

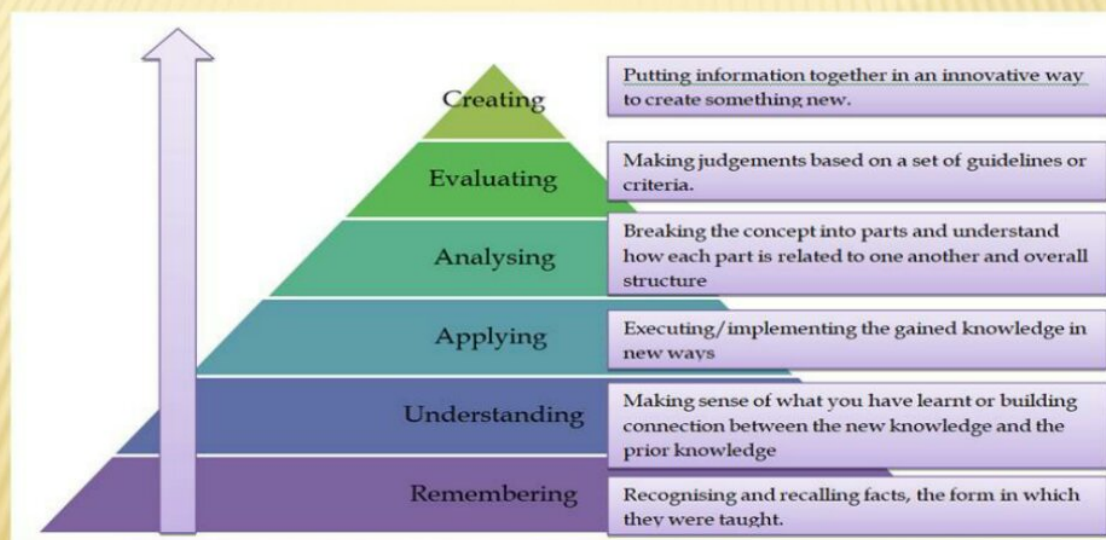
ORIGINAL TERMS

- ✗ Evaluation
- ✗ Synthesis
- ✗ Analysis
- ✗ Application
- ✗ Comprehension
- ✗ Knowledge

NEW TERMS

- Creating
- Evaluating
- Analysing
- Applying
- Understanding
- Remembering

(Based on Pohl, 2000, *Learning to Think, Thinking to Learn*, p. 8)



Important portion of CBSE Class 11 Economic Syllabus 2019-20 is given below:

[Theory: 80 Marks & Project: 20 Marks]

Units		Marks	Periods
Part A	Statistics for Economics		
	Introduction	13	07
	Collection, Organisation and Presentation of Data		27
	Statistical Tools and Interpretation	27	66
		40	100
Part B	Introductory Microeconomics		
	Introduction	4	8
	Consumer's Equilibrium and Demand	13	32
	Producer Behaviour and Supply	13	32
	Forms of Market and Price Determination under perfect competition with simple applications	10	28
		40	100
Part C	Project Work	20	20

Introductory Microeconomics

Introduction of Micro Economics and Demand and Elasticity of Demand

Multiple Choice Questions

Remembering

1. The economy in which Central authority plans all the important activities can be termed as:

- | | |
|----------------------|----------------|
| (a) Capitalist | (b) mixed |
| (c) Socialist | (d) developing |

2. Study of the industry is a part of:

- | | |
|---------------------------|--------------------|
| (a) Microeconomics | (b) macroeconomics |
| (c) Both A and B | (d) Welfare |

3. Positive economic analysis is concerned with:

- | | |
|------------------------------|--------------------|
| (a) Facts and figures | (b) opinions |
| (c) Ideals | (d) value judgment |

4. MOC_{xy} is equal to:

- | | |
|----------------------------------|---------------------------|
| (a) Price ratio | (b) output ratio |
| (c) Loss of Y / gain of x | (d) gain of X / loss of y |

5. Expansion of demand is due to:

- (a) rise in price of commodity concerned
- (b) increase in income
- (c) **fall in price of commodity concerned**
- (d) favorable change in taste

6. Perfectly elastic demand is straight line:

- (a) **Parallel to x axis** (b) parallel to y axis
(c) upward sloping (d) downward sloping

7. Other things being equal if price of substitute goods increases, demand for concerned good:

- (a) **increases** (b) no change
(c) decreases (d) expand

Understanding:

8. The demand curve is a curve which shows relationship between:

- (a) **price and quantity demanded**
(b) quantity demanded and price
(c) income and quantity demanded
(d) price of related good and quantity demanded

9. If the price of good X will increase and quantity demanded of good Y decreases then these goods are:

- (a) inferior goods (b) **complementary goods**
(c) normal goods (d) substitute goods

10. Demand curve shifts when :

- (a) price of own good change (b) price of related good
(c) consumer income change (d) **both B and C**

11. PPC is downward sloping straight line when:

- (a) MRT increases (b) MRT decreases
(c) **MRT remains constant** (d) MRT is zero

12. PPC shift rightwards due to:

- | | |
|-------------------------------|--------------------------------------|
| (a) technological degradation | (b) technological upgradation |
| (c) natural calamity | (d) no change in technology |

13. In case of air conditioner, demand is:

- | | |
|--------------------|-----------------------|
| (a) inelastic | (b) unitary elastic |
| (c) elastic | (d) perfectly elastic |

14. How to produce problem is a problem of:

- | | |
|--|-------------------------------------|
| (a) selection of different types of goods | (b) distribution of national output |
| (c) selection of production technique | (d) growth of resources |

Applying & Evaluating:

15. Inferior goods are those goods whose:

- (a) Income effect is negative
- (b) **income effect is negative and price effects is positive**
- (c) Income effect is positive
- (d) income effect and price effect is positive.

16. If two demand curve intersect with each other which demand curve will be having more elasticity

- | | |
|-------------------------------------|--------------------------------------|
| (a) curve with flatter slope | (b) curve with rectangular hyperbola |
| (c) curve with steeper slope | (d) both (b) and (C) |

17. The rectangular curve for ice cream and summer is likely to shift right word because

- (a) rise in price of ice cream
- (b) fall in price of ice cream
- (c) fall in price of cold drink
- (d) **favorable taste and preference**

18. In an economy, where 1000 people demand for uniballair pen, it can be termed as

- (a) individual demand
- (b) aggregate demand
- (c) **market demand**
- (d) deficient demand

19. Fit India Movement will cause PPC

- (a) **rightward shift**
- (b) leftward shift
- (c) forward rotation on x axis
- (d) no change in PPC

20. What will be the elasticity of demand for 'India Gate basmati rice is':

- (a) **elastic**
- (b) unitary elastic
- (c) inelastic
- (d) perfectly elastic

21. The main elements of demand are:

- (a) Desire and want it
- (b) Desire and quantity
- (c) desire and price
- (d) **quantity, price and time.**

Analysing:

22. If close substitute are available in demand for the good is

- (a) **elastic**
- (b) inelastic
- (c) unitary elastic
- (d) perfectly elastic

23. Point out the odd one

- (a) necessities

- (b) goods on which % expenditure incurred is low
- (c) **goods for which substitute are available**
- (d) goods required in emergency

24. Decrease in demand is due to _____ :

- (a) rise in price of good
- (b) fall in price of good
- (c) favourable change in taste and preference
- (d) **unfavourable change in taste and preference**

25. MrSiddharth has three options to choose from for employment options (I) 80,000 (II) 70,000 (iii) 60,000. Opportunity cost for choosing option-working conditions is same.

- | | |
|----------------|-----------------------|
| (a) Rs. 80,000 | (b) Rs. 70,000 |
| (c) Rs. 60,000 | (d) Rs. 10,000 |

True & False

- | | |
|---|---------|
| 1. Unemployment problem is a part of microeconomics study. | [] [F] |
| 2. An economy always operates on PPC curve. | [] [F] |
| 3. An indifference curve is always a downward sloping curve. | [] [F] |
| 4. Budget line is an upward sloping straight line. | [T] [] |
| 5. Slope of budget line is equal to price ratio. | [T] [] |
| 6. There is an inverse relationship between quantity demanded and price of the commodity concerned. | [] [F] |
| 7. There is a direct relationship between price of a good and quantity demanded | |

- of its substitute good. [T] []
8. Demand for habituated good is inelastic. [T] []
9. In a free market economy economic problems are solved by price mechanism. [T] []
10. Scarcity is the root cause of all economic problems. [T] []
11. "For whom to produce" problem is a problem of selection of production technique. [] [F]
12. Market demand is obtained by taking the sum total of all individual demand. [T] []
13. Scarcity of resources gives rise to the problem of choice. [T] []
14. How to produce is the problem of the choice of distribution. [] [F]
15. PPC is concave to origin due to increase in MRT. [T] []
16. When price of goods increases then demand of the good decreases. [T] []
17. General Price level is the subject matter of macroeconomics. [T] []
18. Alternative use of resources leads to problem of choice. [T] []
20. Positive economics refers to opinions given by The Economist. [] [F]
21. - 5, - 7 - 8, 0 is the correct order of increasing price elasticity of demand. [] [F]
22. Increase in Employment opportunity results in rightward shift of PPC. [T] []
23. Demand curve is rectangular hyperbola when $E_d = 1$. [T] []
24. Laptop and desktop are substitute goods. [T] []
25. Demand of normal goods has positive relationship with price. [] [F]
26. Slope of demand is equal to the change in price divided by the change in demand. [T] []
27. Perfectly inelastic demand curve is a straight line parallel to x axis. [T] []
28. Marginal opportunity cost refers to change in gain of one opportunity to change in loss of another commodity. [] [F]
29. If there is equal distribution of income in an economy the quantity demanded will decrease. [] [F]

Match the following

Remembering

1. Match the following of change in demand with its effect:-

(i)	Increase in price of substitute goods	(a)	Increase in demand
(ii)	Increase in price of complimentary good	(b)	Decrease in demand
		(c)	Contraction of demand
		(d)	Expansion of Demand

Ans. (i)-A (ii)-B

2. Match the following of concept of demand with suitable answer:-

(i)	Demand is	(a)	Willingness & ability
(ii)	Demand function is	(b)	Goods in market
		(c)	Factors affecting demand
		(d)	Need of consumer

Ans. (i)-A (ii)-C

3. Match the following of concept of demand with suitable answer:-

(i)	Demand is a flow concept	(a)	Demand function
(ii)	Future price expectation	(b)	Assumption of demand
		(c)	Factor of demand
		(d)	Feature of demand

Ans. (i)-D (ii)- C

4. Match the following concept of demand with suitable answer:-

(i)	Assumption of law of demand	(a)	Ceteris paribus
(ii)	Factors affecting market demand	(b)	No. Of consumers in market
		(c)	Price remains constant
		(d)	Fixed resources

Ans. (i)-A (ii)-B

5. Match the options of Group-A with Group-B:-

GROUP-A

GROUP-B

(i)	Demand is perfectly elastic	(a)	At a given price less is demanded
(ii)	Demand is perfectly inelastic	(b)	Ratio of change in demand is less than the ratio of change in price
		(c)	Whatever the price, demand remains same
		(d)	At a given price demand is infinity

Ans. (i)-D (ii)-C

6. Match the names of propounder with their subject:-

(i)	Main propounder of Micro economics	(a)	Adam Smith
(ii)	Main propounder of Macro economics	(b)	J.M.Keynes
		(c)	J.B.Say
		(d)	Lord Robbins

Ans. (i)-C (ii)-B

Understanding

7. Match the following group:-

(i)	What ever the price may be demand remains same	(a)	Perfectly elastic
(ii)	A slight rise in price will make the demand zero	(b)	Perfectly inelastic
		(c)	Highly Elastic
		(d)	Less Elastic

Ans. (i)-b (ii)-a

8. Match the column (A) and (B) related to introduction of Economics.

(i)	Opportunity cost	(a)	Individual study
(ii)	All points inside PPF	(b)	Study of prize
		(c)	Next best alternative forgone
		(d)	Attainable

Ans. (i)-c (ii)-d

9. Match the column (A) with (b) related to introduction of economics

(i)	Concave PPF	(a)	Aggregate study
(ii)	Convex PPF	(b)	Increasing MRT
(c)		(c)	Constant MOC
(d)		(d)	Decreasing MRT

Ans. (i)-b (ii)-d

10. Match the column (A) with (B) related to introduction of PPC

(i)	Point outside PPF	(a)	Excess demand
(ii)	Shift in PPC	(b)	Unattainable combination
		(c)	Upgradation of technology
		(d)	Increase in resources

Ans. (i)-b (ii)-c&d

11. Match the column (A) with (B) related to introduction of economics

(a)	Micro economics	(a)	Positive science
(b)	Macro economics	(b)	Normative science
(c)		(c)	Price theory
(d)		(d)	Income and employment theory

Ans. (i)-c (ii)-d

12. Match the column (A) with (B) related to introduction of economics

(i)	PPF	(a)	Central problem of economy
(ii)	What to produce	(b)	Transformation frontier
		(c)	Rotation curve
		(d)	Where to produce

Ans. (i)-b (ii)-a

13. Match the column (A) with (B) related to introduction of economics

(i)	Scarcity	(a)	Social science
(ii)	Economic problem	(b)	Excess of demand than supply
(c)		(c)	Problem of choice
(d)		(d)	Optimum use of resources

Ans. (i)-b (ii)-c

14. Match the following of quantity demand with its effect:-

(i)	Contraction of demand	(a)	Leftward shift
(ii)	Increase in demand	(b)	Rightward shift
		(c)	Upward movement

		(d)	Downward movement
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Ans. (i)-C (ii)-B

15. Match the following of factors of demand with its effect:-

(i)	Favourable taste & preference	(a)	Increase in demand
(ii)	Increase in price of commodity	(b)	Decrease in demand
		(c)	Contraction of demand
		(d)	Expansion of demand

Ans. (i)-A (ii)-C

16. Match the following factors of demand with its effect:-

(i)	Increase in future expected price	(a)	Increase in demand
(ii)	Increase in price of goods	(b)	Increase in quantity demanded
		(c)	Decrease in demand demand
		(d)	Decrease in Quantity demanded

Ans. (i)-A (ii)-D

17. Match the options of Group-A with Group-B:-

GROUP-A

GROUP-B

(i)	When $E_d > 1$	(a)	% change in demand > %change in price
(ii)	When $E_d < 1$	(b)	% change in price > %change in demand
		(c)	% change in price = %change in demand

Ans. (i)-A (ii)-B

18. Match the options of Group-A with Group-B:-

GROUP-A

GROUP-B

(i)	With decrease in price, demand increases	(a)	Increase in demand
(ii)	With constant price demand falls	(b)	Contraction of demand
(c)		(c)	Decrease in demand
(d)		(d)	Extension of demand

Ans. (i)-D (ii)-C

19. Match the options of Group-A with Group-B:-

GROUP-A

GROUP-B

(i)	Change in price is 3%, change in demand is 6%	(a)	$E_d = 0.2$
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(ii)	Change in price is 12%, change in demand is 6%	(b)	$E_d=2$
		(c)	$E_d=0.5$
		(d)	$E_d=5$

Ans. (i)-B (ii)-C

20. Match the options of Group-A with Group-B:-

GROUP-A

GROUP-B

(i)	$E_d=\infty$	(a)	Demand curve is 45°
(ii)	$E_d=0$	(b)	Demand curve is vertical
		(c)	Demand curve is horizontal
		(d)	Demand curve is positive

Ans. (i)-B (ii)-C

21. Match the options of Group-A with Group-B:-

GROUP-A

GROUP-B

(i)	Perfectly elastic demand	(a)	If quantity demanded remains same and price changes
(ii)	Perfectly inelastic demand	(b)	If change in quantity demanded is more than the change in price
		(c)	If quantity demanded changes and price remains constant
		(d)	Demand curve is positive

Applying

22. Match the degree of elasticity with the type of goods:-

(i)	Perfectly elastic	(a)	Salt
(ii)	Inelastic	(b)	Lipstick
		(c)	A.C.
		(d)	Gold

Ans. (i)-D (ii)-A

23. Match the factors affecting elasticity with the degrees of elasticity:-

(i)	If more number of substitutes are available	(a)	$E_d = \infty$
(ii)	If it is possible to postpone the consumption	(b)	$E_d = 0$
		(c)	E_d is highly elastic
		(d)	Demand is less elastic

Ans. (i)-C (ii)-D

24. Match the options of Group-A with Group-B:-

GROUP-A

GROUP-B

(i)	Change in price 20% and $E_d = 1.5$	(a)	Change in demand will be 50%
(ii)	Change in price 15% when $E_d = 12$	(b)	Change in demand will be 10%
		(c)	Change in demand will be 30%
		(d)	Change in demand will be 5%

Ans. (i)-B (ii)-C

25. Match the followings:-

(1)	With increase in population	(a)	Demand falls
(2)	With further expectation of fall in price	(b)	Demand rises
		(c)	Demand is constant
		(d)	Supply will be constant

Ans. (i)-b, (ii)-a

26. Match the following group:-

(i)	What ever the price may be demand remains same	(a)	Perfectly elastic
(ii)	A slight rise in price will make the demand zero	(b)	Perfectly inelastic
		(c)	Highly Elastic
		(d)	Less Elastic

Ans. (i)-b (ii)-a

27. Match the column (A) and (B) related to introduction of Economics.

(i)	Opportunity cost	(a)	Individual study
(ii)	All points inside PPF	(b)	Study of prize
		(c)	Next best alternative forgone

		(d)	Attainable
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Ans. (i)-c (ii)-d

28. Match the coloum (A) with (b) related to introduction of economics

(i)	Concave PPF	(a)	Aggregate study
(ii)	Convex PPF	(b)	Increasing MRT
(c)		(c)	Constant MOC
(d)		(d)	Decreasing MRT

Ans. (i)-b (ii)-d

29. Match the coloum (A) with (B) related to introduction of PPC

(i)	Point outside PPF	(a)	Excess demand
(ii)	Shift in PPC	(b)	Unattainable combination
		(c)	Upgradation of technology
		(d)	Increase in resources

Ans. (i)-b (ii)-c&d

30. Match the coloum (A) with (B) related to introduction of economics

(a)	Micro ecocomics	(a)	Positive science
(b)	Macro economics	(b)	Normative science
(c)		(c)	Price theory
(d)		(d)	Income and employment theory

Ans. (i)-c (ii)-d

31. Match the column (A) with (B) related to introduction of economics

(i)	PPF	(a)	Central problem of economy
(ii)	What to produce	(b)	Transformation frontier
		(c)	Rotation curve
		(d)	Where to produce

Ans. (i)-b (ii)-a

32. Match the column (A) with (B) related to introduction of economics

(i)	Scarcity	(a)	Social science
(ii)	Economic problem	(b)	Excess of demand than supply
(c)		(c)	Problem of choice
(d)		(d)	Optimum use of resources

Ans. (i)-b (ii)-c

Fill in the blanks

Remembering

- statement is based upon facts and not suggestive in nature. (Positive)
- Point inside PPC represents of resources. (under utilisation)
- Shift in PPC happens due to increase in (resources)
- is the slope of PPC. (MoC)
- Increase in price causes of demand. (contraction)
- of demand is caused by fall in price of the commodity. (expansion)
- If percentage change in the quantity demanded is to percentage change in price of the commodity than $E_d=1$. (equal)
- In case of necessary commodities the demand curve is (perfectly inelastic)
- Slope of PPC shows MoC. (decreasing)
- The shape of demand curve is when $E_d=1$. (rectangular hyperbola)

Understanding

- economics is based upon individual's opinion and is suggestive in nature. (Normative)
- Every economy has resources which can be alternatively used to produce different goods & services. (limited/scarcie)
- is a quantity of a commodity which a consumer wishes to purchase at a given price and during specified period of time.
- When price of substitute good increases demand for the commodity (increases)

5. When price of complimentary good decreases demand for the commodity (increases)
6. If due to fall in the price of Good-X demand for Good-Y rises, the two goods are (complimentary)
7. In case of normal good income and demand have relationship. (direct/positive)
8. If the taste of the consumer is unfavourable the demand curve shifts (leftward/backward)
10. In case of long period the demand curve is (elastic)
11. If the distribution of income is equal, the demand curve shifts (rightward/forward)
12. If the population increases then the demand curve shifts (Rightward)
13. Products with demand will have relatively high prices. (inelastic)

Applying

14. In case of Giffen goods demand curve will be (upward sloping to right)
15. With the favourable change in fashion demand curve shifts to its (rightward/forward)
16. In case of Giffen good the demand curve issloped. (positively)
17. the curve, greater the elasticity. (flatter)

Analysis

18. If change in price is 20% and demand increases from 900 to 1080 the E_d will be (1)

Cardinal and Ordinal Analysis
M C Q

Remembering

1. $\sum MU_x$ is equals to:-
(a) **TU_x** (b) AU_x
(c) TU_x/N (d) ΔTU_x
2. In Cardinal approach in case of single commodity equilibrium can be achieved when:- **Remembering**
(a) $P_x > MU_x$ (b) **$P_x = MU_x$**
(c) $P_x < MU_x$ (d) $P_x \neq MU_x$
3. Indifference map refers to:-
(a) Highest IC (b) Lowest IC
(c) **family of IC** (d) none of these
4. In case of ordinal utility approach, utility is measured terms of:-
(a) Rupees (b) Ranks
(c) **Utils** (d) Dollars
5. Measurement unit for utility is:
(a) Kilograms (b) Kilometers
(c) Litres (d) **Utils**
6. Which of the following is the assumption of IC?
(a) income of the consumer remain constant (b) monotonic preferences
(c) price of commodities/ goods remain constant (d) resources remain constant
7. MU_x :-
(a) is always positive (b) can be positive or negative but not zero
(c) is always negative (d) can be positive negative of zero

Understanding

8. If income and price of Good-X and Y increases in the same ratio, the budget line will:-
(a) shift to right (b) shift to left
(c) **remain unchanged** (d) becomes zero
9. When TU_x is increasing MU_x is:-
(a) Negative (b) **Positive**
(c) Zero (d) Constant

10. Convex preferences are identified by:-

(a) Indifference set (c) Indifference Map	(b) Budget set (d) Budget line
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11. The shape of indifference curve when MRS xy is falling, will be:-

(a) concave (c) vertical straight line	(b) convex (d) horizontal straight line
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12. Satiety point means:-

(a) $MU_x > 0$ (c) $MU_x = 0$	(b) $MU_x < 0$ (d) $MU_x \neq 0$
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13. If consumer is consuming X_1 and Y_1 at present, what will be the right pattern of consumption in order to reach the point of equilibrium:- (See diagram in hard copy)

(a) more of X and less of Y (c) less of X and less of Y	(b) less of Y and more of X (d) more of X and more of Y
--	---
14. A consumer spends his entire income on consumption of two goods (X & Y). If price of Good-X rises, slope of budget line will :-

(a) Fall (c) Remain constant	(b) Rise (d) none of these
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15. Which Indifference curve will give maximum satisfaction level?

