

Class: XI

Date: 6/11/2025

Admission No:

MARKING KEY

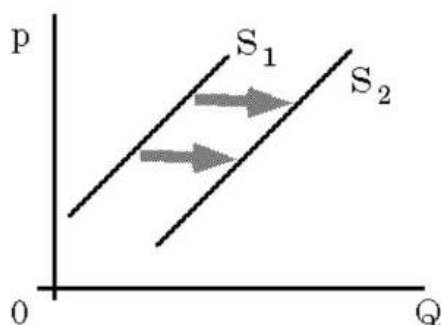
Duration: 1Hr

Max. Marks: 25

Exam No.

Instructions: All questions are compulsory.

1. a) Zero 1)
2. b) Median 1)
3. b) Both the statements are false. 1)
4. b) Change in quantity supplied 1)
5. c) 2.5 1)
6. When technological progress on the production of good, Marginal and Average cost of the production tends to fall, Accordingly, producers will supply at the same price or same supply at the lower price. This implies a forward or rightward shift supply curve. 3)



The supply curve shifts to the right from S_1 to S_2 .

$$7. \bar{X} = A + \frac{\sum fm}{\sum f} \times C \quad 3)$$

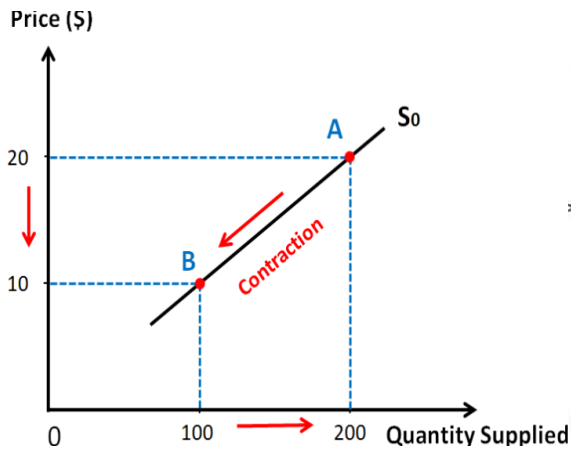
$$\bar{X} = 44.5 + \frac{-6}{40} \times 10 = 44.5 - 1.5 = 43.0$$

= 43 Answer

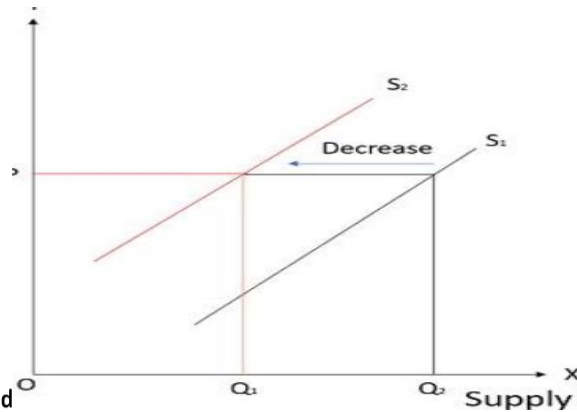
8. - (i) Fall in the price of a good – X leads to downward movement along the supply curve, other things remaining constant as diagram: 4)

(ii) With rise in tax rate on Good – X, marginal and average costs the production tend to rise, Other things remaining constant, it causes a cut in profit. Accordingly, only at a higher price. This implies a backward or leftward shift in supply curve or decreases in supply Diagram:-

(i)



(ii)



9. Middle item is $\left[\frac{125}{2} \right]^{th}$ or 62.5th item which lies in the group 30-40

4)

$$\begin{aligned} \text{Median} &= l_1 + \frac{\frac{N-c.f}{f}}{2} \times i \\ &= 30 + \frac{22.5 \times 10}{36} \\ &= 30 + 6.25 = 36.25 \\ \text{Median} &= 36.25 \text{ Answer} \end{aligned}$$

$$\begin{aligned} 10. (a) \bar{X} &= \frac{\sum fm}{\sum f} \\ &= \frac{1345 + 15f_1}{43 + f_1} \\ &= 1247 + 29f_1 = 1345 + 15f_1 \\ &= 29f_1 - 15f_1 = 1345 - 1247 \\ 14f_1 &= 98 \\ f_1 &= 7 \end{aligned}$$

4)

Missing frequency = 7 Answer

$$\begin{aligned} 10. (b) \bar{X} &= \frac{\sum X}{N} \text{ Given } \bar{x} = 35, N = 70 \\ \sum X &= 70 \times 35 = 2450 \end{aligned}$$

2)

$$\begin{aligned} \text{Corrected } \sum X &= 2450 - \text{Incorrect item} + \text{Correct item} \\ \text{Corrected } \sum X &= 2450 - 50 - 43 + 45 + 34 = 2432 \\ \text{Corrected mean} &= \frac{\sum X}{N} = \frac{2432}{70} = 34.74 \\ &= 34.74 = \text{Answer} \end{aligned}$$

*****ALL THE BEST*****