 marks, total 04 marks]

Additional: Economic goods will not become non-economic goods under any circumstance, but free or non-economic goods can become economic goods in certain situations [bottled **water**, **oxygen** used by diver or provided to a patient...]

(B) **"If all people would economize, the problem of scarcity would be solved".** Do you agree or disagree? Explain

Cannot agree **[01 mark]**

The process of economizing, shall ensure highly efficient utilization of limited resources, while such an action will not solve the problem of scarcity.

This is because the problem of scarcity is not created as a result of uneconomic or inefficient use of resources, rather it is a relative problem, caused by the limitedness of the existing stock of resources in comparison to unlimited nature of human wants.

As long as human wants remain unlimited in nature, and resources required to fulfil such wants remain limited, scarcity shall continue to be an unsolved problem.

[01 mark each, sub-total 03 marks] [Total 04 marks]

(C) Why **money** is **not** considered **capital** in economics [02 marks]

Capital in economics refers to **manmade** production aids. Such capital items **'directly contribute'** in the process of producing goods and services. On the other hand **'money' cannot be directly used to produce any good or service**. Accordingly money in economics, is not considered as capital nor a factor of production.

[02 marks]

Alternatively:

- Capital in economics is considered as a 'real asset', on the contrary money, is not a real asset rather a financial asset
- Money (or financial assets) can be used to purchase or acquire capital goods. Therefore money can be viewed as a means or medium of obtaining capital.

[01 mark for one of the above points, total 02 marks]

Question [02]

(A) **Distinguish** between productive efficiency and allocative efficiency [04 marks]

Productive efficiency refers to the process of using limited resources of an economy to produce the required combination of goods and services at the **'Lowest Production (or Resources) Cost'**.

Accordingly at productive efficiency an economy should be either, utilising their endowment of resources in order to generate the **maximum** level of **outpu**t possible **OR** producing a given level of output, utilising the **minimum** possible level of resource **inputs,** under normal conditions.

[01 mark]

Since productive efficiency, essentially requires the attainment of **full employment** and **full production**, in such a situation the economy will **always operate** (produce) at a **point located on its production possibilities frontier.**

[01 mark] [Sub- total 02 marks]

<u>Alternative Definition:</u>

Productive efficiency is said to be created in a situation where, an economy is unable to increase the output of a given product category, without decreasing or foregoing the output of another product category. Such a situation infers the economy is operating on its PPC.

[02 marks]

Allocative efficiency is the process allocating limited resources of a society, towards the production of a combination of goods and services, **most required or needed** by the given **society.**

[01 mark]

It **implies** the given economy is **operating on a specific optimum point of output on its production possibilities curve** (i.e. at the 'Optimum Product Mix'). Such an optimum product combination is arrived at when the **Marginal Cost (MC)** of producing an incremental unit of output is **equal** to the **Marginal Benefit (MB) or Price (P)** of consuming an incremental unit [**MB = MC** or **P = MC].**

[01 mark]
[Total 04 marks]

(B) **List** the three fundamental questions any economic system must answer and **outline briefly** the three basic economic systems that have evolved to answer these questions.

[06 marks]

<u>Fundamental (Basic) Questions or Problems:</u>

(1) What to produce, in which quantity
[Additional: allocation problem, production decision]

(2) How to produce
[Additional: production problem, choice of techniques decision]

(3) Whom to produce
[Additional: distribution problem, distribution decision]

[01 mark each]

Basic Economic Systems:
[**Solving basic economic problems**, based on **mechanism of resource allocation**]

- Market Economic System
- Command (Centrally Planned) Economic System
- Traditional Economic System
- Mixed Economic System

[01 mark each, maximum 03 marks]

***No marks if terms such as 'Socialist/Communist' or 'Capitalist' economic system is used**

Question [03]

(A) **Explain** the **'Law of demand'** through the income and substitution effect

[04 marks]

Substitution effect of a price change is the tendency of consumers to change quantity demanded of a given good as a result of its relative price changing.

When all other factors affecting demand of a product are held constant *(specially price of substitute goods and consumers' nominal income)*, if only the price of the product concerned increases, consumers "Substitute away" from the product concerned (i.e. decrease quantity demanded), since it becomes relatively expensive and if price decreases, consumers shall 'Substitute in favour' of the product concerned, since it becomes relatively cheap.

Income effect of a price change is the change in quantity demanded of a product because the change in its price has the effect of changing a consumer's real income.

When all other factors affecting demand of a normal good are held constant *(specially consumers money income and price of related products)*, if the price of the product concerned increases, the quantity demanded for the product is decreased, since the consumers' real income decreases *(i.e. consumers' become relatively poor),* and if price falls, consumers shall increase their quantity demand, since consumers' real income increases (i.e. consumers' become relatively richer).

[02 marks each, Total 04 marks]
[Describing **either** an **increase** or **decrease** in price is sufficient]

(B) **Explain** the **'Law of Supply'** [02 marks]

Law of supply refers to the direct or positive relationship between a change in the price of a given product and its quantity supplied, when non price factors affecting the supply of the product are held constant, at a given point of time.

<u>Alternatively</u>

Law of supply is where, when all other factors affecting supply of a product are given, when the price of the product increases quantity supplied increasing and when price decreases quantity supplied decreasing.