(a) IC_1 . (c) IC_2	(b) IC_3 (d) IC_4
----------------------------	--
16. After satiety point on consumption of additional units of the commodity will cause:

(a) TU to fall (c) Tu to increase	(b) TU to become negative (d) Increase in both TU and MU
---	---
17. What does the condition of consumer's equilibrium in case of two commodities will be?

(a) $MU_x/P_x > MU_y/P_y$ (c) $MU_x/P_x < MU_y/P_y$	(b) $MU_x/P_x = MU_y/P_y$ (d) $MU_y/P_x = MU_y/P_y$
--	--
18. Which law states that "when a consumer consumes more and more units of a product, the utility derived from each additional unit decreases."

(a) Law of equi marginal utility (c) law of cardinal utility	(b) Law of ordinal utility (d) law of diminishing MU
---	---
19. Rationale consumer means:-

(a) A psycho (c) A sound minded	(b) An addicted (d) A physio
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20. Slope of IC is:-

(a) Budget line (c) MRT	(b) MRS (d) MOC
----------------------------	--------------------
21. Two IC's never intersect because:-

(a) Every IC shows different level of satisfaction	(b) IC's do not attract each other
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(c) IC's move in opposite directions

(d) none of the above

Applying

22. The consumer is in equilibrium, suppose that MU of a rupee increases. How will it affect the quantity demanded of the product?
- (a) It will increase (b) It will remain unchanged
(c) It will increase (d) It will fall to zero
23. Consumer in search of monotonic preference will select which of the following combination of X and Y goods:-
- (a) (2,2) (b) (2,3)
(c) (9,10) (d) (10,10)
24. The slope of consumer's budget line is:-
- (a) Positive and constant (b) negative and decreasing
(c) **negative and constant** (d) positive and increasing
25. If the TU from one unit of commodity is 40 utils and second unit of the commodity gives 60 utils. What will be MU?
- (a) 40 (b) 60
(c) **20** (d) 100
26. When $MU_x/P_x > MU_M$ rational consumer in order to reach equilibrium will:-
- (a) **consume more of X** (b) consume more of Y
(c) consume more of X & Y both (d) reduce consumption of X

27. If the Marginal rate of substitution (MRS_{xy}) is increasing the Indifference curve will be :
- (a) Downward sloping convex to the origin (b) Downward sloping straight line
(c) Downward sloping concave to the origin (d) Upward sloping convex
28. Total Utility of a commodity is equals to the following area: (Diagram referred in hardcopy)
- (a) (b)
 (c) (d)

CBSE WORKSHOP

Name of the Topic: Cardinal & Ordinal Analysis Date: 30th Aug 2019

Teachers:

1. Smita Joshi
2. Kunal Kothari
3. Manish Upadhyay
4. Pramod Kumar Sharma
5. Rashmi Pareek
6. Divyansh Sharma
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8. Neeti Bhatia

True/ False

Remembering

- | | True | False |
|---|--------------|--------------|
| 1. Ordinal method of finding consumer's equilibrium is also known as Hicksian method. | | True |
| 2. TU starts from the point of origin. | True | |
| 3. MU is the change in TU due to change in one unit. | True | |
| 4. The Budget line is a downward sloping straight line. | True | |
| 5. Cardinal approach is used only on things having standard measuring unit. | True | |
| 6. Consumer gets maximum satisfaction at a point where MU_x is zero. | | False |
| 7. MRS represents the slope of budget line. | False | |
| 8. TU is minimum when $MU=0$. | False | |

Understanding

- | | |
|--|--------------|
| 2. Law of diminishing marginal utility applies when the consumer is of sound mind. | True |
| 5. When price of Good Y increases, budget line will shift towards zero on Y axis. | True |
| 21. Higher IC shows higher level of satisfaction . | True |
| 23. Consumer's Equilibrium is when budget line intersect higher IC curve. | True |
| 7. In equi marginal utility concept, consumer is at a point of equilibrium when $MU_{MX} = MU_M$ | False |
| 11. Different points on an IC represents different level of satisfaction. | False |

18. IC curve shows production of two goods. **False**
20. IC is convex from the point of origin due to decrease in marginal rate of exchange. **False**
27. At the point of satiety, $MU_x = 1$. **False**
8. IC can not touch X-axis but can touch Y axis. **False**

Analysing

9. Utility is directly linked with usefulness of a commodity. **False**
19. Monotonic preference is an assumption of budget line. **False**
13. Two ICs intersect each other when they represent same level of satisfaction. **False**
22. Maximum satisfaction of consumer is achieved when TU is at maximum point. **True**

Evaluation

10. Any consumption beyond the point of satiety leads to disutility. **True**
24. Two indifference curve can intersect each other. **False**
3. The slope of budget line will increase with increase in the price of Good-Y **False**
26. If $MU_x = 4$ utils and $P_x = \text{Rs.} 8$ than $MU_M = 0.5$. **False**

Applying

25. As MRS_{xy} increases then IC is convex to the origin. **False**
4. If income of a household increases, budget line will shift to its left. **False**

TRUE AND FALSE

- 1 Utility derived from an additional unit of a good is called.....(marginal utility)
- 2 As we consume more and more units of a commodity its total utility..... At diminishing rate.(decreases)
- 3 Answer of a commodity increases the marginal utility.....(diminishes)
- 4 Total utility is maximum when marginal utility is.....(zero)
- 5 Total utility when marginal utility is decreasing but positive.(increases)
- 6 Marginal utility is dash when total utility diminishes (negative)
- 7 Total utility decreases when marginal utility is.....(negative)
- 8 A consumer strikes as by equipment price of a commodity with total utility derived from the commodity (equilibrium)
- 9 Refers to the want satisfying capacity of a commodity. (Utility)
- 10 law of diminishing marginal utility States as more and more units of a commodity tends to decline.(marginal utility)
- 11 Marginal utility of money refers toof a rupee to a consumer.(worth)
- 12 indifference curve analysis of consumer equilibrium is based on the concept of measurement of utility. (. Ordinal)

- 13 An indifference curve is to the point of origin.(convex)
- 14 Convexity of indifference curve to the origin indicates that marginal rate of substitution..... (diminishes)
- 15 According to the IC approach utility can be measured in terms of(ranks)
- 16 If MRS is increasing throughout IC curve will be sloping concave.(downward)
- 17 If MRS is constant throughout the IC curve will be downward sloping.....(straight line)
- 18 Marginal utility will be if consumption of n additional unit of a commodity causes in TU(zero)
- 19 refers to the additional utility derived from the consumption of an additional unit of a commodity (Marginal utility).
- 20 Budget line shiftswhen a consumer consumes only two goods and if income decreases.(leftward)
21. When Mu is zero it is referred as the point of(satiety)
- 22 Indifference curve always slopes from left to right(downward)
- 23 Indifference curve are always towards the point of origin.(convex)
- 24 In the equation of budget constraint $P_x Q_x + P_y Q_y \dots M$ ()
- 25 Any point on IC curve slope shows satisfaction. (equal)
- 26 Budget line is also known as.....(price line)
- 27 When the price line is to the indifference curve the consumer is said to be in equilibrium (tangent)

Match the following

1.

(a)	Movement along the same IC	(a)	Consumer prefers more goods to less
(b)	Shift from lower IC to higher	(b)	Consumer has equal preference (a)
(c)		(c)	Consumer prefer less goods to more (b)
(d)		(d)	

2.

(a)	$\frac{MU_x}{P_x} > \frac{MU_y}{P_y}$	(a)	Consumption of good Y rises while that of good X falls
-----	---------------------------------------	-----	--

(b)		(b)	Consumption of good X rises while that of good Y falls (a)
(c)		(c)	Consumption of good X and Y rises.
(d)		(d)	

3.

(a)	Budget line is a straight line	(a)	When MRE diminishes.
(b)		(b)	When MRE is not constant
(c)		(c)	When market rate of exchange (MRE) is constant. (a)
(d)		(d)	

4.

(a)	Two Indifference Curves (IC) are non-intersecting	(a)	Different ICs have same level of satisfaction
(b)		(b)	Differences ICs have different levels of satisfaction. (a)
(c)		(c)	At intersection point both ICs have equal satisfaction.
(d)		(d)	

5.

(a)	Budget line is downward sloping when	(a)	Consumption of both the goods decreases.
(b)		(b)	Consumption of good X increases and good Y decreases. (a)
(c)		(c)	Consumption of both the goods are equal
(d)		(d)	

6.

(a)	In TU and MU relationship point of satiety	(a)	MU is negative.
(b)		(b)	MU is Zero (a)
(c)		(c)	MU is rising
(d)		(d)	MU is falling

7.

(a)	If MRS_{xy} is constant, IC will be	(a)	Parallel to X-axis
(b)		(b)	Downward sloping straight line (a)
(c)		(c)	Convex to the origin

8.	(d)		(d)	Parallel to Y-axis.
	(a)	Total Utility is	(a)	Utility from number of units consumed
	(b)		(b)	Sum of MUs derived number of units consumed. (a)
	(c)		(c)	Difference between MU derived from first and second unit of a commodity
9.	(d)		(d)	
	(a)	TU is raising	(a)	a) MU is positive
	(b)	TU is falling	(b)	b) MU is negative (b)
	(c)		(c)	c) MU is zero
10.	(d)		(d)	d) MU is diminishing (a)
	(a)	IC is convex to the origin, it implies	(a)	Slope of IC is diminishing MRS_{xy}
	(b)		(b)	IC is increasing MOC
	(c)		(c)	Slope of IC is increasing MRS_{xy}
11.	(d)		(d)	
	(a)	MU is given by	(a)	$\Delta MU / \Delta Q$
	(b)		(b)	$\Delta TU / \Delta Q$ (a)
	(c)		(c)	
12.	(d)		(d)	
	(a)	In cardinal approach consumer equilibrium implies (single commodity)	(a)	$MU_x = TU_x$
	(b)		(b)	$TU_x = P_x$
	(c)		(c)	$MU_x = P_x(a)$
13.	(d)		(d)	
	(a)	Law of Diminishing MU is given by	(a)	Adam Smith
	(b)		(b)	Alfred Marshall (a)

(c)		(c)	Hicks
(d)		(d)	Gossen

14.

(a)	MU is calculated as	(a)	Difference between two units consumed
(b)		(b)	Cost of one unit consumed
(c)		(c)	Addition to the TU by consuming one extra unit (a)
(d)		(d)	

15.

(a)	Equation of Budget line is	(a)	$P_x Q_x - P_y Q_y = M$
(b)		(b)	$P_x Q_x + P_y Q_y = M$ (a)
(c)		(c)	$P_x P_x + Q_y Q_y = M$
(d)		(d)	

16.

(a)	Cardinal approach is given by	(a)	Hicks and Allen (b)
(b)	Ordinal approach is given by	(b)	Alfred Marshall (a)
(c)		(c)	A Samuelson
(d)		(d)	Adam Smith

17.

(a)	Scale of preference is indicated by	(a)	Indifference set
(b)		(b)	Indifference map (a)
(c)		(c)	Budget Set
(d)		(d)	Budget Line

Producer's Equilibrium & Supply

M C Q

-
1. Average product is
 - (a) **Total products/Units of variable factor**
 - (b) $TP_n - TP_{n-1}$
 - (c) ΣMP
 - (d) $\Delta TP / \Delta \text{ no. of units of variable factors}$
 2. Marginal Revenue is equal to
 - (a) **$TR_n - TR_{n-1}$**
 - (b) $TR_{n-1} - TR_n$
 - (c) TR/Q
 - (d) $AR \times Q$
 3. Producer's equilibrium is the condition when:
 - (a) $MR > MC$
 - (b) $MR < MC$
 - (c) **$MR = MC$**
 - (d) $TR = MC$
 4. Expenditure incurred by the producers to promote sale of the commodity refers to
 - (a) Explicit cost
 - (b) Implicit cost
 - (c) **Selling cost**
 - (d) Variable cost
 5. Payment made by firm to others for the purchase of inputs is known as:
 - (a) Implicit Cost
 - (b) Fixed Cost
 - (c) Variable Cost
 - (d) **Explicit cost**
 6. The rightward shift of the supply curve takes place because of:
 - (a) Increase in consumer's income
 - (b) Decrease in the price of the commodity
 - (c) Increase in the price of the commodity
 - (d) **Use of innovative technique of production**
 7. Revenue equals to
 - (a) TR/Q
 - (b) $\Delta TR / \Delta Q$
 - (c) **Price \times Q**
 - (d) $TR_n - TR_{n-1}$
 8. Returns to a factor is related to
 - (a) **Long period**
 - (b) Short period
 - (c) Very short period
 - (d) Long & Short period
 9. Compare the behaviour AFC when output increases
 - (a) AFC increases
 - (b) AFC remains constant
 - (c) **AFC decreases**
 - (d) AFC increases at diminishing rate
 10. When TR is maximum then MR equals to
 - (a) MR is minimum
 - (b) MR is maximum
 - (c) **MR is Zero**
 - (d) $MR = AR$

11. What is the shape of average revenue curve under perfect competition?
 - (a) **Horizontal straight line**
 - (b) Vertical straight line
 - (c) Rectangular Hyperbola
 - (d) Downward to the right
12. A producer runs abnormal profits when
 - (a) $TR > TC$
 - (b) $TR < TC$
 - (c) **$TR = TC$**
 - (d) TR is Zero
13. Returns to scale applies in
 - (a) **Long run**
 - (b) Short run
 - (c) Long & short run
 - (d) Very short run
14. Producer's equilibrium refers to the situation of
 - (a) **Profit maximization**
 - (b) Losses
 - (c) Normal profit
 - (d) Extra losses
15. Which of the following equation is correct?
 - (a) **$MP = \Delta TP / \Delta L$**
 - (b) $MP = Q / \Delta L$
 - (c) $AP = TP_n - TP_{n-1}$
 - (d) $MP = \Delta Q / L$
16. If Total cost at 20 units of output is Rs. 110. The fixed cost is Rs. 10. The Average Variable cost at 20 units of output is:
 - (a) Rs.20
 - (b) Rs. 15
 - (c) Rs.10
 - (d) **Rs.5**
17. When output increases from 6 units to 8 units and TR increases from Rs. 250 to Rs. 300 then MR is
 - (a) Rs. 30
 - (b) Rs. 20
 - (c) **Rs. 25**
 - (d) Rs. 50
18. When TR is 27 and unit of output is 3. Then AR equals to
 - (a) 27
 - (b) 9
 - (c) 8
 - (d) **10**
19. When $MP=0$, then TP
 - (a) Is at its lowest
 - (b) **Is at its Maximum**
 - (c) Begins to fall
 - (d) Becomes negative
20. What does break even point indicate?
 - (a) **$TR > TC$**
 - (b) $TR = TC$
 - (c) $TR < TC$
 - (d) $TC = 0$
21. If the % change in the supply of the commodity is equals to % change in its price, the price elasticity of supply for the commodity will be

- (a) $E_s=1$ (b) $E_s<1$
 (c) $E_s>1$ (d) $E_s=0$
22. When TP is 200 units and units of variable factors are 5, Average product will be
 (a) **40** (b) 50
 (c) 10 (d) 195
23. Stages of production are the result of
 (a) Law of diminishing returns to scale
 (b) **Law of variable proportion**
 (c) Law of diminishing marginal utility
 (d) Low of diminishing marginal rate of transformation
24. Development of special economic zone influenced the cost of the firm. Choose the correct option through which it has impact on firm's cost
 (a) Firms get midday meal facilities in SEZ
 (b) Firms employees get health facilities in SEZ
 (c) **Firms get banking facilities and insurance facilities in SEZ**
 (d) Firms get better climate conditions in SEZ
25. When a firm is able to sell more quantity of output at the same price, then
 (a) $AR>MR$ (b) **$AR=MR$**
 (c) $AR<MR$ (d) $MR=TR$
26. AR curve is less elastic under monopoly than monopolistic competition due to
 (a) **Lack of close substitutes** (b) Availability of close of substitutes
 (c) Low degree of government control (d) High degree of government control
27. The price elasticity of supply in case of perishable goods as compared to durable goods:
 (a) **Less elastic** (b) More elastic
 (c) Unitary elastic (d) Perfectly inelastic
28. If the price elasticity of supply for the commodities is 2. Its price rises from Rs. 10 per unit to Rs. 14 per unit. Calculate % increase in its supply
 (a) 60% (b) 70%
 (c) **80%** (d) 90%

True/ False

	True	False
1. Increase in supply at the same level of price is called expansion of supply	<input type="checkbox"/>	<input type="checkbox"/>
2. If the marginal product is Zero then total product is maximum.	<input type="checkbox"/>	<input type="checkbox"/>
3. Fixed factors are those which change with change in output	<input type="checkbox"/>	<input type="checkbox"/>
4. Supply is always related to price of the commodity	<input type="checkbox"/>	<input type="checkbox"/>
5. Average revenue is constant while marginal revenue is constant.	<input type="checkbox"/>	<input type="checkbox"/>
6. TR curve always shoots from the origin	<input type="checkbox"/>	<input type="checkbox"/>
7. Conditions of producer's equilibrium are that $MC=MR$ and MC curve must be rising		<input type="checkbox"/>
8. Breakeven point always indicates maximization of profits	<input type="checkbox"/>	<input type="checkbox"/>
9. Total revenue is sum total of marginal revenue.	<input type="checkbox"/>	<input type="checkbox"/>
10. When $MR = 0$, TR is maximum	<input type="checkbox"/>	<input type="checkbox"/>
11. Production function is purely a technical relation which connects factor inputs and outputs.	<input type="checkbox"/>	<input type="checkbox"/>
12. TVC and TC curves seem vertically parallel and vertical distance between the two is equal because TFC remains constant	<input type="checkbox"/>	<input type="checkbox"/>
13. Supply never changes price changes	<input type="checkbox"/>	<input type="checkbox"/>
14. Supply remains constant even the quantity supply changes	<input type="checkbox"/>	<input type="checkbox"/>
15. A producer supplies more of a commodity only at a higher price	<input type="checkbox"/>	<input type="checkbox"/>
16. At a point of intersection of two supply curves, flatter curve shows higher elasticity of supply.	<input type="checkbox"/>	<input type="checkbox"/>
17. When TP is 300 units and units of variable factors are 3. AP will be 150	<input type="checkbox"/>	<input type="checkbox"/>

18. Greater production always greater revenue ☐ ☐ [F]
20. Under perfect competition, rate of TR never declines and but under monopoly and monopolistic it does ☐ [T] ☐ []
21. AVC of one unit of output is Rs. 5 while that of two units is Rs. 4. Then MC of one unit will be 5. ☐ [] ☐ [F]
22. Marginal cost curve intersects the ATC and AVC curves at their minimum points. ☐ [T] ☐ []
23. Short run marginal cost curve is U shaped because of the law of variable proportion ☐ [T] ☐ []
24. Falling MC corresponds to rising MP is a situation of decreasing returns to factor ☐ [] ☐ [F]
25. When price is constant, then $AR > MR$ ☐ [] ☐ [F]
26. MR tends to fall even when AR is constant ☐ [] ☐ [F]
27. Stage of diminishing returns is the stage of operations ☐ [T] ☐ []
28. Extension and contraction of supply are related to factors other than own price of the commodity ☐ [] ☐ [F]
29. When a firm is using some rigid technology, its elasticity tends to be high. ☐ [] ☐ [F]

Match the following

REMEMBERING

1.

(a)	Supply function	(a)	It is a graphic presentation of supply schedule of an individual firm. (b)
(b)	Individual supply curve	(b)	It a graphic presentation of market supply schedule
(c)		(c)	Studies functional relationship between supply of a commodity and its various determinants (a)
(d)		(d)	Studies functional relationship between demand of a commodity and its various determinants

2.

(a)	Movement along supply curve	(a)	Increase in supply
(b)	Shift in supply curve	(b)	Change in demand
(c)		(c)	Increase or decrease in supply (b)
(d)		(d)	Change in quantity supplied (a)

3. Which of the following indicates:

(a)	Increase in supply	(a)	change in taxation
(b)	Decrease in supply	(b)	change in number of firms
(c)		(c)	Decrease in taxation (a)
(d)		(d)	Decrease in number of firms (b)

4.

(a)	Elasticity of supply =	(a)	$\frac{\Delta Q}{\Delta P} \times \frac{P}{Q}$ (a)
(b)	$E_s > 1$	(b)	If % change in quantity supplied < % change in price
(c)		(c)	If % change in quantity supplied > % change in price (b)
(d)		(d)	$\frac{\% \text{ change in price}}{\% \text{ change in quantity supplied}}$

5.

(a)	Supply refers to different quantities of a commodity which producer is ready to sell at different prices	(a)	Both present and future sale (b)
(b)	Stock refers to total quantity available with producer for	(b)	Present sale only
(c)		(c)	At a point of time (a)
(d)		(d)	At same price always

6.

(a)	Producer	(a)	Situation where profit are minimised and difference between TR and TC is minimum
(b)	Producer equilibrium	(b)	A producer is an economic agent who produces goods and services and earns profit (a)
(c)		(c)	Situation where profit are maximised and difference between TR and TC is maximum (b)
(d)		(d)	A producer produces goods and earn profit

7.

(a)	Break even point	(a)	AR = AVC (b)
(b)	Shut down point	(b)	AR = AC (a)
(c)		(c)	AR < AC
(d)		(d)	AR = MR

8.

(a)	Gross Profit	(a)	$TR > TC$ (b)
(b)	Abnormal Profit	(b)	$TR - TC$
(c)		(c)	$TR - TVC$ (a)
(d)		(d)	$TC < TR$

9.

(a)	When TR is maximum	(a)	MR is constant
(b)	When TR is diminishing	(b)	MR is positive
(c)		(c)	MR is zero (a)
(d)		(d)	MR is negative (b)

10.

(a)	Net profit	(a)	$TR - \text{Explicit Cost}$ (b)
(b)	Accounting Profit	(b)	$TR > TC$
(c)		(c)	$TR - TC$ (a)
(d)		(d)	$TR < TC$

11.

(a)	TR	(a)	$\sum MC$ (b)
(b)	TVC	(b)	$TR - TVC$
(c)		(c)	$\sum MR$ (a)
(d)		(d)	$TR - TC$

UNDERSTANDING

12.

(a)	Area under MC curve	(a)	AFC (b)
(b)	Cost which decreases per unit of	(b)	TC

	production		
(c)		(c)	TVC (a)
(d)		(d)	TFC

13.

(a)	Two supply curves starting from origin	(a)	Steeper supply curve will have $E_s > 1$ (b)
(b)	When two supply curves intersect with each other	(b)	Will have different elasticity
(c)		(c)	Will have same elasticity (a)
(d)		(d)	Steeper supply curve will have $E_s < 1$

14.

