ROLL NUMBER				

INDIAN SCHOOL MUSCAT
HALF YEARLY EXAMINATION 2022
ECONOMICS (030)

CLASS : XI

DATE: 26-11-2022

TIME ALLOTED : 3 HRS.

MAXIMUM MARKS: 80

GENERAL INSTRUCTIONS:

1. This question paper contains two parts:
   Part A - Statistics for Economics (40 marks)
   Part B – Introductory Microeconomics (40 marks).
2. Marks for questions are indicated against each question.
3. Question No. 1-10 and Question No. 18 – 27 are 1 mark questions and are to be answered in one word/sentence.
4. Question No. 11-12 and Question No. 28 – 29 are 3 marks questions and are to be answered in 60 - 80 words each.
5. Case Based Questions (CBQ's) are Question No. 14 and Question No. 32.
6. Question No. 14-15 and Question No. 31 – 32 are 4 marks questions and are to be answered in 80-100 words each.
7. Question No. 16-17 and Question No. 33 – 34 are 6 marks questions and are to be answered in 100-150 words each.
8. Answers should be brief and to the point and the above word limit be adhered to as far as possible.

STATISTICS FOR ECONOMICS (40 Marks)

1. _____ is the most commonly used measure of central tendency. (Choose the correct alternative)   1
   - (A) Arithmetic Mean
   - (B) Median
   - (C) Quartile
   - (D) Mode

OR

In case of an even number of observations which of the following is median? (Choose the correct alternative)
   - (A) Any of the two middle-most value
   - (B) The simple average of these two middle values
   - (C) The weighted average of these two middle values
   - (D) None of these

2. The raw data can be grouped according to time. Such a classification is known as a _____. 1
(Choose the correct alternative)
   (A) Chronological Classification
   (B) Spatial Classification
   (C) Qualitative Classification
   (D) Quantitative Classification

3. Fill up the blank with correct answers 1
The unclassified data, which are highly disorganised, are called _____.

4. We want to know how the national income or the total income arising from what has been 1
produced in the country (called the Gross Domestic Product or GDP) is distributed through
wages (and salaries), profits and interest. This is the study of _____. (Choose the correct
alternative)
   (A) Consumption
   (B) Production
   (C) Distribution
   (D) Statistics

5. Fill up the blank with correct answers 1
Statistics is the collection, organisation, _____, analysis and _____ of numerical data.

6. There are various agencies, which collect, process, tabulate and publish statistical data. These 1
are used as _____. (Choose the correct alternative)
   (A) Statistics
   (B) Primary data
   (C) Secondary data
   (D) Economic data

OR

The data collected on the height of a group of students after recording their heights with a
measuring tape are: (Choose the correct alternative)
   (A) Primary data
   (B) Secondary data
   (C) Discrete data
   (D) Continuous data.

7. Statistical calculations in classified data are based on: (Choose the correct alternative) 1
   (A) The actual values of observations
   (B) The upper class limits
   (C) The lower class limits
   (D) The class midpoints

8. State whether the following statement is true or false. 1
There is a certain bias involved in the non-random selection of samples.

OR

State whether the following statement is true or false.
A discrete variable cannot take any fractional value.

9. Which of the following is true for open-ended questions? (Choose the correct alternative)   1
   (A) They do not allow individualised responses.
   (B) They are difficult to interpret and hard to score.
   (C) There are no variations in different questions.
   (D) They are highly structured

10. In a Frequency Distribution the classes should be formed in such a way that the values of   1
    observations are based on the_____ of each class for further statistical calculations. (Choose
    the correct alternative)
    (A) Class limits
    (B) Class interval
    (C) Class mark
    (D) Frequency

11. Prepare a multiple bar diagram from the following data: 3

Faculty	2017-18	2018-19	2019-20
Commerce	600	550	500
Science	400	500	600
Humanities	200	250	300

OR

With the help of given data, draw a histogram

Marks	0-10	10-20	20-30	30-40	40-50
No. of students	8	18	15	22	14

12. State any three functions of statistics.   3

13. Given are the ages of a group of people. Find the median age from the following data.   4

Age (in years)	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60
No. of persons	50	70	100	180	150	120	70	60

14. **Read the following Case Study carefully and answer the given questions:**   4

Census of India is a decennial publication of the Government of India. It is published by
Registrar General and is a very comprehensive source of secondary data. It relates to population
size and various aspects of demographic changes in India. It may be of historical interest that
though the population census of India is a major administrative function. The Census Act was
enacted in 1948 to provide for the scheme of conducting population census with duties and
responsibilities of census officers for developing systematic collection of statistics on the size
of the population, its growth, etc.