[02 marks]

(C) **Explain briefly** what is mean by **'Price of related products'** in the context of supply**, and** how it **affects** the **market supply** of a product

[04 marks]

In supply analysis the term price of related products refers to '**Production Substitutes** or Goods Substitutable in Production'.

Production substitutes refer to **two goods** which **can be produced by employing similar resources** and **basic production technology** (i.e. goods with high mobility of resources of among them).

In addition goods with perfect mobility of resources or production subsidies, the price of goods which are **jointly produced (byproducts)** can also be considered under **price of related products**.

The relationship between a change in the price of a related product (s) and the supply of the product under consideration tends to be **indirect or negative.**

[01 mark each, total 04 marks]

Question [04]

(A) What factors determine the **price elasticity of demand (PED)** for a consumer good?

- The abundance of substitute goods
- The percentage of consumers' income spent on the product
- The nature of the product under consideration, in terms of luxury good or necessity
- The definition of the product (in terms of broad or narrow)
- The number of uses or utilities of the product
- The time lapsed (passed) after a change in price

[01 mark each, maximum 04 marks]

(B) Why is a **downward sloping linear demand curve** more price elastic at higher prices ranges and more price inelastic at lower price ranges?

The point price elasticity of a downwards sloping linear demand curve is estimated using the following formula (point price elasticity of demand):

$$\textbf{Point PED} = \frac{\Delta Qd}{\Delta P} \times \frac{P}{Qd}$$

With regards to a linear demand curve as presented below, the first component of the point Price Elasticity of Demand (PED) formula, i.e. the slope or reciprocal of the slope of the demand curve. **Although the value of the slope (or reciprocal of slope) is constant,** the point **PED coefficient value tends to change from one point to another along a linear demand curve.**

This is because the price: quantity ratio or the second component of the point price elasticity of demand formula tends to change or vary along the curve. **Point PED coefficient value** will **gradually decrease** when **moving downwards from left to right along a traditional linear demand curve.**

[02 marks]

The principal reasons for this specific point PED coefficient behavior can be outlined as follows:

- At the higher or upper price range of a demand curve [top left region], the overall point PED coefficient value becomes a higher value (i.e. elastic), since price is high and quantity is low when moving downwards along the curve in this range.
- At the lower or bottom price range of a demand curve [bottom right region], the overall point PED coefficient value becomes a lower value (i.e. inelastic), since price is low and quantity is high when moving downwards along the curve in this range.

[01 mark each] [Total 04 marks]

(C) Assume the market demand and supply equations of a product traded in a given market are as follows:

Qs = 40 + 10P **Qd = 100 – 10P**

Derive the **Excess Demand (Ed)** and **Excess Supply (Es) equations** of this market

Ed	**= Qd – Qs**	**Es**	**= Qs – Qd**
	= (100 – 10P) – (40 + 10P)		**= (40 + 10P) – (100 – 10P)**
	= 100 – 40 – 10P - 10P		**= 40 – 100 + 10P + 10P**
Ed	**= 60 – 20P**	**Es**	**= - 60 + 20P**

[01 mark each] [Total 02 marks]

Question [05]

(A) Assume that the market demand curve for sugar is **Qd = 260 – 3P** and the market supply curve of sugar is **Qs = -140 + 2P**

(I) Suppose the government imposes an excise tax of Rs. 5 per unit of sugar. What is the price the consumers pay for a unit of sugar after the tax is implemented

[02 marks]

(II) What is the change in consumer surplus as a result of the tax?

[04 marks]

(I) Qd = 260 – 3P   Qs = -140 + 2P

Pb = Consumers (buyers) price
Ps = Producers (suppliers) price

Pb = Ps + T   T = Amount of tax
Ps = Pb – T

260 – 3Pb = -140 + 2 (Pb – T)
260 – 3Pb = -140 + 2 (Pb – 5)
260 – 3Pb = -140 + 2Pb – 10
410 = 5Pb
82 = Pb

Consumer Price = **82.00** **(2 marks)**

(II) **Change in consumer surplus after the tax**

Consumer surplus (before tax)

Market price (before tax) = 80.00
Quantity purchased (before tax) = 20 Units

$$\text{Consumer surplus} = \frac{(86.67 - 80.00) \times 20}{2} = \underline{\underline{66.67}}$$

(01 mark)

Consumer surplus (after tax)

Market price (before tax) = 82.00
Quantity purchased (before tax) = 14 Units

Consumer surplus = $\frac{(86.67 - 82.00) \times 14}{2}$ = **32.62**

(01marks)

Change in consumer surplus = (66.67 – 32.62) = **34.04** (34.00)

(02 marks) (Total 04 marks)

(B) **Explain** the difference between explicit and implicit costs giving examples

[04 marks]

Explicit cost is the opportunity cost of inputs which the firm purchases from outside parties. This cost involves an actual monetary payment.

Examples: Wages on external labour, cost on raw materials, cost on transportation, electricity and advertising expenses

(02 marks)

Implicit costs are the costs that represent the value of resources used in production for which no monetary payment is made. They represent the imputed value that the firm's resources could command in their best alternative uses.

Examples:

- Foregone salary for the owner of the firm who used his/her time to conduct the business
- Foregone interest income because the owner invested his/her funds in the firm, rather than investing in another interest income earning alternative
- Foregone rental income from using the owners land and building for his /her own business
- Normal profits

(02 marks) (Total 04 marks)