(a)	Extension of supply	(a)	Indicates movement away from supply
(b)	Contraction of supply	(b)	Indicates movement on the supply curve towards right (a)
(c)		(c)	Indicates movement on the X – axis stating change in units
(d)		(d)	Indicates movement on the supply curve towards left (b)

15. What does the following situation indicates?

(a)	P_xQ_x 10 30 10 20	(a)	Increase in supply (b)
(b)	P_xQ_x 10 20 10 30	(b)	Quantity supplied is same
(c)		(c)	Decrease in supply (a)
(d)		(d)	Change in quantity is always in proportion with change in price

16.

(a)	Perfect competition producer's equilibrium conditions	(a)	Shut down point (b)
(b)	When a firm is able to cover its variable	(b)	AR = MR = TC and TC must be

	cost only when		rising
(c)		(c)	AR = MR = MC and MC must be rising (a)
(d)		(d)	Break even point

17.

(a)	If the firm increases its output even after MR = MC, equilibrium is struck , then	(a)	MR becomes greater than MC (b)
(b)	Production may continue so long as	(b)	MR states equal to MC
(c)		(c)	MC becomes greater than MR (a)
(d)		(d)	TR is greater than or equal to TVC

18.

(a)	Producer's equilibrium condition	(a)	MR = MC and MC is rising
(b)	Rising portion of MC	(b)	Demand Curve
(c)		(c)	MR = MC and MC rising at the point of equilibrium (a)
(d)		(d)	Supply curve (b)

19.

(a)	Normal Profit is equal to	(a)	TR – Explicit Cost
(b)	Economic Profit	(b)	Total Cost (a)
(c)		(c)	Total Revenue
(d)		(d)	TR – (Explicit Cost + Implicit Cost) (b)

APPLICATION

20.

(a)	$E_s = \infty$	(a)	Supply curve is 45° from the origin
(b)	$E_s = 0$	(b)	Supply curve is parallel to y axis (b)

(c)		(c)	Supply curve is steeper intersecting x axis
(d)		(d)	Supply curve is parallel to x axis (a)

21. Given price and quantity supplied of a commodity match with its elasticity

(a)	$P_x Q_x$ 10 100 12 120	(a)	$E_s = 1$ (a)
(b)	$P_x Q_x$ 10 100 15 110	(b)	$E_s > 1$
(c)		(c)	$E_s < 1$ (b)
(d)		(d)	$E_s = 0$

22. Recognise the type of market with the given schedule and match:

(a)	Q _x sold(units)TR 1 10 2 20 3 30	(a)	Imperfect competition (b)
(b)	Q _x sold(units)TR 1 10 2 17 3 22	(b)	Monopoly
(c)		(c)	Monopolistic
(d)		(d)	Perfect competition (d)

23. Match the nature of the supply curve with its elasticity.

(a)	Flatter supply curve	(a)	$E_s = \infty$
(b)	Steeper supply curve	(b)	$E_s > 1$ (a)
(c)		(c)	$E_s < 1$ (b)
(d)		(d)	$E_s = 1$

24.
.....

(a)	%change in supply = %change in its price	(a)	Unitary elastic supply (a)
(b)	% change in supply < % change in its price	(b)	Less than unit elastic supply (b)
(c)		(c)	More than unit elastic supply
(d)		(d)	Perfectly inelastic supply

ANALYSIS

25. Match the given situation with the elasticity of supply.

(a)	If the technique used by the producer is	(a)	$E_s = 1$
-----	--	-----	-----------

	complicated		
(b)	Very short period	(b)	$E_s > 1$
(c)		(c)	$E_s < 1$ (a)
(d)		(d)	$E_s = 0$ (b)

26. Match the given figures with the situations it is expressing:

(a)	MR=Rs 5 MC=Rs 5	(a)	Producer's equilibrium (a)
(b)	AR=Rs 7 AC= Rs5	(b)	Abnormal loss
(c)		(c)	Abnormal profits (b)
(d)		(d)	Normal profits

27.

(a)	Slope of supply curve	(a)	$\frac{P}{Q}$
(b)	Slope of TR curve	(b)	$\frac{\Delta Q}{\Delta P}$ (a)
(c)		(c)	$\frac{\text{revenue}}{\text{output sold}}$
(d)		(d)	$\frac{\Delta TR}{\Delta Q}$ (b)

Fill in the blanks

REMEMBERING

1. _____ Expenditure incurred by the producer on the purchase of inputs from the market leads to _____ (explicit cost)
2. _____ Expenditure on raw material leads to _____ cost. (Variable cost)
3. _____ Law of supply states that there is relationship between price and supply of a commodity. (Positive)
4. _____ The cost which vary as the level of output varies are called _____. (Variable cost)
5. _____ is the sum total of fixed cost and variable cost, corresponding to a given level of output. (total cost)

UNDERSTANDING

6. Firm supply curve is indicated by the _____ segment of MC curve. (rising)
7. _____ When supply rises with constant price it is called _____. (increase in supply/ extension in supply)
8. _____ In the case of increase in supply, supply curve shifts to the _____. (right)
9. _____ During the _____ period, production cannot be changed at all. (short)
10. _____ At break-even point _____. (AR=AC)
11. _____ TR>AC is a situation of _____. (perfectly inelastic)
12. _____ When supply curve is vertical straight line than _____. (perfectly inelastic)

ANALYSIS

13. _____ At shut down point (AR=AVC)

14. _____
TR-TVC =
(gross profit)
15. _____
In case of increase
(right)
16. _____
Accounting profit
(explicit cost)
17. _____
Difference
(short period)
18. _____
The elasticity of
(less elastic)
19. _____
The elasticity of
supply of the goods is usually _____, for which raw material is easily available. (more elastic)

APPLYING

20. _____
If TR = Rs. 25 and
TC = 37, it is a case of _____.
(sub-normal profit)
21. _____
If percentage
change in supply is 50% and percentage change in price is 30%, elasticity of supply is
_____.
($E_s=167$)
22. _____
If AR=Rs. 5 and
MR is also same, the type of market is _____. (Perfect competition)
23. _____
If 50 degree
supply curve when extended touches point of origin, elasticity of supply is _____. ($E_s=1$)
24. _____
The type of
profit/loss position when AR=AC is _____.
(normal profit)
25. _____
If the input used
by a firm is not easily avoidable then the E_s will be _____.
($E_s<1$)
26. _____
In case of E_s is
greater than 1 supply curve is _____.
(flatter)
27. _____
Normal profit is a
part of _____.
(Total cost)

28. shift the supply curve towards _____. Imposition of GST, (left)
29. TC=37, it is a case of _____. (sub- normal profit) If TR= Rs 25 and
30. equilibrium is struck at that level of output where the difference between TR and TC is _____. Producer's (maximised)

Production Cost and Revenue

M C Q

REMEMBERING

1. Production function is a relationship between
 - (a) **input& output**
 - (b) output only
 - (c) inputs only
 - (d) goods & services
2. Shape of AFC is
 - (a) inverted u-shaped
 - (b) **rectangular hyperbola**
 - (c) inverted s- shaped
 - (d) downward sloping straight line
3. Which of the following formulae is correct?
 - (a) $ATC = AFC - AVC$
 - (b) $AVC = AFC + ATC$
 - (c) $AFC = ATC + AVC$
 - (d) **$AFC = ATC - AVC$**
4. What happens to TR when MR is positive?
 - (a) **TR increases.**
 - (b) TR is max.
 - (c) TR Decreases
 - (d) TR remains the same.
5. At point of inflexion
 - (a) **TP is max.**
 - (b) MP is zero
 - (c) MP is max.
 - (d) TP is falling

UNDERSTANDING

6. TC starts from the starting point of
 - (a) **TFC**
 - (b) TVC
 - (c) Origin
 - (d) Both (b) & (c)
7. AR curve is more elastic in case of
 - (a) oligopoly
 - (b) perfect competition
 - (c) monopoly
 - (d) **monopolistic competition**
8. MC curve cuts the AC curve
 - (a) **at its minimum point**
 - (b) when AC is falling
 - (c) at its max. point
 - (d) when AC is rising
9. A rational producer would like to operate in _____ phase of law of variable proportion
 - (a) I
 - (b) **II**
 - (c) III
 - (d) both (a) & (b)

10. Following is an example of explicit cost
- (a) **Payment of interest on borrowed money.**
 - (b) Normal profit
 - (c) Opportunity cost of firm's own money.
 - (d) Salary of entrepreneur's own labour

APPLICATION

11. A firm has a variable cost of Rs.1000 at five units of output. If fixed cost is Rs.400, what will be the average fixed cost .
- (a) Rs.280
 - (b) **Rs. 80**
 - (c) Rs.200
 - (d) .Rs. 1400
12. An ice-cream seller has decided that he will sell all his ice-cream at fixed price of Rs. 20 each in such a case total revenue curve will be?
- (a) Horizontal straight line parallel to x-axis
 - (b) **Positively sloped straight line passing from the origin.**
 - (c) Vertical straight line parallel to x axis.
 - (d) downward sloping straight line.
13. During short period, production can be increased through.
- (a) Greater application of fixed factors
 - (b) **Greater application of variable factors ..**
 - (c) Greater application of all the factors of production
 - (d) application of better technology.
14. A firm is able to sell more quantity of a good only by lowering the price .the firm's marginal revenue, as he goes on selling, would be.
- (a). Equal to AR
 - (b) **Less than AR**
 - (c) Greater than AR
 - (d) Zero.
15. When MP rises:
- (a) **TP increases at increasing rate**
 - (b) TP is maximum
 - (c) TP increases at decreasing rate
 - (d) TP starts falling

ANALYSIS and EVALUATION

16. Which of the following leads to the Law of Variable Proportions:
- (a) **some factors are constant**
 - (b) some factors are more efficient than the others
 - (c) specialization of factors
 - (d) all factors are constant

17. A firm is able to sell any quantity of a good at a given price. The firm's MR will be:
- (a) greater than AR (b) less than AR
(c) **equal to AR** (d) zero
18. AP can't be negative because:
- (a) TP can never be zero (b) **TP can never be negative**
(c) fixed cost can never be zero (d) MP can be negative
19. AR curve is more elastic under monopolistic competition than under monopoly due to:
- (a) lack of availability of close substitutes (b) **availability of close substitutes**
(c) high degree of product differentiation (d) both (b) and (c)
20. The total cost of 10 units of output is Rs. 55. The fixed cost is Rs. 5, AVC of 10 units of output is:
- (a) Rs. 25 (b) Rs. 6
(c) **Rs. 5** (d) Rs.1

CREATING

21. Increase in FDI would shift the average cost curve of a firm:
- (a) **Downward** (b) upward
(c) rightward (d) leftward.
22. Improvement in infrastructural facilities leads to:
- (a) **Modernisation in cost of production** (b) Increase in the cost of production
(c) Both a & b (d) no impact on cost of production.
23. Horizontally straight price line for a firm indicates that market is operating under:
- (a) Oligopoly (b) Monopoly
(c) monopolistic (d) **perfect competition**
24. Under perfect competition a farmer entire produce by potatoes destroyed by the animals, makes the AR curve:
- (a) least affected at all (b) a horizontal straight line
(c) both a & b (d) a downward sloping curve
25. AP is much higher in developed countries like USA than in less developed countries like India: which of the given reasons is false:
- (a) Developed countries use much more advanced technology
(b) Efficiency of Labours is much higher in advanced countries.
(c) both a & b
(d) **abundance of labour in developed nation**

True/ False

True False

REMEMBERING

1. AR is change in TR when an additional unit of variable factor like labour is used. [F]
2. Average variable cost is total fixed cost per unit of output produced. [F]
3. In short run, inputs are classified as fixed and variable [T]
4. Both MP and AP curves are Ushaped [F]
5. TFC can't be zero [T]

UNDERSTANDING

6. Increase in TP always indicates that there are increasing return to a factor [F]
7. MP ca never be negative. [F]
8. AR curve is always parallel to X axis. [F]
9. TFC and TVC can't intersect each other. [T]
10. When MR is constant, TR will increase at a constant rate. [T]

APPLICATION

11. Salary of a permanent staff is a type of explicit cost. [T]
12. AR revenue is always equal to price. [T]
13. $AR > MR$ when a firm sells more quantity at a decreased price. [T]
14. Minimum telephone bill is a variable cost. [F]
15. When price of a commodity Rs.6 per unit, value of AR is Rs.6. [T]

ANALYSIS/EVALUATION

16. AC falls only when MC falls. [F]
17. Under law of variable proportion factor ratio doest not change. [F]
18. It is more profitable for the producers to be I astage of increasing return than the stage of diminishing return. [F]
19. When TR increasing at a constant rate ,MR should decrease [F]
20. When Tr is maximum then MR will also be maximum. [F]
21. Diminishing returns are reversed through mechanisation of Agriculture. [T]
22. AP is lower in USA and higher in India. [F]
23. For the owner of the firm as a result of continuously fall in overhead cost per unit of output output has increased.It is a situation of ever rising profit for a firm. [F]
24. When electricity tariff is increased for the commercial use it leads to increase in the variable cost. [T]
25. Devlepmnet of SEZ influenced the cost of production. [T]

Fill in the blanks

1. _____ is the ratio of total product to total variable input. **(Average Product)**
2. When total product is increasing at increasing rate marginal product_____.**(Increases)**
3. Production function is the functional relationship between _____ and output of production.
(Input)
4. $Q=f(L, \bar{K})$ is the equation represents short run production where \bar{K} refers to _____.
(fixed factor)
5. 2,4,8,14,22 is the progression of total product then MP will _____. **(increasing)**
6. If fixed factor is one unit and variable factor zero then total product will be _____.
(zero)
7. When we combine one fixed factor and one variable factor, initially output increases at _____ rate. **(increasing)**
8. Average product is _____ when $MP = AP$. **(maximum)**
9. Before AP & MP intersects each other AP is _____ MP. **(lower than)**
10. Owing to _____ MP becomes negative & TP falls. **(poor coordination)**
11. A cost function shows the functional relationship between _____ and cost of production.
(output/input)
12. Rent on own building is the example of _____ cost. **(implicit)**
13. Cost that does change with the change in level of output is called_____. **(fixed cost)**
14. AFC is defined as the cost of producing _____of the commodity. **(per unit)**
15. The reason behind the U shape of AVC curve is the _____. **(Law of variable proportion)**

16. When $MC = AC$ then AC is _____. (minimum)
17. MC curve cuts the AC curve at its _____ point. (minimum)
18. At zero level of output total cost is equal to _____. (TFC)
19. The vertical distance between TVC & TC is _____. (TFC)
20. A firm earns _____ by selling the good in the market. (Revenue)
21. $TR = \text{Price} \times$ _____. (Quantity)
22. _____ of a firm is the increase in total revenue for a unit increase in the firm's output. (MR)
23. For the perfect competition firm, _____ = AR . (MR)
24. Market demand curve of a firm is the _____ curve. (AR)
25. When MR is negative, TR _____. (Decrease)
26. Shape of AR curve of Dettol soap is _____. (Flatter)
27. AR is _____ for a perfect competitive firm. (Constant)
28. When MR is zero, TR will be _____. (Maximum)
29. MR curve of a monopoly firm is _____ than that of a monopolistic firm. (Steeper)

Match the following

Remembering

1.

(a)	Marginal Product	(a)	Inverted S shape
(b)	TVC Curve	(b)	$AP * Q$
(c)		(c)	U shape
(d)		(d)	Incremental product

Ans. (i) a - d (ii) b - a

2.

(a)	When $MP = 0$	(a)	$\sum MP$
(b)	TP	(b)	TP is rising
(c)		(c)	TP is Maximum
(d)		(d)	TP is falling.

Ans. (i) a - c (ii) b - a

3.

(a)	When TP is falling	(a)	AP is rising.
(b)	When $MP = AP$	(b)	MP is negative.
(c)		(c)	AP is constant and maximum.
(d)		(d)	MP is zero.

Ans. (i) a - b (ii) b - c

4.

(a)	$MR = 0$	(a)	Price
(b)	AR	(b)	$TP_n - TP_{n-1}$
(c)		(c)	TR is maximum
(d)		(d)	$\Delta TP / \Delta L$

Ans. (i) a - c (ii) b - a

5.

(a)	TFC	(a)	$TC - TVC$
(b)	MC	(b)	$TVC + TC$

(c)		(c)	$TVC_n - TVC_{n-1}$
(d)		(d)	$TVC_n + TVC_{n-1}$

Ans. (i) a - a (ii) b - c

6.

(a)	Production Function	(a)	Functional relationship between demand and its determinates.
(b)	AR	(b)	$TR_n - TR_{n-1}$
(c)		(c)	$TR_{n-1} - TR_n$
(d)		(d)	Functional relationship between input and output.

Ans. (i) a - d (ii) b - b

7.

(a)	Long run production function	(a)	$Q = f(L, \bar{K})$
(b)	Short run production function	(b)	$Q = f(\bar{L}, \bar{K})$
(c)		(c)	$Q = f(\bar{L}, K)$
(d)		(d)	$Q = f(L, K)$

Ans. (i) a - b (ii) b - a

Understanding

8.

(a)	TVC curve	(a)	U Shaped curve
(b)	AC curve	(b)	Straight line parallel to X axis.
(c)		(c)	Upward sloping curve
(d)		(d)	Downward sloping curve

Ans. (i) a - c (ii) b - a

9.

(a)	AVC Curve	(a)	Rectangular Hyperbola
(b)	AFC curve	(b)	Inverted S Shaped
(c)		(c)	U shaped curve
(d)		(d)	Horizontal line parallel to x axis.

Ans. (i) a - c (ii) b - a

10.

(a)	MR > AR	(a)	When AC is minimum
(b)	MC = AC	(b)	Monopolistic Competition
(c)		(c)	When AC is maximum.
(d)		(d)	Monopoly.

Ans. (i) a - b (ii) b - a

11.

(a)	AFC curve	(a)	$TVC_n - TVC_{n-1}$
(b)	MC	(b)	TP / Q
(c)		(c)	$\Sigma(TFC + TVC)$
(d)		(d)	Ed = 1

Ans. (i) a - d (ii) b - a

12.

(a)	When production is zero.	(a)	MC > AC.
(b)	When AC is rising.	(b)	TFC is positive.
(c)		(c)	MC < AC.
(d)		(d)	MC is falling.

Ans. (i) a - b (ii) b - a

13.

(a)	AR	(a)	Opportunity Cost
(b)	Fixed Cost.	(b)	Real Cost
(c)		(c)	TR/ Q
(d)		(d)	Prime cost.

Ans. (i) a – c (ii) b – d

14.

(a)	AC falls	(a)	U shaped curve
(b)	AR curve	(b)	Demand curve.
(c)		(c)	When MC lies below AC.
(d)		(d)	Inverted S Shaped.

Ans. (i) a – c (ii) b – a

Applying & Evaluating

15.

(a)	MR & AC curve are steeper	(a)	Oligopoly
(b)	MR & AC curve are flatter	(b)	Monopoly
(c)		(c)	Monopolistic competition.
(d)		(d)	Perfect competition.

Ans. (i) a – c (ii) b – b

16.

(a)	Cost	(a)	Maximum profit incurred
(b)	Revenue	(b)	Expenses incurred by producer.
(c)		(c)	Payment of a buyer.
(d)		(d)	Receipt of a seller.

Ans. (i) a – b (ii) b – d

17.

(a)	Fixed Cost	(a)	Factors which can be changed during a short period.
(b)	Variable Cost.	(b)	Factors which cannot be changed.

(c)		(c)	Cost of fixed factor
(d)		(d)	Cost of self-supplied factors.

Ans. (i) $a - c$ (ii) $b - a$

18.

(a)	Variable Cost	(a)	Cost of hired factors.
(b)	Implicit Cost	(b)	Cost of fixed factors.
(c)		(c)	Cost of raw material.
(d)		(d)	Cost of self-supplied factors.

Ans. (i) $a - c$ (ii) $b - d$

19.

(a)	Explicit Cost	(a)	Cost of hired factors.
(b)	Average Revenue	(b)	The value of next best alternative cost sacrificed.
(c)		(c)	Per unit revenue.
(d)		(d)	Incremental revenue.

Ans. (i) $a - a$ (ii) $b - c$

20.

(a)	Marginal revenue	(a)	$AR * MR$
(b)	Total revenue	(b)	Incremental revenue.
(c)		(c)	The sum total of MR.
(d)		(d)	Per unit revenue received.

Ans. (i) $a - b$ (ii) $b - c$

21.

(a)	Total Cost	(a)	Explicit Cost.
(b)	Marginal Cost	(b)	$AC * Q$
(c)		(c)	$\Sigma(TFC + TVC)$
(d)		(d)	Incremental cost.

Ans. (i) a – c (ii) b – d

Analysing

22.

(a)	Average Cost	(a)	Law of return to a scale.
(b)	Returns to a Factor.	(b)	Per unit cost of production.
(c)		(c)	$\Delta MP / \Delta TP$
(d)		(d)	Law of variable proportion.

Ans. (i) a – b (ii) b – d

23.

(a)	AFC	(a)	Point of inflexion.
(b)	TVC	(b)	Total Cost of variable factors.
(c)		(c)	Per unit fixed cost of production.
(d)		(d)	$TC + TFC$

Ans. (i) a – c (ii) b – b

24.

(a)	AVC	(a)	Total Cost of fixed factors.
(b)	TFC	(b)	Per unit of fixed cost.
(c)		(c)	Per unit variable cost of production.
(d)		(d)	Total Cost of variable factors.

Ans. (i) a – c (ii) b – a

25.

(a)	$AR = MR = \text{Price}$	(a)	Perfect Competition
(b)	TFC Curve	(b)	Parallel to y axis.
(c)		(c)	Monopolistic Competition.
(d)		(d)	Straight line parallel to x axis.

