INDIAN SCHOOL MUSCAT
FINAL TERM EXAMINATION

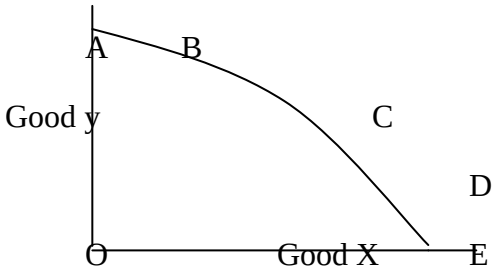
SUBJECT :ECONOMICS

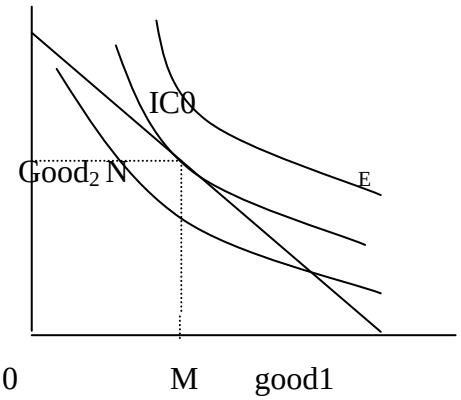
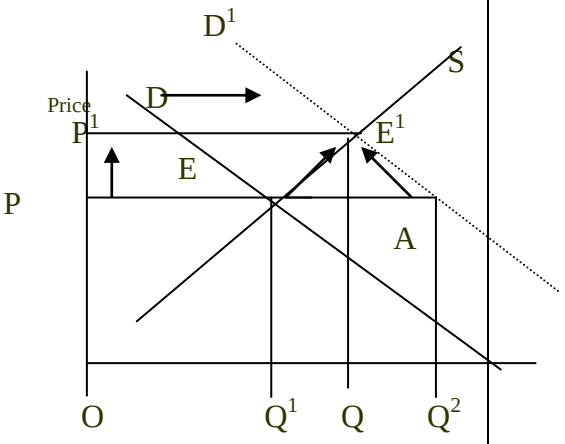
CLASS: XI **Sub. Code:030** **Time Allotted: 3 Hrs.**

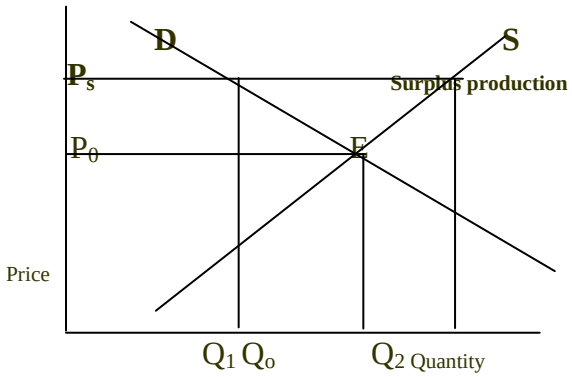
1402.2019 **SET B** **Max. Marks:**

EXPECTED VALUE POINTS AND SCHEME OF EVALUATION

Q.NO.	Answers	Marks (with split up)
1	B. Buy more units of the good to be at equilibrium	1
2	B. Downward sloping and convex to the origin	1
3	AFC diminishes OR AR curve becomes a straight line parallel to X axis	1
4	Quantity of a good that a consumer is willing to buy at a particular price during a given period of time	1
5	In perfectly competitive market, market price is constant and uniform. This gives total revenue curve the following features. a. TR increases as output increases b. TR has a constant slope, TR becomes an upward sloping straight line c. TR is zero at zero output so that it starts from origin OR If existing firms make abnormal profits in the short run, new firms will enter into the market attracted by the abnormal profits. Market supply increases. Price falls and abnormal profits are competed away. If existing firms are making loss, loss making firms can leave the market. Market supply decreases. Market price rises and the remaining firms will get normal profits. This implies that all firms will make only normal profits in the long run.	3
6	Ed=(ΔQ/ΔP) x (P/Q); (x-500) /2 x 10/500; 1=x-500/200; 200=x-500; 200=x-500; **x=700. Ans=700**	3
7	**a. Perfect competition has large number of sellers in the market and their number is too large that a single firm cannot have any influence on market price and quantity. Oligopoly has only a few large firms operating in the market and each firm has a considerable influence on market share. In perfect competition both buyers and sellers have perfect knowledge about the market. Oligopoly firms and buyers in the market do not have any perfect knowledge about the market.** **b. Monopoly has only one firm operating in the market for a good. Monopolistic market has large number of firms operating in the market.** Monopoly produces a unique good which does not have any close substitute. Monopolistic firms produce goods which are close substitutes but not perfect substitutes. (any two points)	4

