COVENANT UNIVERSITY
NIGERIA

TUTORIAL KIT
OMEGA SEMESTER

PROGRAMME: ECONOMICS

COURSE: ECN 121

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ECN 221

PRINCIPLES OF ECONOMICS (MICRO)

BY

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1. The long run equilibrium under monopolistic competition requires that the firms demand curve be tangent to its (a.) Total cost curve (b.)Average cost curve (c.) Marginal cost curve
2. Under price leadership tacit collusion on firm sets Price and others (a.) Decline (b) Resist (c) Follow.
3. Under the excess capacity theorem of the monopolistic completion the minimum average cost is the considered the firms (a.) Maximum capacity (b.) Minimum capacity (c.) Optimal Capacity
4. Consumers will get the most benefit for their money by choosing a combination of commodities whose marginal substation rate is equal to (a.) the ratio of their prices (b.) the supply of the commodities (c.) the demand of the goods in the market.
5. The law of marginal utility states that additional units of a commodity consumed are worth less and less to a consumer in money terms (a)false (b) true (c) neither true nor false
6. Economists believe that government exist to regulate the economy and provide social welfare to its citizens (a.) true (b) false (c) neither true nor false
7. Adam smith principle of the invisible hand depicts a situation (a)mechanism by which a perfectly competitive economy allocates resources efficiently with guidance from the government. (b)Mechanism by which a perfectly competitive economy allocates resources efficiently without any guidance from the government. (c) Mechanism by which a perfectly competitive economy allocates resources efficiently with and without any guidance from the government.
8. Government finds it appropriate to support activities that will generate external benefits (a)due to market efficiency in general(b)Due to markets ability to cope with externalities (c)Due to markets inability to cope with externalities
9. In the short run, a profit-maximizing perfectly-competitive firm will definitely earn positive economic profits when: (a)$P= MC$ (b) $MR = MC$ (c)$P > ATC$ (d) $P > AVC$. (e) A and B are correct.
10. A profit-maximizing perfectly-competitive firm will break even when: (a)$P = MC$ (b)$MR= MC$ (c) $AVC = ATC$ (d) $P = ATC$.
11. A profit-maximizing perfectly-competitive firm will shut down when: (a). $P < 0$. (b) $P < MC$(c)$P < ATC$ (d)$P < AVC$.
12. One of the following is not a feature of perfect competition a) many buyers and sellers b) non- homogenous product c) Price taker d) P=MR=D e) none of the above
13. If for a perfectly competitive firm, P is 24, and TC is given as $15 + 36Q - 0.5Q^2$, What is the value of MR?

    Use the information below to answer questions (6-10):

    Given that x is a positive integer, state whether the following conditions represents normal, or abnormal profit or a shut-down point.
14. If the price is given as $(x - 1)$ and the AVC is given as $(x + 1)$, then ……………
15. If the price is given as $(x - 1)$ and the AC is given as $(x + 1)$, then, it is a case of ……………
16. If the price is given as (x) and the AC is given as $(x - 2)$, then it is a case of ……………
17. If the price is given as (x) and the AC is given as $(x - 2)$, then it is a case of ……………
18. If the price remains x and Marginal revenue is $(x + 1)$, the firm still exhibit features of perfect competition. (TRUE/ FALSE)

19. Perfect completion and monopolistic competition are one and the same thing. (TRUE/ FALSE)
20. In which of the market structures do we have the possibility of collusion? ....

Section B

QUESTION 1.

(a) Highlight five sources of monopoly power
(b) Illustrate graphically the short run equilibrium profit maximization of a monopolist
(c) Describe briefly the price setting strategy of a monopolist **(15marks)**

QUESTION 2.

(a) With the aid of a well labelled diagram, distinguish between abnormal profit for a monopolistic competitive firm and abnormal profit of a perfectly competitive firm. **(5marks)**
(b) Suppose that a typical monopolistically-competitive firm faces the following demand and total cost equations for its product: $Q = 55 - 2.5P; TC = 216 - 20Q + Q^2$. Where *P* is the price of the product and *Q* is the number of units produced.