Ans. (i) a – a (ii) b – b

MULTIPLE CHOICE QUESTIONS

REASONING

1. In which form of market, the demand curve is straight line parallel to X axis
 - (a) Monopoly
 - (b) Oligopoly
 - (c) Perfect competition
 - (d) Monopolistic competition
2. Perfect Mobility is the feature of _____market.
 - (a) Perfect Competition.
 - (b) Monopolistic Competition
 - (c) Oligopoly
 - (d) Monopoly
3. In which market form, firms and industry are same
 - (a) Oligopoly
 - (b) Monopolistic Competition
 - (c) Monopoly
 - (d) Perfect Competition
4. In case of monopolistic Competition, the slope of AR and MR is____
 - (a) flatter
 - (b) steeper
 - (c) horizontal
 - (d) vertical

5. Cartel is an important feature of _____ oligopoly:
 - (a) Perfect competition
 - (b) Collusive oligopoly
 - (c) Imperfect Competition
 - (d) Non collusive oligopoly
6. Homogeneous products are sold under ____
 - (a) Collusive oligopoly
 - (b) Perfect oligopoly
 - (c) Non collusive oligopoly
 - (d) Imperfect oligopoly
7. _____ market form has full control over price
 - (a) Perfect Competition
 - (b) Oligopoly
 - (c) Monopoly
 - (d) Monopolistic Competition

UNDERSTANDING

8. Cement Industry and Telecom industry come under
 - (a) Imperfect Oligopoly
 - (b) Perfect oligopoly
 - (c) Collusive oligopoly
 - (d) non collusive oligopoly

9. Railways and Nuclear power are the examples of
- (a) monopolistic competition (b) monopoly
(c) oligopoly (d) Perfect competition
10. Charging different prices from different buyers is known as:
- (a) Product differentiation (b) Price discrimination
(c) Price war (d) Price differentiation
11. Patent rights, trademarks, licensing lead to creation of
- (a) Perfect competition (b) Monopoly
(c) Monopolistic competition (d) oligopoly
12. Monopolistic competition is the blending of _____
- (a) Perfect competition and monopoly
(b) Monopoly and oligopoly
(c) Oligopoly and perfect competition
(d) Monopoly and monopolistic competition
13. Under monopoly, AR curve is downward sloping because
- (a) More can be sold at lower price (b) more can be sold at higher price
(c) less can be sold at constant price (d) more can be sold at same price
14. Perfect competition and monopolistic competition can be distinguished on the basis of
- (a) number of buyer (b) profit in long run
(c) number of sellers (d) type of product

APPLICATION

15. Popcorns sold inside the cinema halls, is _____ market
- (a) Perfect competition (b) monopolistic competition
(c) Oligopoly (d) Monopoly
16. At break even point, $MR =$ _____
- (a) MC (b) AC
(c) AR (d) AVC

17. Perfect competition is a non competitive form of market because of
- (a) single seller
 - (b) price war
 - (c) firm and industry are same
 - (d) uniform prices
18. Vegetable market is an example of
- (a) Monopoly
 - (b) Perfect competition
 - (c) Oligopoly
 - (d) Monopolistic competition
19. Amitabh Bachchan is advertising for Navratan oil, which feature is highlighted in this?
- (a) selling cost
 - (b) price discrimination
 - (c) homogeneous product
 - (d) Perfect mobility
20. Only one grocery shop in an area reflects_____ form of market-
- (a) Perfect competition
 - (b) Monopoly
 - (c) Monopolistic competition
 - (d) Oligopoly
21. Why the prices of Samsung and Oppo smart phones are different?
- (a) large buyers
 - (b) to increase profits
 - (c) to increase turn over
 - (d) product differentiation

ANALYSING AND EVALUATING

22. To earn abnormal profit in the long run, the producer would like to enter in _____.
- (a) Perfect Competition
 - (b) monopoly
 - (c) Oligopoly
 - (d) Monopolistic competition
23. In perfect competition-
- (a) $AR > MR$
 - (b) $AR = MR$
 - (c) $AR < MR$
 - (d) $AR \leq MR$
24. AR and MR are highly elastic in Monopolistic competition because
- (a) less substitutes are available
 - (b) no substitutes are available

- (c) more substitutes are available (d) homogeneous products
25. In a perfectly competitive market, the firms decide to leave the industry because
 (a) sub normal profits in short run (b) normal profit in long run
 (c) sub normal profits in long run (d) normal profit in short run
26. A firm's demand curve is indeterminate under oligopoly because
 (a) homogenous product (b) free entry and exit
 (c) high degree of interdependence (d) formation of cartels
27. Which of the following will not lead to monopoly?
 (a) Cartel (b) Government licencing
 (c) Patent Rights (d) Availability of substitutes
28. Considering the reaction of rival firms, is an important feature of:
 (a) Perfect Competition (b) Monopolistic Competition
 (c) Oligopoly (d) Monopoly

True/ False

REMEMBERING

- | | True | False |
|--|------|-------|
| 1. The demand curve is parallel to Y axis in a perfectly competitive market. | [] | [✓] |
| 2. Perfect mobility is feature of perfectly competitive market. | [✓] | [] |
| 3. In oligopoly market, an industry and firm are same. | [] | [✓] |
| 4. AR and MR curves are flatter under monopolistic competition. | [✓] | [] |
| 5. Cartel is an important feature of non collusive oligopoly. | [] | [✓] |
| 6. Perfect oligopoly is related to selling of homogenous products. | [✓] | [] |
| 7. Oligopoly market firm has full control over the market price. | [✓] | [] |

UNDERSTANDING

8. Cement and Telecom industries come under monopoly form of market.[] [✓]
9. Railways and atomic power are examples of monopoly. [✓] []

10. Price discrimination is charging different prices from different buyers. ☒ ☐
11. Patent rights and licencing lead to the creation of monopolistic competition.

☐ ☒

12. Monopolistic competition has the features of both monopoly and perfect competition.

☒ ☐

13. Under Monopoly, the AR curve is downward sloping because if the seller wants to sell more, he has to reduce the price.

☒ ☐

14. Firms earn normal profit in long run under perfect competition and monopolistic competition.

☒ ☐

APPLICATION

15. A horizontal demand curve under perfect competition shows that individual firms have no control on price

☒ ☐

16. Different brands of mobile phones available at different prices is an example of perfect competition.

☐ ☒

17. Only one grocery shop in a village reflects monopoly market form.

☒ ☐

18. Prices of coke and pepsi show example of price rigidity under oligopoly.

☒ ☐

20. Indian railways can not exercise price discrimination.

☐ ☒

21. Price exceeds MC under perfect competition but not under monopoly.

☐ ☒

22. A monopolist can control both price as well as quantity of his product.

☐ ☒

ANALYSING& EVALUATING

23. A monopoly firm is a price maker whereas a firm under perfect competition is a price taker.

☒ ☐

24. Slope of firm's demand curve under monopoly market is equal to infinity.

☐ ☒

25. Product differentiation allows total control over price.

☐ ☒

26. A firm under monopolistic competition makes only normal profits in the long run.

☐ ☒

27. $AR=MR$ in a monopoly market.

☐ ☒

28. Cartels are formed in collusive oligopoly.

[✓] []

Match the following

Remembering

1.
.....

(a)	Perfect Competition	(a)	Is a feature of oligopoly market
(b)	Formation of cartel	(b)	Is a feature of monopolistic market
(c)		(c)	Is a feature of perfect competition
(d)		(d)	Is a feature of monopoly market

a).....C b).....A

2.

(a)	Perfect competition	(a)	Few sellers and large no. of buyers
(b)	Monopoly	(b)	Large no. of buyers and sellers
(c)		(c)	Product differentiations
(d)		(d)	Single seller and no. of buyers

a).....B b).....D

3.

(a)	Inverse relation between price and demand	(a)	Under monopoly only
(b)	Interdependence by the firms	(b)	Both monopoly and monopolistic
(c)		(c)	Monopoly market
(d)		(d)	Oligopoly market

a).....B b).....D

Analysing

4.
.....

(a)	AR=MR	(a)	Are equal under monopoly market
(b)	AR in Monopolistic competition	(b)	Are equal under perfect competition
(c)		(c)	Horizontal straight line
(d)		(d)	Negatively slope

a).....B b).....D

Application

5.

(a)	Automobile industry	(a)	Is an example of monopolistic market
-----	---------------------	-----	--------------------------------------

(b)	Atlas cycle	(b)	Is an example of oligopoly market
(c)		(c)	Is an example of monopoly market
(d)		(d)	Is an example of perfect competition

a).....B

b).....A

6.

(a)	Selling cost will be negligible in	(a)	Monopolistic market
(b)	Perfect mobility of factors of production	(b)	Oligopoly market
(c)		(c)	Monopoly market
(d)		(d)	Perfect competition

a).....A

b).....D

Understanding

7.

(a)	Demand curve	(a)	Cannot be determined under oligopoly market
(b)	Oligopoly market	(b)	Can be determined under oligopoly market
(c)		(c)	Large no of buyers and sellers
(d)		(d)	Few large sellers

a).....A

b).....D

8.

(a)	Absence of transportation cost	(a)	Perfect competition
(b)	Price discrimination	(b)	Monopoly market
(c)		(c)	Monopolistic competition
(d)		(d)	Oligopoly market

a).....A

b).....B

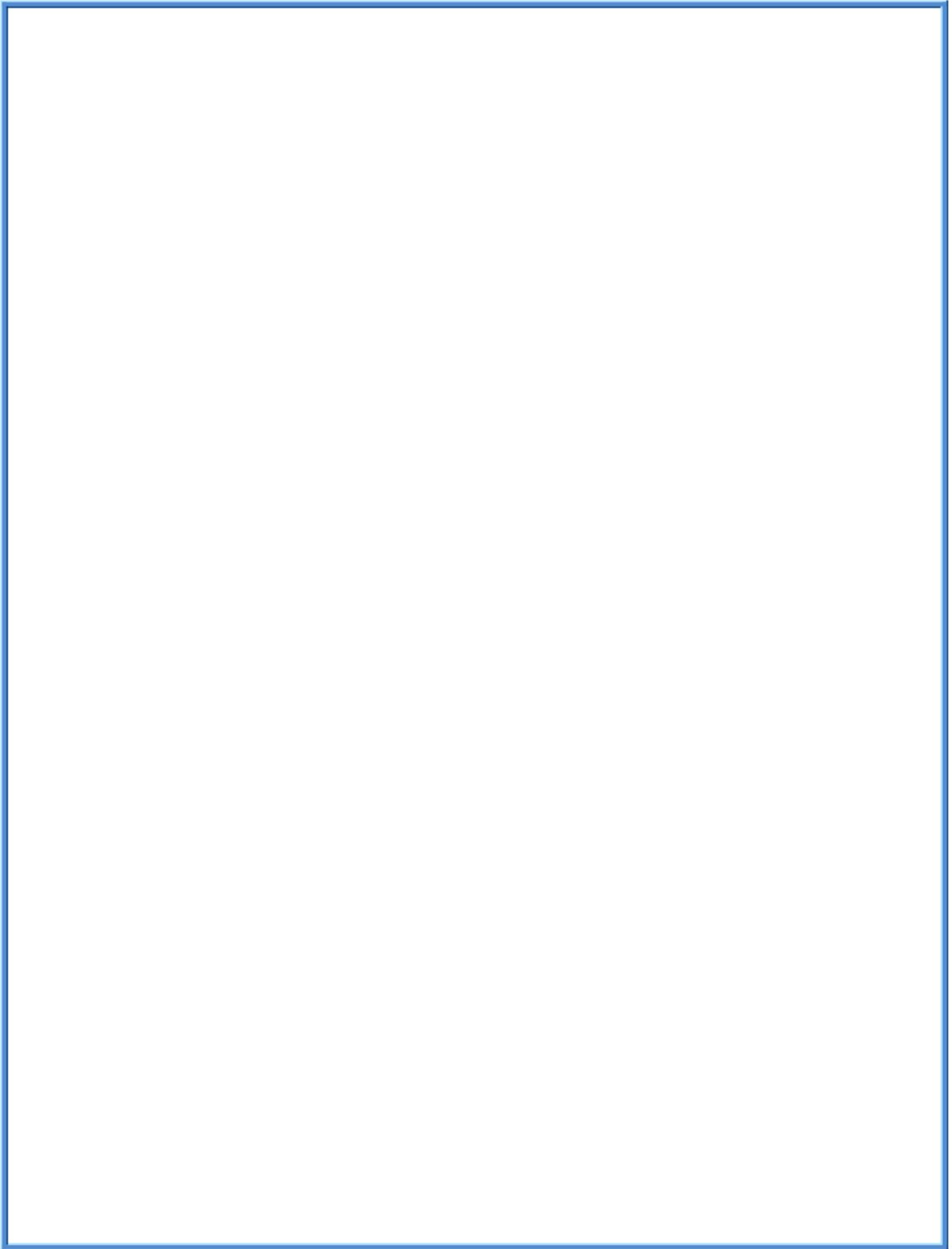
Analysis

9.

(a)	Monopolistic Competition	(a)	Downward sloping demand curve
(b)	Collusive oligopoly	(b)	Horizontally parallel to X-axis
(c)		(c)	Is also known as perfect oligopoly
(d)		(d)	Is also known as collusive oligopoly

a).....A

b)..... D



CBSE WORKSHOP

Teachers: 1. Vandana Sharma Name of the Topic: Forms of the market Date:-31-08-2019.

2. SimmyTak

5. Margeta James

3. SudhaChouhan.

6. Ritu Pandey

4. Deepa K John

7. Shubha Joshi

Match the following

Application

1.

(a)	MR < AR	(a)	Oligopoly market
(b)	Price rigidity	(b)	Perfect competition
(c)		(c)	Monopolistic competition
(d)		(d)	Monopoly market

a).....C

b).....A

2.

(a)	The AR curve and industry demand curve are same	(a)	In case of oligopoly
(b)	Perfect competition	(b)	In case of monopoly
(c)		(c)	AR=MR
(d)		(d)	AR>MR

a).....B

b).....C

Understanding

3.

(a)	Product differentiation	(a)	is a feature of monopoly market
(b)	Monopoly	(b)	Is a feature of perfect competition
(c)		(c)	Is a feature of oligopoly market
(d)		(d)	Is a feature of perfect competition

a).....B

b).....A

4.

(a)	In perfect competition	(a)	Price is determined by firm
(b)	Perfectly elastic demand curve	(b)	Price is determined by industry

(c)		(c)	Is a feature of oligopoly
(d)		(d)	Is a feature of perfect competition
a).....B		b).....D	

5

(a)	Homogeneous product	(a)	Avoid product differentiation in the market
(b)	Formation of cartel	(b)	Lead to different in the market
(c)		(c)	Avoid competition
(d)		(d)	Encourage competition
a).....B		b).....C	

Analyzing

6.

(a)	Inverse relationship between price and demand takes place	(a)	Monopolistic competition
(b)	AR=MR	(b)	Monopoly only
(c)		(c)	Monopoly and monopolistic both
(d)		(d)	Perfect competition
a).....C		b).....D	

7.

(a)	Monopoly market	(a)	Free entry
(b)	Oligopoly market	(b)	Restriction on the entry of new firm
(c)		(c)	Restriction through patent rights
(d)		(d)	Restriction through government
a).....B		b).....C	

Remembering

8.

(a)	Patent Right means	(a)	Market is free to copy all technology
(b)	Cartel means	(b)	Prohibits the use of patent technology by others
(c)		(c)	Individual decision making.

(d)		(d)	Collective decision making by a group

a).....B

b).....d

9.

(a)	Perfect competition	(a)	In long run abnormal loss
(b)	Monopoly market	(b)	Long run earn only normal profit
(c)		(c)	In long run super normal profit
(d)		(d)	In short run earn loss

a).....B

b).....C

CBSE WORKSHOP

Teachers: :Vandana Sharma Name of the Topic: Forms of market

Shubh Joshi

Simmy

Sudha Chauhan

Deepa k. John

Margret James

Ritu Pandey

Date: 31/08/19

Match the following

Remembering

1.

(a)	A firm under perfect competition	(a)	Price maker
(b)	A firm under monopoly competition	(b)	Price taker
a(c)		(c)	Govt. decides the rate
(d)		(d)	Buyers decides the rate

a).....B

b).....A

2.

(a)	Railways	(a)	Is an example of monopolistic market
(b)	BMW	(b)	Is an example of perfect competition
(c)		(c)	Is an example of monopolistic market
(d)		(d)	Is an example of oligopoly market

a).....B

b).....D

Understanding

3.

(a)	In case of perfect competition	(a)	A firm is able to charge higher price
(b)	In case of monopoly market	(b)	Seller use advertisement
(c)		(c)	A firm is able to charge uniform price
(d)		(d)	Small number of big firms

a).....C

b).....A

Application

4.

(a)	In perfect competition	(a)	$AR < AC$
(b)	In monopoly competition	(b)	$AR = AC$

(c)		(c)	$AD=AS$
(d)		(d)	$AR>Ac$

a).....B

b).....D

5.

(a)	In perfect competition	(a)	Relatively more elastic
(b)	In monopoly competition	(b)	Relatively less elastic
(c)		(c)	Perfectly elastic
(d)		(d)	Cannot be determined

a).....B

b).....C

6.

(a)	Perfect competition demand curve	(a)	Vertical straight line
(b)	In monopoly demand curve	(b)	Horizontal straight line
(c)		(c)	Slopes downward
(d)		(d)	Slopes upward

a).....B

b).....C

Analysis

7.

(a)	Degree of price in perfect competition	(a)	Full control over price
(b)	Degree of price in monopoly	(b)	No control over price
(c)		(c)	Partial control over price
(d)		(d)	Very less control over price

a).....b)

b)..... A

8.

(a)	$AR=AC$	(a)	Extra-normal profits
(b)	$AR>AC$	(b)	Normal profits
(c)		(c)	Loss
(d)		(d)	Negative relation

a).....B

b).....A

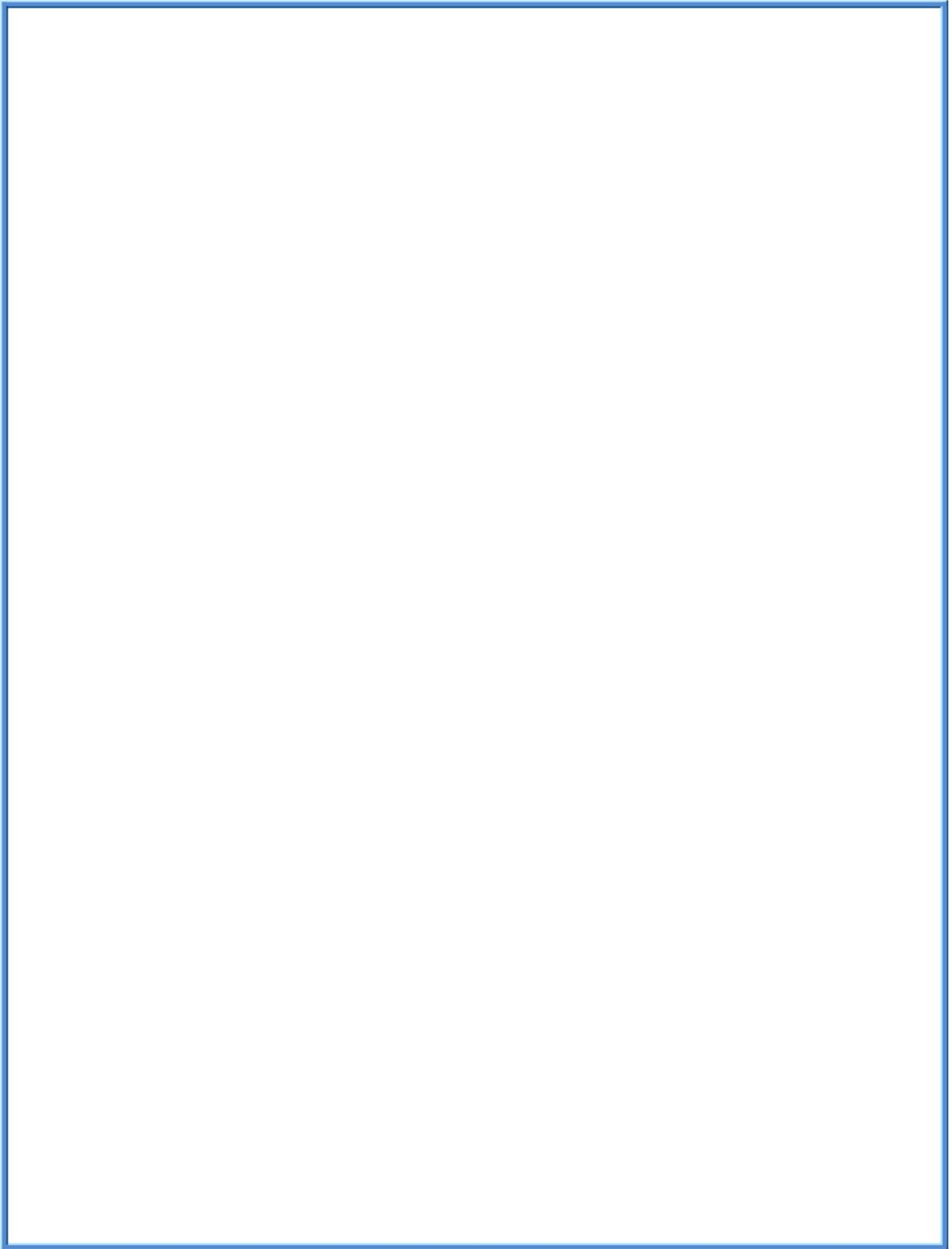
Understanding

9.

(a)	Price discrimination	(a)	Same price for different goods
(b)	Product differentiation	(b)	Selling goods which are perfect substitute
(c)		(c)	Different price for the same goods
(d)		(d)	Selling goods which are close substitutes

a).....C

b).....D



CBSE WORKSHOP

Teachers: :Vandana Sharma Name of the Topic: Forms of market

Shubh Joshi

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Sudha Chauhan

Deepa k. John

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Ritu Pandey

Date: 31/08/19

Fill in the blanks

1. In perfect competition there areno. of firms or sellers(**large**)R
2. A Situation of market in which there is a single seller is known as.....(**monopoly**) R
3. A distinct feature of monopolistic competition is.....(**product differentiation**) R.
4. Oligopoly is a form of market in which there are.....big firms(**few**) R.
5. Under perfect competition price is determined by.....(**market**)U.
6. In perfectly competitive market there is nocost(**selling**)U.
7. The shape of demand curve under monopolistic competition is.....(**downward sloping**)U.
8. A price maker firm refers to that firm which has complete control overof the product in the perfectly competitive market(**price**)U.
9. The market in which characteristics of both perfect competition and monopoly are there is known as (**monopolistic competition**)APPLICATION.
10. Inform of market if the firm increases the price of the product,a rival firm may not increase it, leading to a loss of market(**oligopoly**)APPLICATION.
11. Inform of market difference between firm and industry disappears .(**monopoly**)APPLICATION.
12. Automobile industry is an example ofform of market(**oligopoly**)APPLICATION.
13. Inform of market new product means secure patent rights (**monopoly**)
14. Cold drink industry is an example ofform of market(**monopolistic competition**)APPLICATION.
15. A firm under.....may earn super normal profit even in the long run(**monopoly**)E.
16. Thecurve and industry demand curve are the same in case of perfect competition(**AR**) E.