8	a. Good A is substitute of good B if an increase in price of good B increases the demand for good A. These are used one in place of the other and provide the same satisfaction and can be used with same ease. Demand for a good will shift to right (increase) if price of its substitute rise. E.g. demand for tea and price of coffee. b. Good A is said to be complementary to B if an increase in price of good B decreases the demand for good A. Complementary goods are those goods which are demanded together to satisfy one want. Demand for good will decrease if price of complementary goods increases. E.g. demand for car and price of petrol. With diagram	4
9	**PPC** is a graphical medium of highlighting the central problems of 'what to produce' It shows various combinations of two goods that can be produced with available technologies and with given resources, which are fully efficiently utilized. The curve that gives maximum amount of two goods that can be produced in the economy with given resources and technology is called production possibility frontier. Diagram  At the point A only Good Y is produced no good X. At the point E only good X is produced but no Y. Points B, C, and D, show various combinations of both the goods. Which combination to be produced, depends on the taste and preferences of the society. OR **Marginal Rate of Transformation:-** It is the rate at which quantity of output of one good sacrificed to produce one more unit of the other good. If MRT is increasing in nature, PPC will be concave to the origin If MRT is constant, MRT will be a straight line If MRT is diminishing, PPC will be convex to the origin (Show with diagram)	4
10	A budget set describes the bundles that are available to the consumer. An indifference map shows her preferences over the available budget sets. Higher indifference curve shows higher level of satisfaction. A rational consumer always tries to move to the point on the highest indifference curve possible given her budget set. Budget Line represents all the possible bundles which cost exactly equal to the consumer budget. Optimum point would be located on the budget line. A point below	6

	the budget line cannot be optimum. The point above the budget line is not available with the given income. There could be some point on the budget line, which is preferred by the consumer. This optimum bundle of the consumer is located at the point where the budget line is tangent to the Indifference curve. At this point the absolute value of the slope of the IC (MRS) and that of the budget line (Price Ratio) are the same. MRS=Price ratio. Or $\Delta X_2/\Delta X_1 = -P_1/P_2$ IC_1 IC_2 'AB' is the budget line. At the point 'E' Budget line touches the highest possible IC Consumer buys ON units of $good_2$ and OM units of good. And OM units of good1  	
11	Tea and coffee are substitute goods.When market price of coffee rises demand for tea will increase. Consumers will shift from coffee to tea. Demand curve shifts to right. When demand shift top right equilibrium price increases and equilibrium quantity will increase. The direction of change in equilibrium price and quantity is same whenever there is a shift in demand curve. When demand shifts to right from DD to D^1D^1 the quantity demanded is more than the quantity supplied equal to 'EA' or (QQ^2) at OP price. Excess demand is created. Consumers are willing to pay a higher price. This pushes up the price to P1 A new equilibrium point is reached at E1. Equilibrium price increases to P^1 and equilibrium quantity to Q^2.  OR It is the minimum price fixed by the government above the market price on certain good is called price floor. Government fixes the minimum price in order to prevent the price falling from certain level so that the producers are assured of reasonable returns. This is also called price support programme.	6



P_o is equilibrium price at which demand=supply. If this price is too low for the producers so that they incur loss, government fixes a price floor or support price P_s. It has the following consequences.