SOLUTIONS TO ECN 221 QUESTIONS

1. C
2.
3. C
4.
5. B
6.
7. B
8.
9. C
10.
11. D
12.
13. 24
14.
15. Abnormal profit
16.
17. Bonus Mark
18.
19. False

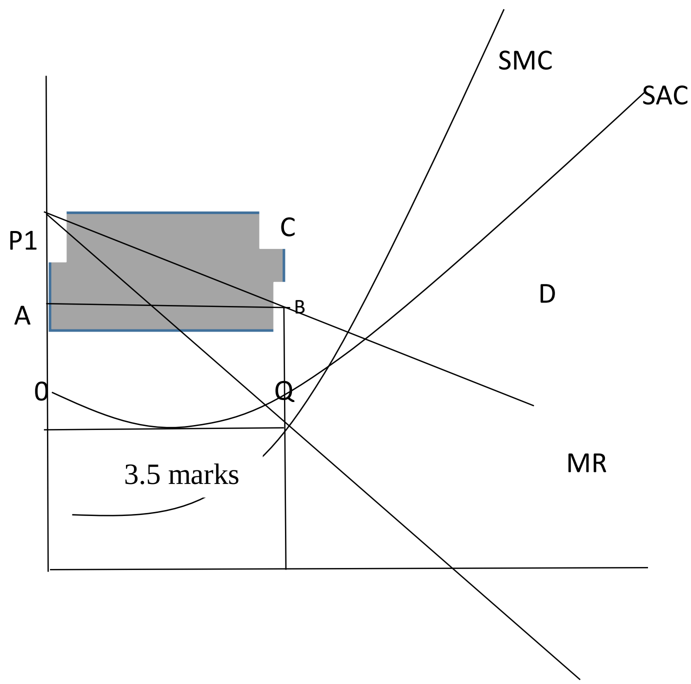
SECTION B

QUESTION 1
<u>QUESTION 1A</u>

i. Natural Monopoly
ii. Efficiency through economics of scale
iii. Research and technological progress
iv. Ownership of essential raw materials
v. Establishes firm advantage
vi. Merger and Acquisition

vii. Franchise and patients (**0.5 mark for each point, total of 2.5 marks**)

QUESTION 1B



Total Revenue (TR) = Area OP_1CQ_1
Total Cost (TC) = Area $OABQ_1$
Profit = Shaded Area P_1ABC

The monopolist attains its profit-maximizing objective by following exactly the same rule as the perfectly competitive firm, that is adjusting its rate of production to the point where MC=MR The difference is that the demand curve facing a monopolist is down-sloping and at every level of output MR is less than the price, hence MR lies below the demand curve.

QUESTION 1 C.
(i) A single price monopolist
(ii) Price discriminating monopolist
(i) A single price monopolist charges uniform prices for product in all markets. It occurs when the same type of commodity is sold to different buyers at the same price.
(ii) Price discriminating monopolist occurs when the same type of commodity or service is sold to different buyers at different prices when the costs of production of the commodities or service are equal.

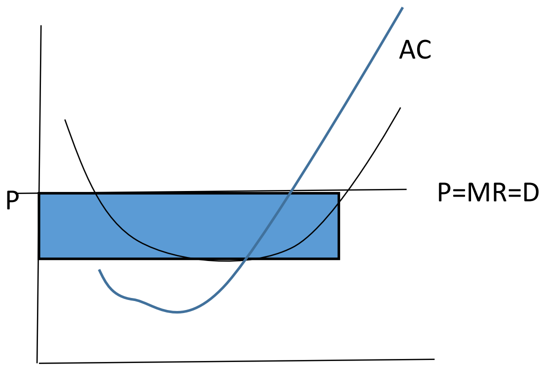
QUESTION 2

QUESTION 2A

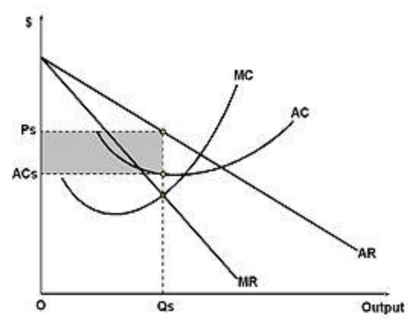
With the aid of a well labelled diagram, distinguish between abnormal profit for a monopolistic competitive firm and abnormal profit of a perfectly competitive firm.

Abnormal profit occurs when the Average cost (AC) of production is just below the Price of the commodity. That is to say with abnormal profit, P is greater than AC. The diagrams below represent the abnormal profit in a perfectly competitive and monopolistic competitive market structures.

Abnormal profit under Perfect competition



Abnormal profit under Monopolistic competition



2 marks

Extra marks for any explanation

<u>Question 2b</u>

Suppose that a typical monopolistically-competitive firm faces the following demand and total cost equations for its product: $Q = 55 - 2.5P; TC = 216 - 20Q + Q^2$. Where *P* is the price of the product and *Q* is the number of units produced.

(i) What is the firm's profit-maximizing price and output level?

(ii) What is the relationship between *P* and *ATC* at the profit maximizing output level? (4marks)

(iii) State whether or not the firm will earn an economic profit

$Q = 55 - 2.5P;$

Making P the subject of the formula

$P = 22 - 0.4Q$

$TR = P * Q$

$TR = [22 - 0.4Q]Q$

$TR = 22Q - 0.4Q2$

$MR = 22 - 0.8Q$
$MC = -20 + 2Q$
$MR = MC$
$22 - 0.8Q = -20 + 2Q$
$22 + 20 = 2Q + 0.8Q$
$42 = 2.8Q$
$Q = 42/2.8$
$Q = 15$
$To\ get\ the\ value\ of\ price, substitute\ p\ into\ the\ price\ equation$
$P = 22 – 0.4\,(15)$
$P = 22 - 6 = 16$

(ii) $ATC = \frac{TC}{Q} = \frac{216 - 20Q + Q^2}{Q} = \frac{216}{Q} - 20 + Q$
$ATC = \frac{216}{15} - 20 + 15 = 9.4$
The relationship between ATC and price is that price is greater than ATC (P > ATC or ATC < P)

(iii) Yes the firm would make economic profit because ATC < Price (9.4 < 16)