17. Downward sloping demand curve characteristic of monopolistic competition is similar to..... form of market(**monopoly**)E.
18. A firm underwill not lower the price to increase its sales(**perfect competition**) E.
19.fixes price on the basis of elasticity of demand for his product (**monopolist**) E.
20. Under both monopolistic competition and monopoly ARMR (> greater than) E.
21. When all firms decide to avoid competition through a formal agreement in oligopoly market it is known asoligopoly (**collusive**)CREATIVE.
22. A pricefirm is found in perfect competition market situation (**taker**)R.
23. The shape of demand curve under perfect competition isX axis (**parallel**)R.
24. Price of product never changes incompetition market situation (**perfect**)U.
25. Firms demand curve is indetermined undermarket condition (**oligopoly**)U.
26. A firm undercannot earn abnormal profit in long run (**monopolistic competition**)APPLICATION.
27. The output under perfect competition isthan monopolistic competition (**higher**)ANALYSIS.

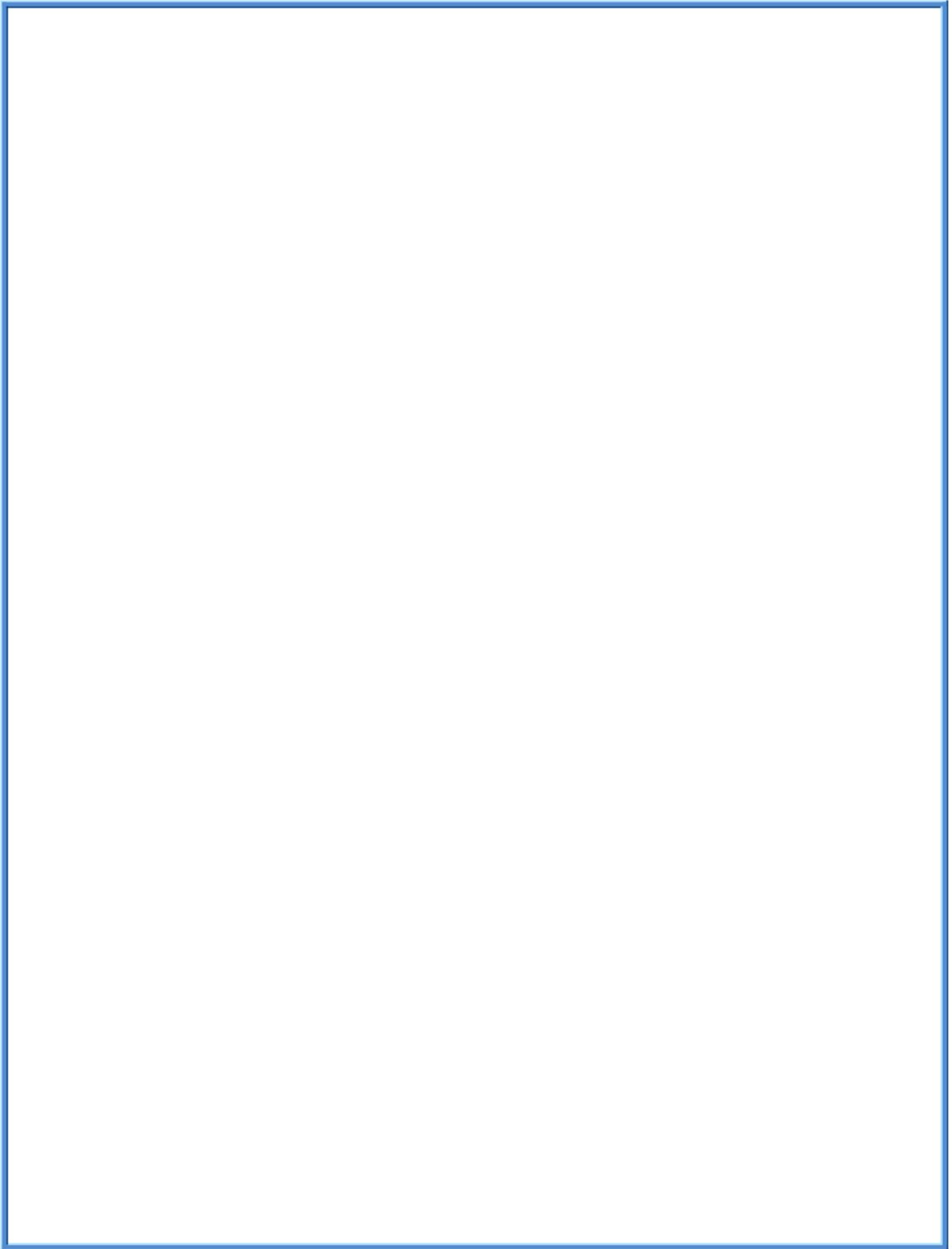
Multiple choice questions

REMEMBERING

1. Equilibrium price is a situation in which:
- (a) Demand > supply (b) Demand < supply
(c) Demand = supply (d) Demand and supply both inelastic (c)
2. The price where market demand is equal to market supply is:
- (a) Excess demand (b) Excess supply
(c) Equilibrium price (d) Equilibrium quantity (c)

UNDERSTANDING

3. In case of excess demand market price is :
- (a) Greater than equilibrium price (b) Less than equilibrium price
(c) Equal to equilibrium price (d) Not defined (b)
4. Excess supply refers to a situation in which:
- (a) Market price = equilibrium price (b) Market price > equilibrium price
(c) Market < equilibrium price (d) Supply increase but demand remain constant
5. Maximum price ceiling leads to a situation of:
- (a) Excess demand (b) Deficient demand
(c) Either a and b (d) Neither a and b (a)
6. Equilibrium price and quantity change when:
- (a) Demand change (b) Supply change
(c) Both a and b (d) Neither a and b (c)
7. Suppose that supply of cameras will increase due to increase in no of manufacturing units what situation will occur?
- (a) Equilibrium price will decrease and equilibrium quantity of cameras will increase
(b) Both Equilibrium price and equilibrium quantity of camera will decrease
(c) Both Equilibrium price and equilibrium quantity of camera will increase
(d) Equilibrium qty. of cameras exchanged will decrease
(a)



8. What is equilibrium quantity:
- (a) Quantity demanded, and quantity supply is greater than equilibrium price
 - (b) Quantity demanded, and quantity supply is less than equilibrium price
 - (c) Quantity demanded and quantity supply at equilibrium price
 - (d) Quantity demanded and quantity supply at pre-determined equilibrium price (c)
9. Equilibrium price in a perfectly competitive market is determined by:
- (a) Each individual firm for its own product (b) Few big firm
 - (c) A group of firms (d) All the firms taken together (d)
10. Price ceiling is imposed on:
- (a) Essential goods. (b) Buffer Stock
 - (c) Luxury Goods (d) Comfort Goods. (a)
11. If Government sells a commodity at a price less than equilibrium price to the poor, it is known as:
- (a) Rationing (b) Minimum Support Price
 - (c) Price Floor (d) Subsidy (a)
12. If the market price is above the equilibrium price, it is:
- (a) Excess Demand (b) Excess Supply
 - (c) Price Ceiling. (d) Price Floor. (b)
13. Under what condition equilibrium price will remain same:
- (a) Quantity Demanded Rises.
 - (b) Quantity Supply Rises.
 - (c) Both Quantity Demanded and Quantity Supplied Rises.
 - (d) Both Quantity demanded and supplied remains same. (d)
14. An increase in demand leads to:
- (a) fall in both equilibrium price and equilibrium quantity.
 - (b) Fall in equilibrium quantity and rise in equilibrium Price

- (c) Rise in equilibrium price and fall in equilibrium quantity.
- (d) Rise in Both equilibrium price and equilibrium quantity.
(d)
15. How are equilibrium price and quantity and quantity affected when income of the consumer increases?
- (a) Equilibrium Price and quantity Both Rises.
- (b) Equilibrium Quantity and Price do not change.
- (c) Equilibrium Quantity Rises and Equilibrium Price Falls.
- (d) Equilibrium Quantity falls and equilibrium Price falls.
(a)
16. How will a fall in price of tea affect equilibrium price of coffee?
- (a) Equilibrium price of coffee will fall.
- (b) Equilibrium price of Coffee will Rise.
- (c) Equilibrium price of coffee will remain unchanged.
- (d) Equilibrium price may rise or fall (a)
17. Equilibrium price in perfect Competition is determined by:
- (a) Demand (b) Supply
- (c) Both (a) and (b). (d) Neither a nor b ©
18. Which of the following is true?
- (a) Equilibrium Price > support Price. (b) Control Price > Equilibrium price.
- (c) Equilibrium price = Control Price. (d) Equilibrium price < support price (d)

APPLYING

19. To save the interest of farmer govt. should introduce the policy of:
- (a) Minimum support price (b) Price ceiling
- (c) Provide subsidies (d) Reduce indirect taxes (a)
20. Market is in equilibrium due to increase in taxation of raw material supply decreases, what will happen to equilibrium price:
- (a) Increase (b) Decrease
- (c) Constant (d) May increase or decrease (a)

21. Market of a good is in equilibrium, what change will take place in equilibrium quantity when market demand increases:
- (a) Increase (b) Decrease
(c) Constant (d) Both a and b (a)
22. Increase in supply, demand remaining unchanged creates a situation of:
- (a) Deficient demand (b) Excess supply
(c) Supply is equal to demand (d) No change (b)
23. How does a cost saving technologies progress affect the market price and quantity?
- (a) Increase in equilibrium price and decrease in quantity supplied
(b) Decrease in equilibrium price and increase in equilibrium quantity
(c) No change in demand and supply
(d) Decrease in market price and increase in quantity supplied (b)
24. Any departure of price from the equilibrium price must, through a series of actions and reactions, result in :
- (a) New higher equilibrium price (b) New lower equilibrium price
(c) Back to the given equilibrium price (d) Both (a) and (b) (c)

ANALYSIS

25. There will be no change in equilibrium price when:
- (a) both demand and supply increase in same ratio
(b) Demand increase greater than increase in supply
(c) Demand increase less than increase in supply
(d) Demand increase but supply remain constant (a)
26. Which of these will be the immediate effect on decrease in supply
- (a) leads to excess demand (b) encourages competition among buyer
(c) leads to excess supply (d) Higher price leads to contraction of demand (a)
27. There will be no change in equilibrium price even when supply of a commodity increase when:
- (a) Demand is unitary elastic (b) Demand is more elastic
(c) Demand less elastic (d) Demand is perfectly elastic (d)

28. Fixation of minimum wage below the equilibrium wage rate leads to:

- | | |
|-------------------------|------------------------|
| (a) Unemployment | (b) Overemployment |
| (c) Neither (a) nor (b) | (d) Either (a) and (b) |
| | (c) |

True/ False

1. In case of excess demand market price is always greater than equilibrium price (T)
2. There will be no change in equilibrium price if both demand and supply increases in the same direction (T)
3. To save the interest of the farmers govt.of India provide MSP (T)
4. Both equilibrium price and quantity rise when there is a right ward shift in demand (T)
5. Price ceiling refers the maximum price fixed by the govt.at which sellers can legally charge for a good. (T)
6. Buffer stock is an important tool in the hands of govt.to ensure price floor. (T)
7. Both demand and supply play equal role in determination of shortrun price under perfect competition. (F)
8. When demand is perfectly elastic there will be no change in equilibrium price whether supply increases or decreases. (T)
9. Price affects demand and demand affects price. (T)
10. A black market is a market in which controlled price goods are sold illegally at price higher than price fixed by govt (T).
11. An increase in cost of production leads to decrease in supply of a commodity that leads to fall in equilibrium price. (F)
12. Under perfect competition market price is determined by the firm; (F)
13. In the situation of excess demand market price increases. (F)
14. If in the market supply increases due to favourable govt. policy and demand remains unchanged, equilibrium price will be reduced. (F)
15. Hoarding and black marketing are consequence of price ceiling. (T)
16. Government purchases the surplus to store or sell it at subsidised price in buffer stock (T)
17. Fixation of minimum wage below the equilibrium wage rate leads to unemployment (F)
18. A simultaneous "decrease" in both demand and supply ultimately result in decrease in equilibrium price. (F)
20. At equilibrium, market demand is greater than market supply. (F)

21. Market demand increases when supply is perfectly elastic, the equilibrium quantity increase. (T)
22. Excess demand means market demand is greater than market supply. (T)
23. when income of consumers increases market supply will shift rightward. (T)
24. By the rise in the price of substitute goods market demand will decrease. (T)
25. By the latest census of the government the population increases. The market demand of a good will increase. (T)
26. The price where market demand is equal to market supply is known as equilibrium price. (T)
27. When equilibrium price of a good is less than its market price, there will be competition among sellers. (T)
28. If at a price, market supply is greater than market demand, there will be "excess demand" for a commodity in the market. (F)
29. When demand is perfectly elastic and supply increase there will be no change in equilibrium price. (T)

Match the following

1. Ans:- a-c and b-a.

(a)	The impact of increase in the number of firms	(a)	Equilibrium price increases and equilibrium quantity decreases
(b)	The impact of increase in input price on the equilibrium price and quantity	(b)	Equilibrium price increases and no change in equilibrium quantity
(c)		(c)	Equilibrium price decreases and equilibrium quantity increases
(d)		(d)	Equilibrium price decreases and no change in equilibrium quantity

2. Ans:- a-c and b-a.

(a)	Buffer stock	(a)	Price ceiling
(b)	Rationing	(b)	Commodity price
(c)		(c)	Price floor
(d)		(d)	Market price

3. Ans:- a-b and b-a.

(a)	$Q_d = 200 - P$ & $Q_s = 50 + 2P$	(a)	Equilibrium price is 40 & equilibrium quantity is 160
(b)	$Q_d = 200 - P$ & $Q_s = 80 + 2P$	(b)	Equilibrium price is 50 & equilibrium quantity is 150
(c)		(c)	Equilibrium price is 50 & equilibrium quantity is 130
(d)		(d)	Equilibrium price is 45 & equilibrium quantity is 160

4. Ans:-a-a and b-c.

(a)	The number of consumer & the income of the consumer increases	(a)	Demand curve shift to right
(b)	Supply curve is perfectly inelastic	(b)	Demand curve shift to left
(c)		(c)	Very short run
(d)		(d)	Long run

5. Ans:-a-d and b-a.

(a)	Price ceiling leads to the situation	(a)	Excess supply
(b)	At price of Rs. 5 demand is 30 units and supply is 70 units, it is a situation of	(b)	Perfectly inelastic demand
(c)		(c)	Deficient supply
(d)		(d)	Excess demand

6. Ans:-a-b and b-a.

(a)	Perfect competition market	(a)	Complete control over the price
(b)	Monopoly market	(b)	No control over price
(c)		(c)	Differentiated product
(d)		(d)	selling cost

7. Ans:-a-d and b-a.

(a)	Market demand	(a)	Sum of supply by all producers
(b)	Market supply	(b)	Demand made by single consumer
(c)		(c)	Desired supply by producer
(d)		(d)	Sum of demand by all consumers

8. Ans:-a-c and b-b.

(a)	Price ceiling	(a)	No relation with market price
(b)	Floor price	(b)	Higher than prevailing market price
(c)		(c)	lower than prevailing market price
(d)		(d)	Equal to prevailing market price

9. Ans:-a-b and b-a.

(a)	Decrease in demand = decrease in supply	(a)	Increase in equilibrium price
-----	---	-----	-------------------------------

(b)	Decrease in demand < decrease in supply	(b)	No change in equilibrium price
(c)		(c)	Decrease in equilibrium price
(d)		(d)	Increase in equilibrium quantity

10. Ans:-a-b and b-a.

(a)	Minimum price fixation	(a)	Excess demand
(b)	Market price reaches below equilibrium	(b)	Excess supply
(c)		(c)	Increase in demand
(d)		(d)	Increase in supply

11. Ans:-a-b and b-c.

(a)	Increase in demand is greater than increase in supply	(a)	No change in equilibrium price
(b)	Increase in demand is less than decrease in supply	(b)	Equilibrium price increases
(c)		(c)	Equilibrium price decreases
(d)		(d)	Price may increase or decrease

12. Ans:-a-b and b-d.

(a)	Increase in supply	(a)	Equilibrium price increases
(b)	Excess supply	(b)	Equilibrium price decreases
(c)		(c)	Market price increases
(d)		(d)	Market price decreases

13. Ans:-a-a and b-b.

(a)	Excess demand	(a)	Contraction of demand & extension of supply
(b)	Excess supply	(b)	Extension of demand and contraction of supply
(c)		(c)	No change in demand and supply
(d)		(d)	Extension of demand and no change in supply

14. Ans:-a-b and b-d.

(a)	No change in equilibrium price	(a)	Demand < supply
(b)	No change in equilibrium quantity	(b)	Quantity demanded = quantity supplied
(c)		(c)	Quantity demand > quantity supplied
(d)		(d)	No change in demand and supply

15. Ans:-a-b and b-c.

(a)	Increase in demand < increase in supply	(a)	No change in equilibrium price
(b)	Increase in demand > increase in supply	(b)	Equilibrium price decreases
(c)		(c)	Equilibrium price increases
(d)		(d)	No change in equilibrium quantity

16. Ans:-a-c and b-b.

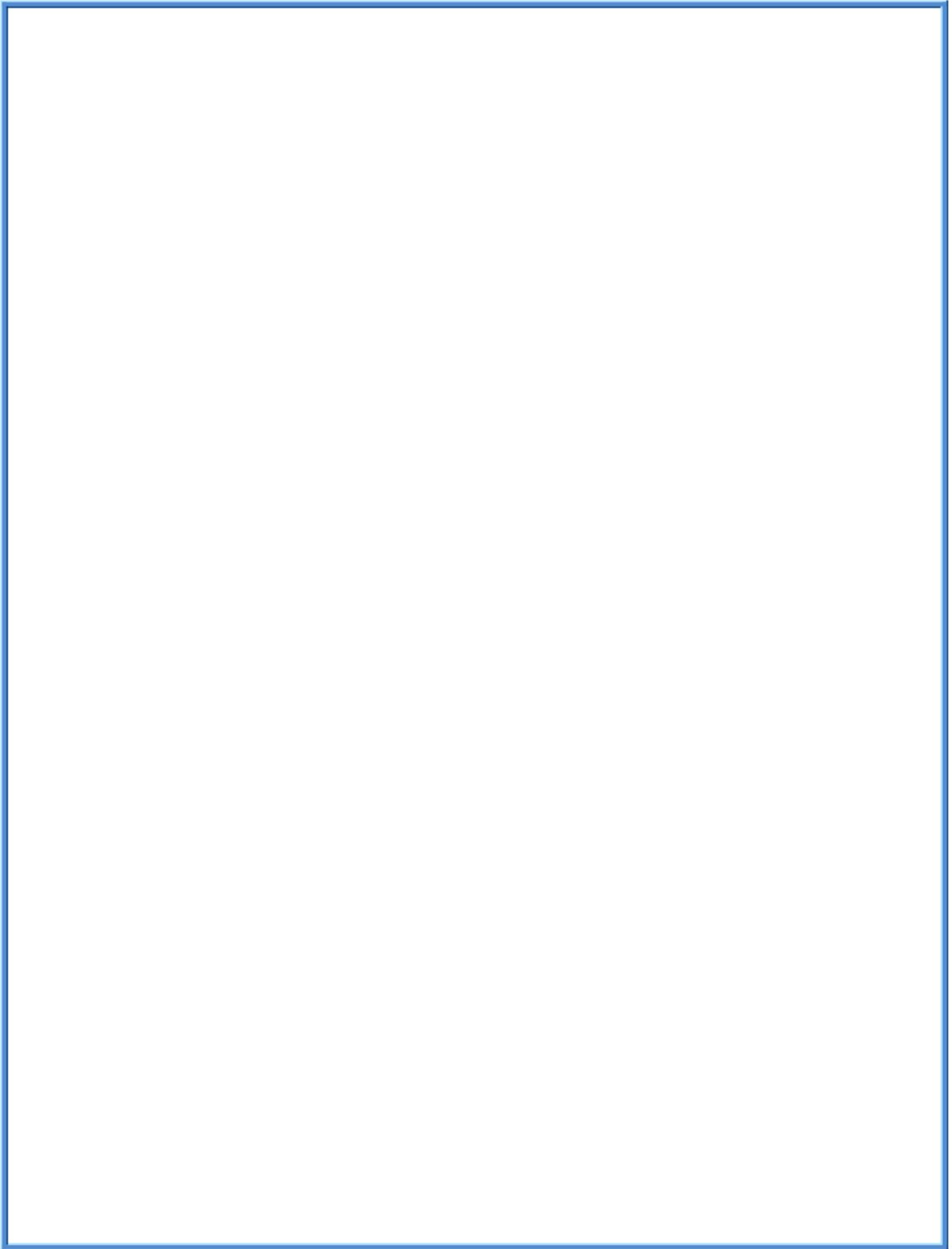
(a)	Increase in price of inputs	(a)	Demand increases
(b)	Fall in price of substitute goods	(b)	Demand of the other good decreases
(c)		(c)	Supply increases
(d)		(d)	Supply decreases

17. Ans:-a-b and b-d.

(a)	Fall in GST	(a)	Demand increases
(b)	Use of obsolete technology	(b)	Supply increases
(c)		(c)	Demand decreases
(d)		(d)	Supply decreases

18. Ans:-a-b and b-a.

(a)	Decrease in demand= increase in supply	(a)	No change in equilibrium price
(b)	Decrease in demand= decrease in supply	(b)	No change in equilibrium quantity
(c)		(c)	Equilibrium price increases
(d)		(d)	Equilibrium quantity increases



CBSE WORKSHOP

Teachers: Name of the Topic: Market Equilibrium and price determination Date: 31/08/2019

Elizabeth Varghese

Akshat Jain

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Fill in the blanks

1. Equilibrium occurs where demand **equals** supply.
2. With the rise in price of inputs, supply of commodity will **decrease**.
3. Excess demand arises when demand is **greater** than supply.
4. Equilibrium price **falls** due to fall in demand of the commodity.
5. Market price is **unchanged** when rise in demand is equal to rise in supply.
6. A situation of excess demand or excess supply is automatically corrected in **perfect competition** market.
7. Price ceiling often keeps the price of the commodity **lower** than its equilibrium price.
8. When income of the consumer rises his demand curve shifts to **right**.
9. Other things remaining equal, with increase in demand of commodity, its equilibrium price **rises**.
10. As fixed by government, minimum price of commodity is known as **floor price**.
11. As fixed by government, maximum price of commodity is known as **ceiling price**.
12. Excess demand refers to a situation when **quantity demanded** is more than the quantity supplied.
13. When fall in demand is greater than fall in supply, equilibrium price **falls**.
14. When rise in demand is greater than rise in supply, equilibrium price **rises**.
15. When there is an increase in supply and demand remains unchanged, equilibrium price **falls**.
16. Price ceiling refers to fixing the maximum price of a commodity at a level **lower** than the equilibrium price.
17. Minimum support price is also called **floor** price.