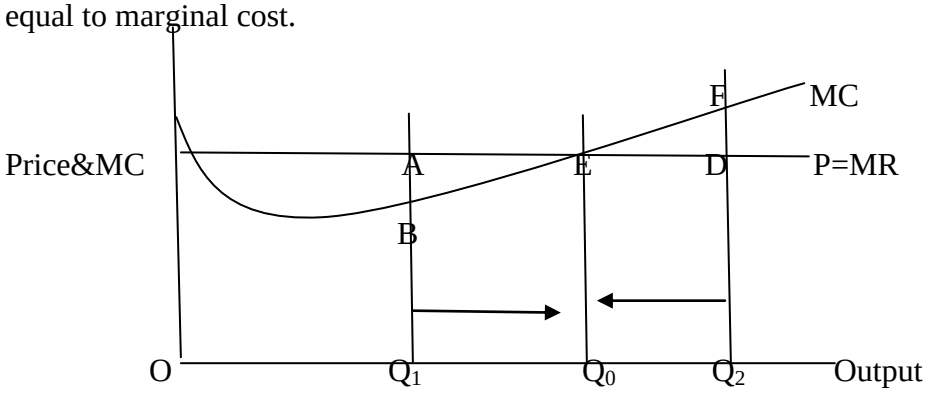
a. *Surplus production:-* At a higher price producers produce more but demand falls. This creates a surplus production equal to Q_1Q_2.
b. *Buffer Stock*:- In order to keep the support price government has to procure this surplus at the floor price. This lead to creation of buffer stock
c. *Problem of subsidies:-* Government buys the goods at the support price and sells at a lower price in the market. This price difference becomes subsidies. Government has to incur this cost of subsidies.

12 | In perfect competition Market Price is constant so that it is equal to Marginal revenue. | 6

Market price becomes addition to total revenue from an additional unit of output produced.

If Market price is more than the marginal cost, addition to total revenue is more the addition to total cost when firm increases the output. Firms can increase profits by increasing output. Firm cannot be at equilibrium because it wants to increase the output.

If market price is less than the marginal cost, addition to total cost is more than the addition to total revenue by increasing the output. Profit falls by increasing the output. On the other hand if the firm reduces the output, decrease in total cost is more than the decrease in revenue. Firm can increase the profits by reducing the output Firm cannot be at equilibrium because it wants to reduce the output.
This means that firm can make maximum profit when market price is equal to marginal cost and firm is at equilibrium when it produces a level of output when market price is equal to marginal cost.



<table>
<tr><td></td><td>At Q_1 output MP is more than the MC. Firm increases Output. By increasing the output to Q_0, firm's gross profit will increase by an area ABE.
At Q_2 level of output MC is more than MP. Firm will reduce the level of output. By reducing the output, firm can increase the profit by reducing the output by an area EDF.
At output Q_0 MC=MP, firm gets maximum profits and is at equilibrium.</td><td></td></tr>
<tr><td></td><td>PART B STATISTICS</td><td></td></tr>
<tr><td>13</td><td>Perfect negative correlation.</td><td>1</td></tr>
<tr><td>14</td><td>Discrete series: It can take only certain values than change only by finite jumps
Continuous series: Series capable of manifesting every conceivable value and its value can also be broken into infinite gradations
OR
Chronological classification: classification of data according to time
Spatial classification: Data classified according to Geographical location</td><td>1</td></tr>
<tr><td>15</td><td>D. The class mid points</td><td>1</td></tr>
<tr><td>16</td><td>Largest value minus smallest value divided by largest value plus smallest value of a distribution</td><td></td></tr>
<tr><td>17</td><td>Production
Consumption and
Distribution (with meaning)</td><td>3</td></tr>
<tr><td>18</td><td>Classes: 0-10 10-20 20-30 30-40 40-50 50-60
Frequencies: 4 6 20 10 7 3
X 5 15 25 35 45 55
Fx 20 90 500 350 315 165 / 1440

$\bar{X} = \sum Fx/\sum F = 1440/50 = 28.8$
OR
Calculate Lower Quartile, Middle Quartile and Upper Quartile for the following distribution.