18. Price floor refers to fixing the minimum price of a commodity at a level **higher** than the equilibrium price.
19. Suppose consumer's taste shifts in favour of apples, as a result of this equilibrium quantity will **increase**.
20. If price is expected to rise in future, even with the rise in price in present time, demand will **rise**.
21. Ceiling price is always set **higher** than the prevailing market price.
22. Formation of cartels is a common feature of **oligopoly** market.
23. A monopoly firm earns **abnormal** profit in long run.
24. If market demand function is given as $Q_d = 25 - 2P$ and market supply as $Q_s = 3P$, then equilibrium price will be **15** units.
25. Under monopoly a firm is price **maker**.
26. If increase in demand is < than decrease in supply equilibrium price **risers**.

M C Q

1. The aggregate of data is called
 - (a) **Statistics**
 - (b) Editing
 - (c) Analysis
 - (d) Collection
2. The process of converting raw material into goods is called
 - (a) **production**
 - (b) investment
 - (c) saving
 - (d) exchange
3. Part of income that is not consumed is called
 - (a) investment
 - (b) **saving**
 - (c) consumption
 - (d) production
4. Which of the following is incorrect
 - (a) resources have alternative uses
 - (b) micro economics studies individual
 - (c) **all numbers are statistics**
 - (d) wants are repetitive
5. Which of the following indicates stages of statistical study
 - (a) **collection of data**
 - (b) understanding of data
 - (c) calculation of mean from the data
 - (d) memorizing the data
6. Mention the correct statistical statement
 - (a) Roses are beautiful
 - (b) **The mean salary of employees in an organisation is 10000/-**
 - (c) Marks scored by Rahul in economics is 65
 - (d) Statistical statements have universal application
7. Name the father of Economics
 - (a) **Adam Smith**
 - (b) Alfred Marshall
 - (c) Robbins
 - (d) Samuelson
8. Which of the following is the limitation of Statistics?
 - (a) Helps in understanding Economic problems
 - (b) Helps in intersectoral comparison
 - (c) **studies only quantitative facts**
 - (d) used for formulating economic policies
9. Which of the following is a quantitative data?
 - (a) beauty
 - (b) honesty
 - (c) sympathy
 - (d) **age**

10. Identify the normative statement
- (a) Indian economy is moving towards a recession
 - (b) **Free education should be given to the poor**
 - (c) Indian education system is not successful in producing sufficient qualified and technical persons
 - (d) GST is a major taxation reform introduced by the government of India
11. State the economic activity concerned with increasing the utility of goods and services
- (a) investment
 - (b) **production**
 - (c) consumption
 - (d) distribution
12. State the argument given in favour of economics as an art
- (a) Verification of Law
 - (b) Systematic study
 - (c) **Cause and effect relationship**
 - (d) practical application of knowledge
13. Name the random sampling method which can be used when population is heterogeneous in nature
- (a) convenient sampling
 - (b) **stratified sampling**
 - (c) quota sampling
 - (d) table of random numbers
14. A tours and travels company obtains information regarding tourism in Rajasthan from Rajasthan tourism development corporation. Name the category of data.
- (a) **External data**
 - (b) Exclusive data
 - (c) internal data
 - (d) primary data
15. During Elections news channels provide election coverage and try to predict the result. Which method of data collection is used here?
- (a) Random sampling
 - (b) non random sampling
 - (c) Census method
 - (d) **Judgement sampling**
16. Who are enumerators?
- (a) one who collects the data
 - (b) **one who compiles the data**
 - (c) one who analyses the data
 - (d) one who represents the data
17. Which of the following is a source of secondary data
- (a) questionnaire
 - (b) oral investigation
 - (c) personal interview
 - (d) **international publications**
18. Under which method of data collection local agents are appointed to collect the information

- (a) telephonic interview (b) **information from correspondents**
(c) indirect personal investigation (d) direct personal investigation
19. Under random sampling method each item of the universe has the following chance of being included in the sample
(a) **equal** (b) unequal
(c) zero (d) more than 1
20. Mention the sampling method in which personal bias is possible
(a) quota sampling (b) **purposive sampling**
(c) random sampling (d) stratified sampling
21. State the quickest method of collecting primary data
(a) telephonic interview (b) **mailed questionnaire**
(c) indirect personal investigation (d) direct personal investigation
22. Blood donation camps and free medical checkups are organised by NGO. Identify the nature of activities
(a) Economic activity (b) **Non-economic activity**
(c) parental activity (d) religious activity
23. Identify the macroeconomic variable
(a) **per capita income** (b) individual demand
(c) consumer's equilibrium (d) price determination
24. Which of the following is a part of micro economics
(a) general price level (b) national income
(c) inflation (d) **theory of demand**
25. A research organisation conducts a small scale survey before starting the main survey. Identify the possible objective
(a) **improving the organisation of the field work and training of field staff**
(b) to convert qualitative data into quantitative form
(c) to identify the universe
(d) to calculate first order averages
26. In how many years population census is conducted by the government of India
(a) 5 years (b) **10 years**
(c) 15 years (d) 6 years
27. Identify the incorrect statement for a questionnaire
(a) Questionnaire should not contain double negative questions
(b) **a polite covering letter should be sent to respondents**

- (c) a few subjective questions can be included
- (d) questions requiring calculations should be avoided

28. Primary data is preferred over secondary data when

- (a) time available is short
- (b) **accuracy is important**
- (c) sufficient finance is not available
- (d) sufficient man power is not available

CBSE WORKSHOP

Teachers: Name of the Topic: Introduction and collection of data

Date: 30/08/2019

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True/ False

	True	False
1. Scarcity and choice go hand in hand.	<input type="checkbox"/>	<input type="checkbox"/>
2. Data collected without any objective is called number.	<input type="checkbox"/>	<input type="checkbox"/>
3. Normative economics deals with how the economic problem should be dealt.	<input type="checkbox"/>	<input type="checkbox"/>
4. Secondary data is also called original data.	<input type="checkbox"/>	<input type="checkbox"/>
5. Statistics studies both qualitative and quantitative data	<input type="checkbox"/>	<input type="checkbox"/>
6. Statistics laws are perfectly accurate.	<input type="checkbox"/>	<input type="checkbox"/>
7. Tendulkar used long bat. This statement is a statistical statement.	<input type="checkbox"/>	<input type="checkbox"/>
8. Random sampling is also called probability sampling.	<input type="checkbox"/>	<input type="checkbox"/>
9. A questionnaire should start from more specific to general question.	<input type="checkbox"/>	<input type="checkbox"/>
10. Microeconomics studies data only at individual level.	<input type="checkbox"/>	<input type="checkbox"/>
11. Alternative use of resources is not one of the causes of problem of choice.		<input type="checkbox"/>
[F]		
12. Economic study has relation with human behaviour.	<input type="checkbox"/>	<input type="checkbox"/>
13. Government publications are sources of primary data.	<input type="checkbox"/>	<input type="checkbox"/>
14. If we use data collected by some other person it is called secondary data.	<input type="checkbox"/>	<input type="checkbox"/>

15. Mother cooking food at home is an economic activity. ☐ [F]
16. Approximation errors occur due to miscalculation. ☒ []
17. A drop of blood taken from the body of a patient is an example of population. ☐ [F]
18. Picking a card out of the deck is random sampling. ☒ []
20. Every item of the population has an equal chance of being selected. ☒ []
21. The questionnaire should be pretested before the final printing. ☒ []
22. Size of a sample can be greater than size of the population. ☐ [F]
23. The only source to collect data is secondary source. ☐ [F]
24. Non sampling errors are more serious than sampling errors. ☒ []
25. Private agencies are published source of secondary data. ☐ [F]
26. Stratified sampling studies by dividing the universe into different strata. ☒ []
27. In case of natural calamity the best method to collect data is questionnaire method. ☐ [F]
28. Mailing questionnaire method covers the widest area for data collection. ☒ []

Topic- Statistics introduction and collection of data

Match the following

Remembering

1.

(a)	The word Statistics was first used in	(a)	1851
(b)	The Statistics is concerned with	(b)	1749
		(c)	Aggregates of disorganised facts
		(d)	Aggregates of numerical data

Ans A-B, B-D

2.

(a)	Statistics is used by	(a)	Government
(b)	Statistics in Singular sense	(b)	Organisation of data
(c)		(c)	Is a method
(d)		(d)	Housewife

Ans – a- a, b-b

3.

(a)	Term Statistics is first used by	(a)	Paul A. Samulson
(b)	The cause of economic problem	(b)	Gott Fried Achenwall
(c)		(c)	Unemployment
(d)		(d)	Scarcity of resources

Ans- a-b, b-d

4.

(a)	Primary data collection	(a)	Direct personal interview
(b)	Secondary data	(b)	Publication of research scholar
(c)		(c)	National income estimates
(d)		(d)	News in news papers

Ans- a-a, b-d

5.

(a)	Main feature of qualitative data is	(a)	They help in quality
(b)	The study of man in the ordinary business of life was given by	(b)	Adam Smith
(c)		(c)	They describe attribute of single person or group
(d)		(d)	Alfred Marshall

Ans-a-c,b-d

6.

(a)	Primary data is	(a)	Free of cost
(b)	Secondary data is	(b)	Costly

(c)		(c)	Less Costly
(d)		(d)	Can't say.

Ans- a-b,b-c

7.

(a)	Merits of Questionnaire	(a)	Difficulty
(b)	Merits of indirect oral investigation	(b)	Less number of questions
(c)		(c)	Expert Opinion
(d)		(d)	Expensive

Ans-a-b,b-c

Understanding

8.

(a)	Quota Sampling is	(a)	Different Strata are formed
(b)	Stratified Sampling	(b)	Use of mailing
(c)		(c)	Public opinion surveys can be conducted
(d)		(d)	Where interview is conducted front to front.

Ans. a-c,b-a

9.

(a)	Primary data	(a)	Original
(b)	Secondary data	(b)	Already collected
(c)		(c)	External data
(d)		(d)	Tertiary data

Ans – a-a, b-b

10.

(a)	Census method	(a)	May or may not be economical
(b)	Sample data	(b)	Suitable in the wide area of enquiry
(c)		(c)	Where universe is homogenous
(d)		(d)	Where universe is heterogeneous

Ans- a-c, b-d

11.

(a)	Secondary data	(a)	NSSO
(b)	Quota sampling	(b)	Questionnaire
(c)		(c)	Public opinion survey
(d)		(d)	Different strata are formed

Ans- a-a, b-d

12.

(a)	Probability sampling	(a)	Random sampling
(b)	Sampling errors	(b)	Stratified sampling

(c)		(c)	Biased errors
(d)		(d)	Non response errors

Ans – a-a, b-c

13.

(a)	Questionnaire	(a)	Logically arranged
(b)	Merit of indirect investigation	(b)	Biased questions
(c)		(c)	Expert opinion
(d)		(d)	Inexpensive

Ans- a-a, b-d

14.

(a)	Economic Activities undertaken for	(a)	Service providers
(b)	Service holders are	(b)	Gainfully employed
(c)		(c)	Monetary gain
(d)		(d)	Who has a service

Ans-a-c,b-d

15.

(a)	Study of distribution Involves	(a)	Price, alternative views
(b)	Study of Consumption	(b)	Market Studies
(c)		(c)	GDP
(d)		(d)	Wages, profit ,interests.

Ans-a-d,b-a

16.

(a)	Statistics in plural sense means	(a)	Science of collecting, classifying and using data
(b)	Statistics in Singular Sense means	(b)	Data on demand
(c)		(c)	Numerical facts systematically collected
(d)		(d)	All data collected

Ans-a-c,b-a

Application based

17.

(a)	Collection of data involves	(a)	Presenting of data collected in various forms
(b)	Presentation of data involves	(b)	Standard deviation
(c)		(c)	Presenting of data
(d)		(d)	Data collected Systemtically.

Ans-a-d,b-a

18.

(a)	Statistics helps in	(a)	Increase in data
(b)	Statistics only deals with quantitative data	(b)	Condensing mass data

(c)		(c)	Statistics also deals with qualitative data
(d)		(d)	Decrease in data

Ans-a-b,b-c

19.

(a)	Functions of Statistics	(a)	Formulation of plans and policies
(b)	Importance of Statistics	(b)	Needs special expertise.
(c)		(c)	Collected for a pre-determined purpose.
(d)		(d)	Useful in economic Planning.

Ans- a-a, b-d

20.

(a)	Cluster Sampling	(a)	Causes large area
(b)	Purposive Sampling	(b)	Facilitates purpose of study.
(c)		(c)	Covers diverse features
(d)		(d)	Free of bias.

Ans-a-a,b-b

21.

(a)	Which statement is not an example of statistics	(a)	Affected by multiplicity of causes
(b)	Which statement is correct Regarding statistics	(b)	Average pocket allowance per month
(c)		(c)	Ramesh has two five rupee notes in his pocket
(d)		(d)	Only expressed in words.

Ans -a-c,b-a

Analysis based

22.

(a)	Probability Sampling method is	(a)	Snowball Sampling
(b)	Sampling error is	(b)	Stratified random sampling
(c)		(c)	Error arising due to defective sample size
(d)		(d)	Error arising in the processing of tabulation of data.

Ans-a-b,b-c

23.

(a)	With regards to distrust of statistics which one statement is not correct	(a)	Total utility
(b)	The best example of business activity is	(b)	Statistics is Rainbow of lies
(c)		(c)	Statistics expresses the facts in numbers.
(d)		(d)	Production

Ans -a-c,b-d

24.

(a)	Collected by Investigation	(a)	Primary data
(b)	Method by statistical Enquiry	(b)	Secondary data
(c)		(c)	Sample Method
(d)		(d)	Quantitative Method

Ans-a-a,b-b

Creative

25.

(a)	Analysis of poverty and population helps in	(a)	Decreases in poverty
(b)	Data in statistics	(b)	Number of People
(c)		(c)	Economic Facts in terms of number.
(d)		(d)	Forming of policies of Government.

Ans-a-d,b-c

26.

(a)	Data collected by environment department about emission of pollution level in various cities is	(a)	Editing of data
(b)	Crucial factor in secondary data is	(b)	Primary data
(c)		(c)	Authenticity
(d)		(d)	Raw data

Ans-a-b,b-c

27.

(a)	Which one indicates a stage of statistical study	(a)	Statistics law
(b)	In plural sense which is not a feature of statistics	(b)	Production
(c)		(c)	Only expressed in words
(d)		(d)	Analysis of data

Ans-a-d,b-c

28.

(a)	The process of converting raw material into goods is called	(a)	Investment.
(b)	Which one statement is incorrect	(b)	All numbers are statistics
(c)		(c)	Production
(d)		(d)	Resource have alternate uses.

Ans-a-c,b-d

Fill in the blanks

1. The persons from whom we get statistical information are known as.....
(Respondents) / (remembering)
2. An interview taken on telephone, as a source of data collection is called as
(telephone interview) / (remembering)
3. Primary data is based on hand information. (first) / remembering)
4. The difference between the actual value of characteristics of population and its estimated value is called
(sampling error) / (understanding)
5. In Method, a list of question to investigate is prepared and sent to each respondent by mail.
(mailing method) / (understanding)
6. Statistics present data in a simple form so data is easy to comprehend. (complex)/
(analysis)
7. data refers to the data which can be expressed in numerical terms. (quantitative) /
(analysis)
8. An... activity is an activity undertaken for earning money is return. (economics) /
(understanding)
9. Consumption is an economic process of use of various goods and services for the of
human wants.
(satisfaction) / (applying)
10. Refers to the shortage of the commodities available to satisfy to unlimited wants.
(scarcity) / (remembering)
11. Means division of national income among various FOPS as per there contribution.
(distribution) / (analysing)
12. All activity which are undertaken for value addition in raw material are (production) /
applying)
13.is the set of numbers for conveying specific information for better understanding.
(data) / (applying)
14. Social service rendered by an NGO to flood victims is a..... activity.(non-economic) / (analysis)
15. Economic problem is the problem of arising on account of facts that resources are scares
and wants are unlimited. (choice) / (understanding)
16. In sense statistic is method of colleting, classifying, presentation of data.
(singular) / (understanding)
17. Aggregates of facts is a feature of statistics in Sense. (plural) / (remembering)

18. Data collected by NSSO is an example of source of data. (primary) / (applying)
19. In..... sampling method, is every items of universe has equal chance to be selected.
(random) / (creativity)
20. Under Method, the person himself fills the schedule after taking information from respondents.
(enumerators) / (creativity)
21. Reports issued by IMF, RBI regarding NPA is a example of source of secondary data.
(published) / (creativity)
22. Data collected by government schools for self use is included in sources of data.
(unpublished) / (creativity)
23. The population is divided into different groups according to different features in Sampling.
(quota) (creativity)
24. Police collecting information from the accident site is an example of.....
(direct personal investigation) / (creativity)
25. A document which is sent to people containing list of questions is called
(questionnaire) / (applying)
26. Information collected by press reporters from general public regarding an accident is an example of
(indirect oral investigation) / (analysis)
27. There is zero percent chance of errors in method of collecting information.
(direct personal interview) / (understanding)
28. In, term of expenses data is very expensive to collect. (primary) / (creativity)
29. In convenience sampling, sampling is done by..... in such manner that suits his convenience.
(investigator) / (creativity)

M C Q

1. Classification of data on the basis of time period is called;
(a) Geographical classification
(b) **Chronological classification**
(c) Qualitative classification
(d) Quantitative classification remembering
2. In a series the no. of times an item occurs is known as:
(a) Number
(b) Class frequency
(c) **Frequency**
(d) Cumulative frequency

Remembering

3. Which diagram shows total value as well as part values of a set of data:
(a) Bar diagram
(b) **Sub divided bar diagram**
(c) Histogram
(d) Pie chart
4. The principal component of a table is:
(a) **Table number**
(b) Stub
(c) Title
(d) Caption
5. Ogives can be helpful in locating graphically the--
(a) Mean
(b) **Median**
(c) Mode
(d) Mid value
6. Bar diagram is a:
(a) One dimensional diagram
(b) Diagram with no dimensions
(c) **Two dimensional diagram**
(d) Pie diagram
7. Diagram which shows total value of a set of data simultaneously are known as:
(a) **Percentage bar diagram**
(b) Differential bar diagram
(c) Derivation bar diagram
(d) Multiple bar diagram

Understanding

8. Identify the upper limit of the class: 20-25
(a) 20
(b) 22.5
(c) **25**
(d) 27.5
9. Calculate the mid value of the class : 20-40
(a) 20
(b) 40
(c) **30**
(d) 25
10. A Histogram is a graphical presentation of a frequency distribution of a-

- (a) Individual series (b) **Continuous series**
 (c) Discrete series (d) Raw data
11. Data represented through arithmetic line graph help in understanding;-
 (a) **long term trend**(b) cyclicity in data (c) seasonality in data
 (d) quantitative classification
12. What is the shape of "Less than ogive":
 (a) **Rising upward** (b) Falling downward
 (c) Parallel to X axis (d) Parallel to Y axis
13. Among the following which one is drawn by joining the mid points of all top of a Histogram :
 (a) **Frequency Polygon** (b) bar diagram
 (c) less than ogive (d) more than ogive
14. Which part of a table contains actual data
 (a) **Body of the table** (b) Columns
 (c) Rows (d) Title
15. Data represented through a histogram can help finding graphically-
 (a) Mean (b) Median
 (c) **Mode** (d) Range

Application

16. The point where "less than ogive" & "more than ogive" intersect each other is known as:
 (a) **Median** (b) Mode
 (c) Mean (d) cumulative frequency
17. The suitable diagram to represent the data relating to the family expenditure on different items by a family:
 (a) **Pie diagram** (b) Frequency
 (c) Histogram (d) Raw data
18. Total degrees in pie chart is:
 (a) **360** (b) 180
 (c) 90 (d) 45
19. In case of less than ogive the cumulative total tends to
 (a) **Increase** (b) Remains constant
 (c) Decrease (d) May increase or decrease
20. The part of a table that distinguishes one table from another:

- (a) Title (b) caption
(c) **Table number** (d) stub
21. Class interval should be equal in all the classes in--
(a) **Histogram** (b) Mean
(c) Median (d) Mode
22. For the graphical representation of yearly rainfall which diagram cannot be used:
(a) **Pie diagram** (b) Histogram
(c) Bar diagram (d) Polygon
23. Which of the following equation is correct:
(a) $S = R + N$ (b) $S = R \times S$
(c) $S = R - N$ (d) **$S = R \div S$**
24. Change in IQ level of students of class 10 is;
(a) Variable (b) Frequency
(c) **Attribute** (d) Raw data Analysis and evaluation
25. Which of the following is a shape of frequency distribution curve:
(a) A shaped (b) B shaped
(c) U shaped (d) **Inverse U shaped**

Analysis and evaluation

26. Graphs are always drawn with reference to-
(a) Origin (b) **Scale**
(c) Proportion (d) Data
27. Number of firms producing bicycles in Punjab region is an example of which classification;
(a) **Spatial classification** (b) Qualitative classification
(c) Chronological classification (d) Quantitative classification
28. The other name of Pie diagram is:
(a) **Circular diagram** (b) Bar diagram
(c) Histogram (d) Polygon

CBSE WORKSHOP

Teachers: :Vandana Sharma Name of the Topic: organisation and presentation of data

Shubh Joshi

Simmy

Sudha Chauhan

Deepa k. John

Margret James

Ritu Pandey

Date: 30/08/19

True False

Remembering

1. Bar diagrams are those diagrams in which data are presented in the form of bars or rectangles

[T] []

3. Bars is the bar diagram equidistance from each other [T] []

8. Graphic presentation to identify correlation between the variables. [T] []

16. The title of table must be provided at the bottom center of the table. [] [F]

17. In case of discrete variable data are expressed in fraction form [] [F]

24. Width of rectangle in histogram should be equal. [T] []

Application

2. In pie diagram , absolute values of the series are connected with cumulative value.[] [F]

4. Positively skewed curves have their tail more spread towards right. [T] []

11. One variable graph not necessary shows the value of one variable with respect to some time period.. [] [F]

12. When a curve is drawn based on a series when there are two classes with highest frequency is called U shaped curve . [] [F]

14. Percentage bar diagram present only part values of a set of data [] [F]

18. Mid value is the average value of upper and lower limits. [T] []

21. Presentation of population on the basis of gender falls under the category of qualitative classification.

[T] []

25. Median of a frequency distribution cannot be known from the ogives. [] [F]

26. Mode of a frequency distribution can be known graphically with the help of histogram.

[T] []

Understanding

5. Histogram is drawn only for equal class interval. [T] []
6. Bar diagram can be drawn only vertically on the axis. [] [F]
7. Histogram can be constructed only with the help of a continuous series. [T] []
10. Inclusive method exclude the upper limit in the class interval. [] [F]
13. In chronological classification the data are classified into geographical location. [] [F]
15. Only integral values are taken as continuous variable. [] [F]
20. Commulative frequency is the frequency of a class . [] [F]
23. In than ogive we begin from lower limit of the first class interval. [T] []
27. Ogive can be helpful in locating mean. [] [F]
28. For small data textual presentation serves the purpose better [T] []

Analysis and Evaluation

9. In the third quadrant the values of both X and Y are negative. [T] []
22. The area is taken into consideration for presenting data in pie diagram. [] [F]

MATCH THE FOLLOWING

REMEMBERING

1.

(a)	Quantitative classification	(a)	Locational difference
(b)	Chronological classification	(b)	Height, weight, income
(c)		(c)	On the basis of time
(d)		(d)	On the basis of attributes

Ans- a-b,b-c

2.

(a)	Mid value of the series	(a)	Upper limit is excluded
(b)	Open end series	(b)	Upper limit is included
(c)		(c)	Lower limit of first class is missing
(d)		(d)	Average of the two limits

Ans: a-d, b-c

3.

(a)	Difference between largest and smallest observations	(a)	Mid value
(b)	Difference between upper limit and lower limit	(b)	Range
(c)		(c)	Cumulative frequency
(d)		(d)	Class size

Ans: a-b, b-d

4.

(a)	Variable	(a)	Prospects with different values
(b)	frequency	(b)	Prospects with similar values
(c)		(c)	Prospects with different

			repetitions
(d)		(d)	Prospects with similar repetitions

UNDERSTADING

5.

(a)	Frequency array	(a)	Individual series
(b)	Data are listed singly	(b)	Discrete series
(c)		(c)	Continuous series
(d)		(d)	Mid value series

Ans: a-b, b-a

6.

(a)	Data of characteristics of population	(a)	Chronological classification
(b)	Data of GDP growth rate	(b)	Quantitative classification
(c)		(c)	Manifold classification
(d)		(d)	Simple classification

Ans: a-c, b-a

7.

(a)	Median	(a)	Intersection of less than and more than ogives
(b)	Mid point	(b)	Sum of upper limit and lower limit
(c)		(c)	Frequency polygon
(d)		(d)	Average of upper limit and lower limit

Ans: a-a, b-d

8.

(a)	Presentation in rows and columns	(a)	Textual representation
(b)	Presentation through ogives	(b)	Tabular representation

(c)		(c)	Graphical presentation
(d)		(d)	Pie diagram

Ans: a-b, b-c

APPLICATION

9.

(a)	Angle made by 50 % of a variable is	(a)	90 degree
(b)	Angle made by 70% of a variable is	(b)	180 degree
(c)		(c)	270 degree
(d)		(d)	360 degree

Ans:a-b, b-c

10. Find the percentage of expenditure

(a)	If 4000 out of 16000 spent on housing	(a)	25%
(b)	If 8000 out of 16000 spent on housing	(b)	30%
(c)		(c)	50%
(d)		(d)	75%

Ans: a-a, b-c

11.

(a)	Range of 10, 16, 12, 8 and 15 is	(a)	16
(b)	Mid value of 19 and 29 is	(b)	8
(c)		(c)	23.5
(d)		(d)	24

Ans: a-b, b-d

12. Identify the exclusive series of the following:

(a)	10-19, 20-29, 30-39	(a)	10-20, 20-30, 30-40
(b)	5-9, 10-14, 15-19	(b)	4.5-9.5, 9.5-14.5, 14.5-19.5
(c)		(c)	9.5-19.5, 19.5- 29.5, 29.5-39.5
(d)		(d)	5-10, 10-15, 15-20

Ans: a-c, b-b

ANALYSIS AND EVALUATION

13.

(a)	Raw data is made comprehensible by	(a)	Organisation of data
(b)	Organised data is made comprehensible by	(b)	Classification of data
(c)		(c)	Presentation of data
(d)		(d)	Collection of data

Ans: a-b, b-c

14.

(a)	Frequency polygon can be derived from	(a)	Bar diagram
(b)	Median can be obtained from	(b)	Histogram
(c)		(c)	Pie diagram
(d)		(d)	Ogive

Ans:a-b, b-d

15.

(a)	Components of expenditures can be represented by	(a)	Time series graph
-----	--	-----	-------------------

(b)	Growth rate of GDP in last five years	(b)	Histogram
(c)		(c)	Pie diagram
(d)		(d)	Frequency curve

Ans:a-c, b-a

16.

(a)	In inclusive series	(a)	Lower limit of same class as upper limit of next class
(b)	In exclusive series	(b)	Lower limit is different from upper limit of next class
(c)		(c)	Lower limit is same as mid point
(d)		(d)	Lower limit is different from mid point

Ans:a-a, b-b

FILL UPS

REMEMBERING

1. To arrange collective data into different groups or classes is called _____.
(classification)
2. _____ classification is based on time. (Chronological)
3. _____ is the point or value taken between two series. (mid value)
4. _____ refers to how many times an observation occurs in given time.
(frequency)
5. A class is a group of values having two ends called _____. (class limits)
6. _____ is the last part of table. (footnotes)
7. A systematic presentation of numerical data in rows and columns is called _____. (tabulation)

UNDERSTANDING

8. Upper limit of a class interval is included in _____ series. (exclusive)
9. Height of the student is a _____ variable. (continuous)
10. Number of students in your class is a _____ series. (discrete)
11. If bar diagram is one dimensional diagram then _____ is a two dimensional diagram. (Histogram)
12. The value of _____ can be obtained by the intersection of two ogives. (median)
13. A diagram where the length and the width matters is called _____ diagram. (one dimensional)
14. _____ diagram is not drawn with the absolute values of the variable. (Pie)

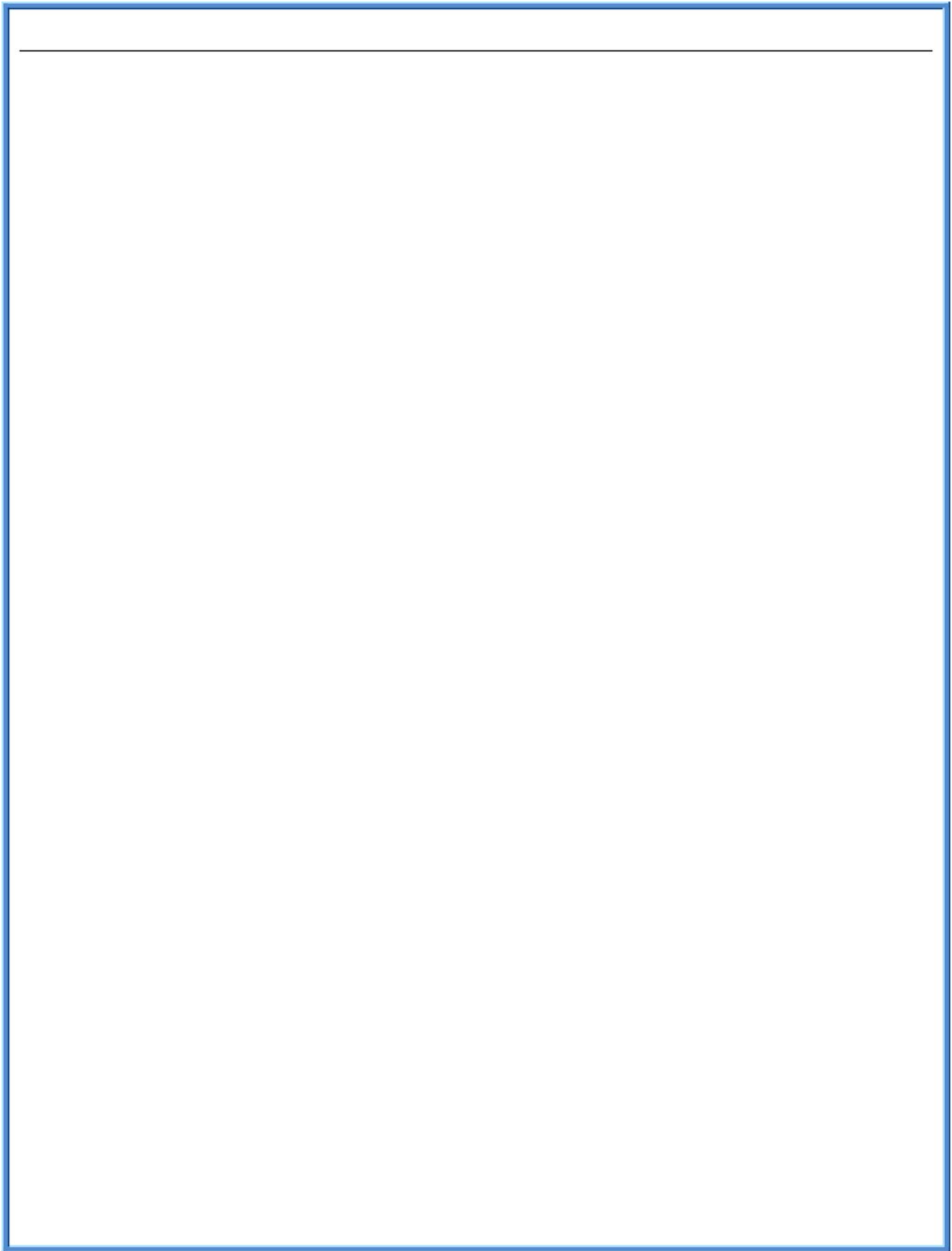
APPLICATION

15. Height of the students can be represented by _____ diagram. (bar diagram)

16. Components of cost in a factory can be better represented by _____ diagram.
(Pie)
17. _____ line graph can be a suitable method to represent inflation rate in India for last several years. (Arithmetic)
18. Sales and advertisement expenditure of 20 companies can be easily shown _____ frequency distribution. (bivariate)
19. Weight of students in an unorganised form is considered as _____. (raw data)
20. A distribution of population of India is known as _____. (manifold classification)
21. Assessment of the students in different sessions is shown by _____.
(Histogram)

ANALYSING AND EVALUATING

22. Under inclusive series, _____ is not the lower limit of next class interval. (upper limit)
23. In _____ than cumulative series, frequencies are added for subsequent variables.
(less)
24. The spatial classification takes into considerations, data of different _____.
(regions)
25. Discrete series is _____ frequency distribution. (ungrouped)
26. The graphical presentation of cumulative series can be done with _____. (ogives)
27. The percentage of a variable is represented through _____ diagram. (percentage bar)
28. Multiple variables are graphically represented through _____ bar diagram.
(multiple)



M C Q

REMEMBERING

1. Direct method to calculate mean for an ungrouped data is
 - (a) $\frac{\sum X}{N}$
 - (b) $A + \frac{\sum d}{N}$
 - (c) $A + \frac{\sum d'}{N} \times i$
 - (d) $\frac{N+1}{2}$
2. What is the sum of all observations divided by the number of observations called?
 - (a) **Arithmetic mean**
 - (b) Median
 - (c) Mode
 - (d) mean deviation
3. The sum of deviations of the observations of arithmetic mean is always
 - (a) minimum
 - (b) **Zero**
 - (c) one
 - (d) Maximum
4. What do we call measures which divide the series into four equal parts?
 - (a) mean
 - (b) **quartiles**
 - (c) median
 - (d) mode
5. Coefficient of range can be defined as
 - (a) **L-S/L+S**
 - (b) L+S/L-S
 - (c) L+S/2
 - (d) L-S/2
6. The standard deviation is always taken from
 - (a) Median
 - (b) Mode
 - (c) **Mean**
 - (d) Quartile
7. The Inter Quartile Range include the
 - (a) First 50% of items
 - (b) Central 50% of the items
 - (c) Last 50% of the items
 - (d) Last 25% of the items

UNDERSTANDING

8. Median can be measured with the help of which graphical presentation?
 - (a) less than ogive
 - (b) more than ogive
 - (c) **both (a) & (b)**
 - (d) histogram
9. The raw data needs to be arranged in _____ to get any positional values.
 - (a) ascending order
 - (b) descending order
 - (c) continuous series
 - (d) **either (a) or (b)**

10. Which of the measures of central tendency is based on the 50% of the central values.

(a) mean	(b) median
(c) mode	(d) lower quartiles
11. To know the average production of a factory which measure of the calculation will be used?

(a) mean	(b) mode
(c) median	(d) quartiles
12. Maximum and minimum temperature is the example of

(a) Median deviation	(b) Range
(c) Quartile range	(d) Mean deviation
13. Which one is the most satisfactory scientific method of dispersion?

(a) Mean deviation	(b) Standard deviation
(c) Quartile deviation	(d) Inter quartile range
14. Identify the graphical measure of dispersion.

(a) Less than ogive curve	(b) Lorenz curve
(c) More than ogive curve	(d) Time series graph
15. Which is the relative measure of dispersion?

(a) Range	(b) Mean deviation
(c) Coefficient of S.D	(d) Standard deviation

APPLICATION

16. If arithmetic mean is 30 and mode is 15 median will be _____

(a) 25	(b) 10
(c) 22	(d) 15
17. Arithmetic mean of the observations 9,8,27,36 and 45 is

(a) 18	(b) 25
(c) 36	(d) 50
18. The class mark of 30 – 40 will be _____

(a) 32	(b) 35
(c) 37.5	(d) 38

APPLYING

19. Find out C.V if the sum of 10 values is 100 and sum of their squares is 1090

(a) 104	(b) 401
(c) 10.4	(d) 1.04
20. Calculate range from the following data: 4, 7, 8, 53, 46, 77, 1, 5, 13

- (a) 77 (b) **76**
(c) 01 (d) 67

21. Estimate the coefficient of Q.D. if $Q_3 = 50$, $Q_1 = 20$

- (a) 43 (b) **0.43**
(c) 4.3 (d) 430

ANALYSIS

22. Which of these is the merit of Standard Deviation

- (a) Is based of all values of the series
(b) shows little effect of the change in the sample
(c) More importance is given to difficult and extreme values
(d) **both a and b**

23. Which of the following equation is correct

- (a) Variance = σ (b) **Variance = σ^2**
(c) Variance = σ^4 (d) Variance = $\sqrt{\sigma} \times 2$

24. Which average is affected by the presence of extreme items?

- (a) Median (b) **Arithmetic Mean**
(c) Mode (d) Geometric mean

ANALYSIS

25. Which of the following can't be called by graphic method?

- (a) **mean** (b) median
(c) mode (d) quartile

26. Which method do you use if there is some common factor of the deviation of the items.

- (a) **step deviation method** (b) direct method
(c) assumed mean method (d) both (b) & (c)

27. Which arithmetic mean gives relative importance to each item.

- (a) **simple arithmetic mean** (b) weighted mean
(c) harmonic mean (d) combined mean

CREATING

28. If out of 2 batsman x and y, one is required to be selected on the basis of consistency, which measure is to be used?

- (a) Quartile deviation (b) Mean deviation
(c) Standard deviation (d) **Coefficient of Variation**

Teachers:Ms.SandhyaVyas**Name of the Topic:** Measures of Central tendency and dispersion

Ms.Arunima Jain, Ms.RupaliDhuriya**Date:** 30/8/19

Dr.Pooja, Ms.Neha Jain, Ms.Anshu Gupta,

Ms. Shiny James, Ms.EktaJaisingh

True/ False

REMEMBERING

- | | True | False |
|---|---|---|
| 1. When different items of a series are weighted according to their relative importance the average of such series is called weighted arithmetic mean | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |
| 2. If the sum of items is divided by the number of items we get median. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |
| 3. Empirical formula of establishing relationship between mean, median and mode is given by $\text{Mode} = 3 \text{ median} - 2 \text{ mean}$. | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |
| 4. Quartile deviation is the average difference of the quartiles from the median | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |
| 5. Cumulative frequency is addition of consecutive frequencies. | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |

UNDERSTANDING

- | | | |
|--|---|---|
| 6. Median divide the series into two equal parts. | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |
| 7. Arithmetic mean is a positional value. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |
| 8. Lorenz Curve does not measure variability of the statistical series. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |
| 9. Absolute measure of variation is that in which variability is expressed in terms of percentage. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |
| 10. Upper quartile is the lowest value of 25% of items. | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |

ANALYSIS

- | | | |
|--|---|---|
| 11. Mean deviation ignores the sign of deviation. | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |
| 12. Standard deviation is independent of origin. | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |
| 13. Median is undully affected by extreme observation. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |
| 14. An average alone is not enough to compare series. | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |
| 15. If a given number is subtracted from all the items in a series then the arithmetic mean of that series will increase by the same specific value. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |
| 16. Mean deviation and standard deviation are determined from Arithmetic mean only. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |
| 17. Higher is the coefficient of variation than lower the variability and lesser thestability consistency. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |

APPLICATION

- | | | |
|--|---|---|
| 18. Cumulative frequency indicates 'less than' or 'more than' value of the series. | <input checked="" type="checkbox"/> [T] | <input type="checkbox"/> [] |
| 19. Mode of 3,4,5,5,3,2,3 is 5. | <input type="checkbox"/> [] | <input checked="" type="checkbox"/> [F] |

20. Q1 and Q3 of the given series are 45 and 70 respectively, its coefficient is 70. [] [**F**]
21. Sum of deviations of different values from arithmetic mean is always equal to zero. [**T**] []
22. Given $\bar{x} = 20$, items 10, 15, X, 20 missing item is 10. [] [**F**]
23. For a skewed distribution, median = 30 and mode = 35. The value of mean is 27.5. [**T**] []
24. In a class of 50 students 10 have failed and their average marks is 2.5. The total marks secured by the entire class were 281. The average marks of those who have passed is 6.4. [**T**] []
25. Suppose there are two commodities, mangoes and potatoes. However we may want to give more importance to the rise in price of potatoes. Arithmetic mean should be calculated. [] [**F**]
26. If you have secured 82 percentile in a management entrance examination it means that your position is below 18% of total candidates appeared in the examination. [**T**] []
27. A manufacturer would like to know the size of shoes that has maximum demand or style of the shirt that is more frequently demanded. Mode is the more appropriate measure. [**T**] []
28. In mean deviation, negative deviations are also treated as positive deviation. [**T**] []

EVALUATION

29. In a symmetrical distribution $\bar{x} > M > Z$ [] [**F**]

Match the following

1. Match the following items with their appropriate meaning:-

(a) Median	(a) Value that divides series into eight equal parts
(b) Quartile	(b) Value that divides series into two equal parts
(c)	(c) Value that divides the series into four equal parts
(d)	(d) Value that divides the series into ten equal parts

a(b), b(c)

2. Match the following series with respective formulae for calculating median

(a) Individual series	(a) $M = \text{size of } (N/2)^{\text{th}} \text{ item}$
(b) Frequency Distribution	(b) $M = \text{Size of } (N+2/2)^{\text{th}} \text{ Item}$
(c)	(c) $M = \text{Size of } (N+1/2)^{\text{th}} \text{ Item}$
(d)	(d) $M = \text{Size of } (N/4)^{\text{th}} \text{ item}$

a(c), b(a)

3. Match the following appropriate meaning with the terms used for them:-

(a) Variable which occurs most in a distribution	(a) Mean
(b) Value which divides the series into four equal parts	(b) Median
(c)	(c) Mode
(d)	(d) Quartile

a(c), b(d)

4. Match the following methods of calculating arithmetic mean for series of ungrouped data with formulae

(a) Direct Method	(a) $= A + \sum d/N$
(b) Assumed Mean Method	(b) $X = \sum X/N$
(c)	(c) $X = A + \sum d'/N \times C$
(d)	(d)

a(b), b(a)

5. Match the following terms with formulae

(a)	Mode	(a)	
(b)	Quartile Deviation	(b)	
(c)		(c)	
(d)		(d)	

a(a), b(c)

6. Match the following terms with formulae

(a)	Mean deviation from median	(a)	$Q3-Q1/Q3+Q1$
(b)	Mean deviation from mean	(b)	$\sum d_m /N$
(c)		(c)	$\sum d_x /N$
(d)		(d)	$\sum X/N$

a(b), b(c)

7. Match the following items with respective options

(a)	Lorenz Curve	(a)	Textual representation
(b)	Equality line	(b)	60° line shows equal distribution of income
(c)		(c)	Graphical representation
(d)		(d)	45° line shows equal distribution of income

a(c), b(d)

8. Match the following formulae with methods of calculating standard deviation

(a)	Actual mean method	(a)	
(b)	Assumed mean method	(b)	
(c)		(c)	
(d)		(d)	

a(a), b(d)

9. Match the following terms with their respective formulae

(a)	Relation among mean, median and mode	(a)	SD^2
(b)	Variance	(b)	MD^2
(c)		(c)	$Z=3m-2x$
(d)		(d)	$Z=3m+2x$

a(c), b(a)

10. Match the following statements with its options

(a)	All items of series are given equal importance	(a)	Combined arithmetic mean
(b)	All different items of series are given different importance	(b)	Simple arithmetic mean
(c)		(c)	Weighted arithmetic mean
(d)		(d)	

a(b), b(c)

11. Match the following terms with their respective formulae

(a)	Median	(a)	
(b)	Quartiles	(b)	
(c)		(c)	
(d)		(d)	

a(c), b(a)

12. Match the following terms with right options

(a)	3 rd Quartile is a type of	(a)	Statistical average
(b)	Median is	(b)	Average
(c)		(c)	3/4 th partition value
(d)		(d)	Middle most value

a(c), b(d)

13. Match the following series with formulae for calculating mean

(a)	Short cut method in discrete series	(a)	$A + \frac{\sum fd'}{\sum f} \times C$
(b)	Step deviation method	(b)	$\frac{\sum X}{N}$
(c)		(c)	$\frac{\sum fm}{\sum f}$
(d)		(d)	$A + \frac{\sum fd}{\sum f}$

a(d), b(a)

14. Match the following series of marks with median value

(a)	3,5,7,9,12	(a)	5
-----	------------	-----	---

(b)	5,8,7,3,4	(b)	9
(c)		(c)	7
(d)		(d)	

a(c), b(a)

15. Match the following values for the given series; 7,8,11,21,35

(a)	Range	(a)	35
(b)	Coefficient of Range	(b)	28
(c)		(c)	0.6
(d)		(d)	0.8

a(b), b(c)

16. Match the suitable average used in following cases:-

(a)	Average size of readymade garments	(a)	Median
(b)	Average intelligence of students in the class	(b)	Arithmetic Average
(c)	Average production in the factory per shift	(c)	Mode
(d)		(d)	Quartile

a(c), b(a), c(a)

17. Match the following items with respective option

(a)	Merit of Lorenz curve	(a)	Not a numerical measure
(b)	<i>Merits of standard deviation</i>	(b)	Can be treated algebraically
(c)		(c)	Easy
(d)		(d)	Based on all observation

a(d), b(c)

18. Match the following terms with their right options

(a)	Merits of mode	(a)	It is an uncertain measure
(b)	Demerits of standard deviation	(b)	Less effect of marginal value
(c)		(c)	Less effect of fluctuations
(d)		(d)	Difficult to compute

a(b), b(d)