<table><tr><td>Marks</td><td>5</td><td>10</td><td>15</td><td>20</td><td>25</td><td>30</td><td>35</td><td>40</td></tr><tr><td>Number of students</td><td>4</td><td>6</td><td>10</td><td>15</td><td>10</td><td>7</td><td>5</td><td>2</td></tr><tr><td>Cf</td><td>4</td><td>10</td><td>20</td><td>35</td><td>45</td><td>52</td><td>57</td><td>59</td></tr></table>
Q1= (N+1)/4th item; 59+1/4; 60/4=15th item. Q1=15
Q2= 2(N+1)/4th item; 30th item. Q2 = 20
Q3= 3(N+1)/4 th item; 45th item. Q3 = 25</td><td>3</td></tr>
<tr><td>19</td><td>Sampling error: the difference between actual value of parameter of the population and its estimate
Non-sampling error: All errors other than sampling error. More serious because it is difficult to minimize non sampling error whereas sampling error can be minimized by taking larger number of samples.
a. Errors in data acquisition
b. Non response errors
Sampling bias (with meaning)
OR</td><td>4</td></tr>
</table>

Essential characteristics of a good questionnaire:

a. A questionnaire should not be too long.
b. Series of questions should move from general to specific
c. The questions should be precise and clear
d. Questions should not be ambiguous to enable the respondents to answer quickly
e. Questions should not use double negative
f. Questions should not be a leading question
g. Questions should not indicate alternative to answer. (any four points)

20 — 4

Sectors	Expenditure (Rs.crores)	%	Degree
Agriculture	5600	28	100.8
Animal Husbandry	5000	25	90
Fisheries	2800	14	50.4
Forestry and Logging	2400	12	43.2
Mining and Logging	4200	21	75.6
Total	20000	100	360

Diagram with title, shading and key

21 — 4

Intelligent Quotient X	30	24	60	70	40
Arithmetic Ability Y	50	41	64	65	36
Rx	4	5	2	1	3
Ry	3	4	2	1	5
D	1	1	0	0	-2
D^2	1	1	0	0	4

$\sum D^2 = 6$; $R = 1 - (6.\sum D^2/N(N^2-1))$

$1 - 6x6/5(5^2-1)$; 1- 36/120; 1-0.3; **= 0.7**

22 — 6

Classes	0-4	4-8	8-12	12-16	**16-20**	20-24	24-28	28-32	32-38	38-42
frequencies	3	8	14	30	**40**	28	14	8	3	2

Mode= l + (fm-f1/2fm-f1-f2) x c
Model class is 16-20
16 + (40-30/2x40-30-28) x 4
Mode = 16 + 1.82 = 17.82. Mode=**18apx**. On graph

23

Size	4	6	**8**	10	12	14	16	20
Frequencies	2	4	5	3	2	1	2	1
cf	2	6	11	14	16	17	19	20
/d/	4	2	0	2	4	6	8	12
f/d/	8	8	0	6	8	6	16	12

Median = (N+1)/2th item; 20+1/2=10.5th item. Median = 8
$\sum$ f/d/=64
MD=$\sum$ f/d//$\sum$ f
64/20 = 3.2. coefficient of Md = MD/Median; 3.2/8 =0.4

OR

Classes	5 – 15	15 - 25	25 - 35	35 – 45	45 - 55
Frequencies	8	13	15	9	6 $\sum$F =50
X	10	20	30	40	50
Fx	80	260	450	360	300=1450
D	-19	-9	1	11	21
D2	361	81	1	121	441
Fd2	2888	1053	15	1089	2646 $\sum$Fd2=7991

SD = $\sqrt{\sum Fd2/\sum F}$; $\sqrt{7991/50}$ = $\sqrt{159.82}$ = 12.64
Mean = $\sum FX/\sum F$; 1450/50 = 29
Coefficient of SD = 12.64/29 = 0.44

24 — 6

Commodities	2005		2010					
	P_0	Q_0	P_1	Q_1	P_0q_0	P_1q_0	P_0q_1	P_1q_1
A	100	7	150	4	700	1050	400	600
B	75	6	100	8	450	600	600	800
C	90	11	90	10	990	990	900	900
D	60	5	40	6	300	200	360	240
					2440	2840	2260	2540

a. P_{01} = $(\sum p_0q_0/\sum p_1q_1) \times 100$; =(2440/2840) x 100; =116.39
b. $P_{01} = (\sum p_1q_1/\sum p_0q_1) \times 100$; = (2540/2260) x 100; = 112.39

END OF PAPER