19. Match the following values for the given data:-Q1=5, Q3=11 & N=7

(a)	Inter quartile range	(a)	4
(b)	Quartile Deviation	(b)	6
(c)		(c)	1
(d)		(d)	3

a(b), b(d)

20. Match the following series with its correct mean

(a)	Marks:- 80,76,74, 58 Weights=2,3,6,7	(a)	22.5
(b)	Pocket allowance of 4 students	(b)	24.5

	15,20,30,25		
(c)		(c)	16
(d)		(d)	18

a(c), b(a)

21. Match the following series with its value of arithmetic mean

(a)	4,5,6,10,15	(a)	9
(b)	7,9,10,12,12	(b)	8
(c)		(c)	10
(d)		(d)	12

a(b), b(c)

22. Match the following items with correct option

(a)	First quartile	(a)	75% of the item below it & 25 % of the items above it
(b)	Median	(b)	25% of the item below it and 75% of the item above it
(c)		(c)	50% of the item below it and 50% of the item above it
(d)		(d)	

a(b), b(c)

23. Match the following statement with correct option

(a)	The most commonly used measure of dispersion	(a)	H-L/H+L
(b)	Coefficient of Range	(b)	Standard Deviation
(c)		(c)	Range
(d)		(d)	H+L/2

a(b), b(a)

24. Match the following series with the value of coefficient of range

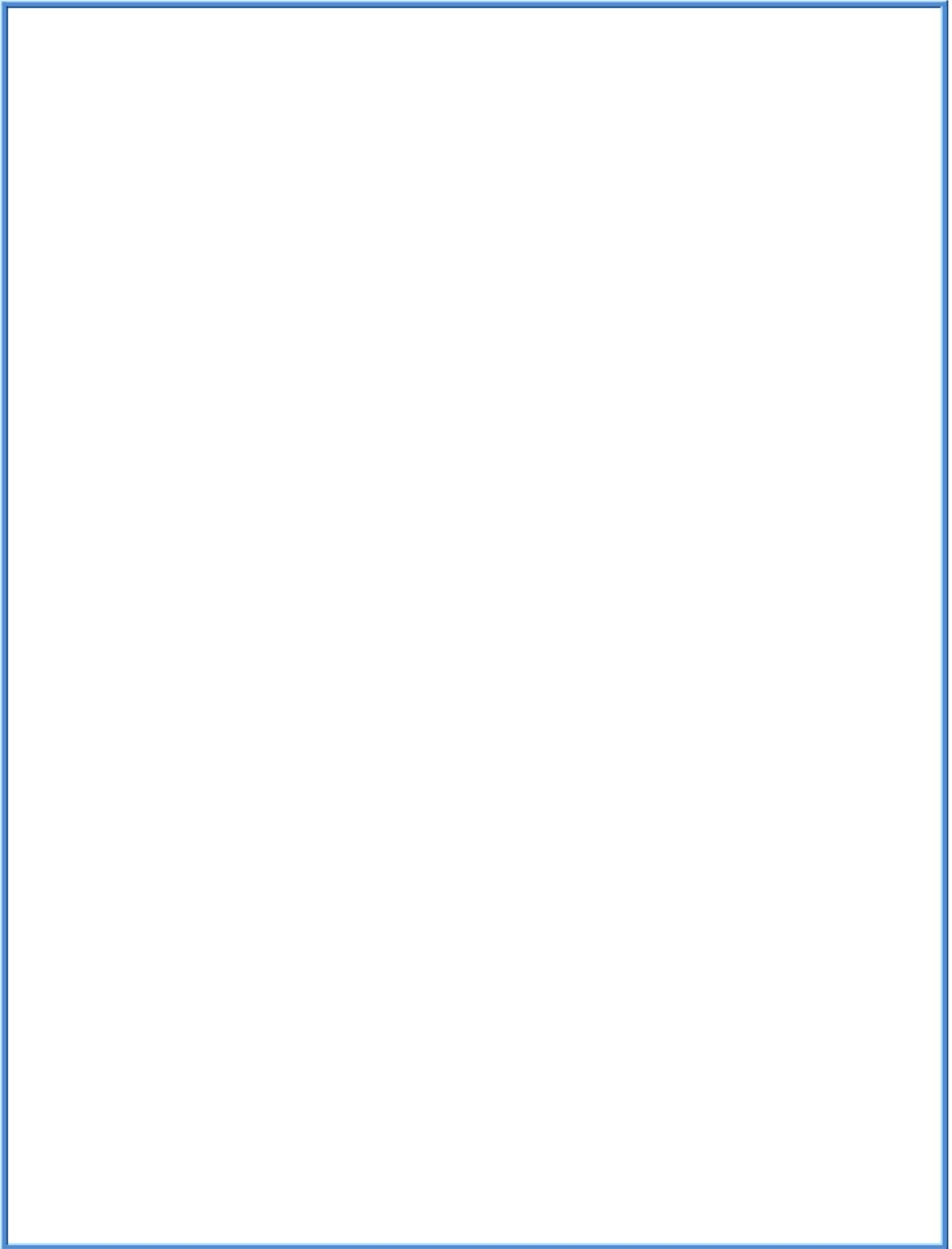
(a)	10,21,41,68,79	(a)	.84
(b)	15,17,5,31,61	(b)	.85
(c)		(c)	.77
(d)		(d)	.67

a(c), b(a)

25. Match the following series with value of median

(a)	5,7,9,11,14	(a)	3.5
(b)	1.5,2.5,3.5,4.5,5.5	(b)	4.5
(c)		(c)	7
(d)		(d)	9

a(d), b(a)



CBSE WORKSHOP

Teachers: Name of the Topic: Date:

Fill in the blanks

1. is the difference between highest and the lowest value of the series. (Range)
2. Median divides a series into points. (two)
3. is the graphical representation of measures of dispersion (Lorenz curve)
4. Mode is the value of variance which occurs..... times in the series. (maximum)
5. The central value of a statistical series is known as..... (Central Tendency)
6. The mean of weighted items of a series is called (Weighted mean)
7. Difference between the 3rd quartile and 1st quartile of the series is (Interquartile range)
8. Presenting the data graphically is known as..... (Ogive)
The basic difference between the continuous and discrete series is of various class intervals taken. (the mid points)
9. Quartile divides the statistical series into..... Equal parts. (four)
10. Q1 is known as..... quartile of series. (lower)
11. The formula of calculating arithmetic mean of a continuous series using direct method is ($\Sigma FM / \Sigma F$)
12. When deviations from the assumed mean have some common factor, then we use method to find average. (step deviation)
13. The first quartile has of the items of the distribution below it and Of the item above it. (25%, 75%)
14. In mean deviation..... are also treated as positive deviations. (negative deviations)
15. If the lower limit of the class of the lowest value is zero, the value of coefficient of range is (one)
16. Coefficient of Mean deviation from mode..... (MDz/z)
17. The arithmetic mean of a series 3,5,8,9,10 will be (7)
18. Sum of deviations of different values from arithmetic mean is always equal to (Zero)
19. Median of the series 5,8,7,3,4 is (5)

20. Lorenz curve shows how actual distribution deviates from distribution (equal)
21. Mode of 3,4,3,5,5,3,2 numbers is (3)
22. Inspection method to find out mode is possible only when there is in the series (homogeneity)
23. In the negatively skewed curve, the value of is greater than median (mode)
24. In case of normal distribution, mean, median, mode of the series tend to(coincide)
25. Median is free from the effect of (extreme value)
26. Arithmetic mean of these items; 4,9,10,X,15 is 8. The value of X is (12)
27. The basic difference in the continuous and discrete series is Of various class intervals taken (the mid points)

CBSE WORKSHOP

Name of the Topic: Correlation and Index Number

Date: 30.8.2019

Teachers: Velina Bhagchandani
Manisha Puri
Anuradha Kapadia
Sucharita Das
Rahul Patni
Dr. V.K. Pandey
Ms. Gunjan

MCQ

1. When coefficient of correlation lies between $+0.25$ and $+0.75$, it is called
 - (a) Perfect Degree
 - (b) High Degree
 - (c) Moderate Degree**
 - (d) Low Degree
2. Coefficient of Correlation always lies between
 - (a) 0 and $+1$
 - (b) -1 and 0
 - (c) -1 and $+1$**
 - (d) 0 and -1
3. When two variables change in the same direction then such correlation is called
 - (a) Negative
 - (b) Positive**
 - (c) Zero
 - (d) Perfect Negative
4. In step deviation method of estimating standard deviation, deviations are taken from
 - (a) Assumed Mean**
 - (b) Actual Mean

(c) Median

(d) Both (a) and (b)

5. Negative Correlation applies to which of the following in case of Normal goods:

(a) **Price and Demand**

(b) Income and Demand

(c) Price and Supply

(d) Price of Substitute goods and Demand

6. In a beauty contest a judge wants to compare the performance of participants. Which method of correlation is most appropriate?

(a) Karl Pearson

(b) Scatter Diagram

(c) **Spearman's Rank Correlation**

(d) Both (a) and (b)

7. Which of the following equation is correct:

(a) $r_k = 1 - \frac{6 \sum D^2}{N}$

(b) $r_k = 1 - \frac{6 \sum D^2}{N^3 - N}$

(c) $r_k = 1 - \frac{6 \sum D^2}{N^2 - N}$

(d)

$r_k = 1 - \frac{6 \sum D^2}{N^4 - N}$

8. Non mathematical method of studying correlation is

(a) Spearman Rank Correlation

(b) Karl Pearson

(c) **Scatter Diagram**

(d) Both (a) and (c)

9. If there is high degree of direct relationship between measures of fertilizers used and productivity of a crop, the value calculated is:

(a) **+0.98**

(b) -0.98

(c) +0.38

(d) -0.38

10. Negative correlation is also called

(a) Direct Correlation

(b) Partial Correlation

(c) Inverse Correlation

(d) Linear Correlation

11. In a scatter diagram, if all the points lie on the line, then the degree of correlation is

(a) Less than one

(b) Zero

(c) Greater than one

(d) One

12. The Correlation between sale of cold drink and high temperature in summer is:

(a) Negative

(b) Positive

(c) No Correlation

(d) Perfect negative

13. Spearman rank correlation coefficient deals with:

(a) Variables

(b) Parameters

(c) Attributes

(d) Constant

14. In notation P_{01} 1 stands for

(a) Current Year

(b) Reference Year

(c) Both (a) and (b)

(d) Base Year

15. Which formula is considered ideal for the construction of Index numbers?

(a) Paasche's Formula

(b) Laspeyere's Formula

(c) **Fisher's Formula**

(d) Both (a) and (b)

16. Consumer Price Index is also known as

(a) Industrial Production Index

(b) **Cost of Living Index**

(c) Wholesale Price Index

(d) Both (a) and (c)

17. Consumer Price Index rises when:

(a) **Dearness Allowances rises**

(b) Export of capital good rises

(c) Price of industrial goods rises

(d) National Income rises.

18. Fisher's Index number is considered ideal because:

(a) Based on variable weights

(b) **satisfies time reversal**

(c) Satisfies factor reversal

(d) Both (a) and (c)

19. Inflation is measured with the help of:

(a) **Wholesale Price Index**

(b) Consumer Price Index

(c) Weighted Index

(d) Industrial Production

20. Index numbers are called the barometer or pulse of

(a) **Economy**

(b) Data calculation

(c) Statistical observations

(d) Mathematical calculations

21. The item having the highest weight in Consumer Price Index for industrial workers is:

(a) **Food**

(b) Clothing

(c) Housing

(d) Comfort goods

22. Which Index number indicates the change in the general price level

(a) Agricultural Production Index

(b) Wholesale Price Index

(c) Cost of Living Index

(d) Industrial Production Index

23. A price relative is the percentage ratio of the value of a variable in

(a) $\frac{P_1}{P_0} \times 100$

(b) $\frac{P_0}{P_1} \times 100$

(c) $\frac{\sum P_1}{\sum P_0} \times 100$

(d) $\frac{\sum P_0}{\sum P_1} \times 100$

25. $P_{01} = \frac{\sum P_1 Q_0}{\sum P_0 Q_0} \times 100$ formula is:

(a) Paasche's Formula

(b) Laspeyere's Formula

(c) Fisher's Formula

(d) Weighted Index

True / False

1. Range of simple correlation coefficient is – 1 to + 1. (T)

2. One is maximum value of correlation coefficient. (T)

3. Definite relation between two or more than two groups or series is called Correlation. (T)

4. Coefficient of correlation is always positive. (F)

5. In scatter diagram more the different points are close to each other less will be the value of correlation. (T)

6. If the value of coefficient of correlation is plus one it implies that correlation between the two

variables is perfectly positive. (T)

7. Karl Pearson's method of correlation applied to these series where deviation are calculated on the basis of assumed mean. (F)

8. There is always a cause and effect relationship between two series having high coefficient of correlation. (F)

9. If r is equal to zero then the two variables are uncorrelated. (T)

10. In case of non linear correlation two variables change in constant proportion (F)

11. Rank correlation is a statistical technique that measures qualitative relationship between different variables. (T)

12. In case of positive correlation two variables move in the same direction. (T)

13. In a step deviation method estimating standard deviation deviations are taken from the assumed mean. (T)

14. Mathematical study of correlation is scatter diagram (T)

15. Index numbers measure result of change in the variables overtime. (T)

16. A rising index of price suggest a rising level of economic activity. (F)

17. In weighted index weight are forwarded to different items depending on the relative importance. (T)

18. Consumer price index numbers are constructed to measure the effect of average changes in in wholesale prices of consumers living in different places. (F)

19. simple index numbers can be constructed only by the simple aggregative method. (F)

20. Inflation is measured in terms of changes in wholesale price index based on weekly statement of wholesale prices. (T)

21. In simple index numbers all items of the series are recorded equal weighted. (T)

22. Base year is the year of comparison. (T)

23. a price relative is a percentage ratio between price of a commodity in the current year and that in the base year. (T)

24. in India the wholesale price index numbers are constructed on monthly basis. (F)

25. consumer price index numbers are used by the government to prem policies on quantities. (F)

Match the following

REMEMBERING

1.

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2.

(a)	Laspeyre's Method	(a)	$\Sigma p_1 q_1 / \Sigma p_0 q_1 * 100$
(b)	Paasche's Method	(b)	$\Sigma p_0 q_0 / \Sigma p_1 q_1 * 100$
(c)		(c)	$\Sigma p_1 q_0 / \Sigma p_0 q_0 * 100$
(d)		(d)	$\Sigma p_0 q_1 / \Sigma p_1 q_1 * 100$

3.

(a)	Wholesale price Index	(a)	Compare changes in Physical quantity of goods produced, consumed or sold.
(b)	Retail price Index	(b)	He acts as an indicator of the rate of inflation.
(c)		(c)	Measure of the cost of living in a country.
(d)		(d)	Compare the total value of current with one total value of a base year.

4.

(a)	Laspeyre's Method	(a)	Ideal Index
(b)	Paasche's Method	(b)	Weights are determined by the quantities of commodities in base year
(c)		(c)	Weights are determined by the quantities of commodities in given year.
(d)		(d)	Base year quantity and given year quantity

5.

(a)	CPI by Aggregate Expenditure Method	(a)	$\Sigma p_1 q_0 / \Sigma p_0 q_0 * 100$
(b)	CPI by family Budget Method	(b)	$\Sigma p_0 q_0 / \Sigma p_0 q_0 * 100$
(c)		(c)	$\Sigma RW / \Sigma W$
(d)		(d)	$\Sigma R_1 W_1 / \Sigma W$

UNDERSTANDING

6.

(a)	Example of positive correlation	(a)	Day temperature and sale of woollen garments.
(b)	Example of negative correlation	(b)	Age of husband and age of wife
(c)		(c)	Demand for electricity and temperature move in same direction.
(d)		(d)	Beauty and honesty

7.

(a)	Simple Correlation	(a)	Roads and Railways
(b)	Multiple correlation	(b)	Price and demand
(c)		(c)	Output per hectare production of wheat depends on rain ,fertilizers,water,etc.
(d)		(d)	Literacy and productivity

8.

(a)	Realtionship between shoe size and intelligence	(a)	Positive
(b)	Relationship between sale of icecream and summer season	(b)	Negative
(c)		(c)	Zero
(d)		(d)	Perfect positive

9.

(a)	Mining industries	(a)	Iron and steel
(b)	Textile industries	(b)	Coal,Iron ore
(c)		(c)	Cotton,woollen
(d)		(d)	Ships,Aeroplanes.

10.

(a)	Use of Index Number	(a)	Selection of commodities
(b)	Problem of Index Number	(b)	Determining the allowance
(c)		(c)	Simplifies complexities

(d)		(d)	Control inflation
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11.

(a)	Perfect positive correlation	(a)	All the points are scattered around a straight line going upwards
(b)	Perfect negative correlation	(b)	A line passes from all the points in upward direction.
(c)		(c)	All the points are scattered around a straight line going downwards.
(d)		(d)	A line passes from all the points in downward direction.

12.

(a)	Scatter Diagram	(a)	It shows Quantitative correlation between Variables.
(b)	Karl's Pearson's	(b)	Both a and b
(c)		(c)	Zero correlation between the variables.
(d)		(d)	It shows qualitative correlation between the variables.

13.

(a)	If r_{xy} is positive, then relation between X and Y	(a)	When Y increases, X decreases
(b)	If $r_{xy}=0$, then relation between X and Y	(b)	When Y increases, X increases
(c)		(c)	Non-linearly related
(d)		(d)	When Y decreases, X increases

14.

(a)	For preparing index which average is most commonly used	(a)	Geometric Mean
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(b)	For preparing index which average is best.	(b)	Arithmetic mean
(c)		(c)	Harmonic Mean
(d)		(d)	Weighted Arithmetic Mean

15.

(a)	The main group of industry covered by IIP	(a)	Wholesale price
(b)	CPI measure change in	(b)	Manufacturing
(c)		(c)	Services
(d)		(d)	Retail Price

16.

(a)	If CPI for a given year is 140 then purchasing power of a rupees is	(a)	0.71
(b)	If CPI for a given year is 200 then purchasing power of a rupees is	(b)	0.5
(c)		(c)	0.25
(d)		(d)	0.70

17.

(a)	If $\sum p_1 q_0 / \sum p_0 q_0$ is 1.1896. Calculate Index No.	(a)	11.8986
(b)	If $\sum p_1 q_1 / \sum p_0 q_0$ is 1.1979. Calculate Index No.	(b)	118.96

(c)		(c)	119.79
(d)		(d)	11.979

18.

(a)	HDI aims to determine	(a)	Country is developed, developing & underdeveloped.
(b)	Producer's Price Index concentrates	(b)	Life expectancy & literacy.
(c)		(c)	Area of industry based production.
(d)		(d)	To rank countries by level of population.

19.

(a)	The highest weight in CPI for industrial workers is	(a)	Food
(b)	The highest weight in CPI for farm labourer is	(b)	Car
(c)		(c)	Clothing
(d)		(d)	Seeds

20.

(a)	An increase in industrial production by 60.2 % implies	(a)	An increase in industrial production by 70.2%.
(b)	Value of IIP is increases by 170.2%. It means	(b)	An increase in industrial production by 17.02%.
(c)		(c)	Value of IIP is 160.20.
(d)		(d)	Value of IIP is 60.20 %

21.

(a)	Tata NANO Plant in Sanand , Gujarat grains & production of grains in Gujarat is	(a)	Negatively correlated.
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(b)	Mission Mars & rate of literacy in India's women are	(b)	Not correlated
(c)		(c)	Positively correlated
(d)		(d)	Perfectly positively correlated.

22.

(a)	Laspeyre's method is based on	(a)	Fixed weights of the current year
(b)	Pasche's method is based on	(b)	Fixed weights of the base year
(c)		(c)	New quantity weights of current period only
(d)		(d)	Quantity weights for both current & Base year.

23.

(a)	If the calculated cost of living index number is more than 100	(a)	Barometer for the economy
(b)	Index no. acts as a	(b)	Thermometer of the economy
(c)		(c)	It means a high cost of living
(d)		(d)	It means a low cost of living

24.

(a)	Purchasing Power and CPI are	(a)	Positively Correlated
(b)	Sensex and Recession are	(b)	Negatively correlated
(c)		(c)	Not correlated
(d)		(d)	Partially correlated

25.

(a)	Change in price index may lead to difference in real income even earning equal income. It shows	(a)	Direct relationship between price index and purchasing power
(b)	To calculate purchasing power of money and real wages we use:	(b)	Inverse relationship between price index and purchasing power
(c)		(c)	Consumer price index
(d)		(d)	Wholesale price index

CBSE WORKSHOP

Name of the Topic: Correlation and Index Numbers

Date: 31/8/2019

Teachers: Ms Kalpana J Wadhwa, Mr. Jatin Parashar, Ms Shabana Khan, Ms Palki Ghai, Ms Saman Khan, Mr Ravindra Tripathi, Mr Navneet Kumar Golecha.

Fill in the blanks

1. The maximum value of rank correlation coefficient is +1.
2. The rank of coefficient of correlation lies between -1 to +1.
3. Rank correlation is also called Spearman's Correlation.
4. Consumer Price Index is constructed by the average of price relative.
5. Index numbers provides relative changes only.
6. The correlation between the age of husband and wife is 0.
7. Correlation is the study of analysing of bi-variate distribution.
8. Rapid increase in price index implies higher rate of inflation.
9. A vast scatter of points that it is impossible to see any trends, this shows no correlation.
10. Simple aggregate method is influenced by the magnitude of the price.
11. If $r_{xy} = 0$, then variable x & y are non-linearly related.
12. In a beauty contest the result is concluded through rank correlation method.
13. In Laspeyres's method weights are represented by quantity of the commodities in the base year.
14. To determine whether the country is developed, developing or underdeveloped human development Index can be used.
15. Price relative for a single commodity may be called an index no. of that commodity.
16. If the values are not repeated, answer obtained by Karl's Pearson method & Rank Difference method will be same.
17. If CPI for a given year is 200, then purchasing power for a rupee will be 0.5.
18. The consumer price index no. of 142.13 shows an increase of 42.13 % in prices.

19. If the value of X series are 200, 400 & 600 are divided by a common factor 200, we take the values as
1,2&. The value of r would not be affected.
20. If the relationship between x & y is positive as variable y decreases, variable x **decreases**.
21. Determination & liquidity of cash are **positively** correlated.
22. Updation of technology & job opportunity in the economy is **negatively correlated**.
23. To measure the standard of living of workers in an organised sector, the **cost of living** index is prepared.
24. The **consumer price index** helps us in determining the effect of rise & fall in prices on different classes of consumer's living in different areas.
25. Index of industrial production measures the changes in the **quantity** of production and not the value of production.