Questions:

1. Data originally collected in the process of investigation are known as _____ (Primary data/ Secondary data).
2. State whether the following statement is true or false
   Census method needs less number of enumerators.
3. Census of India is carried out once in _____ years. (10/ 5)
4. Some important sources of secondary data are: (Choose the correct alternative)
   (A) Census of India and NSSO
   (B) International and primary sources
   (C) Private and primary sources
   (D) Government sources

15. Find out the arithmetic mean from the following data by (a) direct method and (b) assumed mean method.   4

X (₹):	15	20	30	22	25	18	40	50	55	65

OR

The following table shows the marks obtained by students in a certain examination. Calculate the average marks by assumed mean method.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of students	3	8	8	10	7	5	5	4

16. (a) What is a pie diagram?   6
    (b) The taste of 500 people of a society for different type of food was recorded as given in the following table. Draw a pie diagram to represent the data.

Type of food	North Indian	South Indian	Chinese	Italian	Mexican
Number of People	150	100	125	75	50

17. (a) What is the basic difference between an 'continuous' and 'discrete' variable?   6
    (b) Construct a frequency array from the following data.

15	16	16	17	18	17	15	15	16	16
17	15	16	16	15	16	16	15	17	17
18	19	16	15	18	17	15	15	16	16
15	16	16	17	18	18	19	16	15	18
16	16	15	17	17	17	15	15	16	16

OR

(a) How is data organized in the following classifications?
   (i) Chronological classification
   (ii) Spatial classification

(b) Classify the following data by taking class interval of 5 in an exclusive type of frequency distribution

30	42	30	54	40	48	15	17	51	42
25	41	30	27	42	36	28	26	37	54
44	31	36	40	36	22	30	31	19	48
16	42	32	21	22	46	33	41	21	35

INTRODUCTORY MICROECONOMICS (40 Marks)

18. Per unit production of the variable factor input is called: (Choose the correct alternative).   1
    (A) Total product
    (B) Marginal product
    (C) Average product
    (D) Final product

19. A movement along the demand curve for soft drinks is best described as :   1
    (A) An increase in demand.
    (B) A decrease in demand.
    (C) A change in quantity demanded.
    (D) A change in demand.

OR

Which of the following is not a determinant of individual demand function? (Choose the correct alternative).
    (A) Price
    (B) Distribution of Income
    (C) Income of Consumer
    (D) Taste and preferences of the consumer

20. If with the rise in price of good Y, demand for good X rises, the two goods are: (Choose the   1
    correct alternative).
    (A) Substitutes
    (B) Complements
    (C) Not related
    (D) Jointly demanded

OR

If due to fall in the price of good X, demand for good Y rises, the two goods are: (Choose the correct alternative).
    (A) Substitutes
    (B) Complements
    (C) Not related
    (D) Competitive

21. Which of the following is a central problem of every economy? (Choose the correct alternative).   1
    (A)   Abundance of resources
    (B)   Scarcity of economic resources
    (C)   Poverty
    (D)   Moral and ethical values

OR

Micro economics theory deals with
    (A)   Economic behaviour of individual economic decision making units
    (B)   Economy as a whole
    (C)   Trade relations
    (D)   Economic growth of the society

22. The central problem of how to produce is resolved by: (Choose the correct alternative).   1
    (A)   Demand and supply of factor inputs
    (B)   Demand and supply of goods
    (C)   Relative prices and availability of factor of production
    (D)   Government intervention

23. Which of these statement is true about production possibility curve (PPC/PPF): (Choose the   1
    correct alternative).
    (A)   It shows various combinations of two goods which yield same level of satisfaction
    (B)   It shows various combination of two goods which an economy can produce with a
          given amount of resources
    (C)   It shows various combination of two goods which an economy can produce with a
          given budget
    (D)   It shows various combination of two goods which an economy can produce with a
          given time

24. Law of demand States the _____ relationship between price and quantity demanded.   1
    (Choose the correct alternative).
    (A)   Inverse
    (B)   Positive
    (C)   Proportional
    (D)   Equal

25. During short period, production can be increased through: (Choose the correct alternative).   1
    (A)   Greater application of fixed factors
    (B)   Greater application of variable factors
    (C)   Greater application of all factors of production
    (D)   Greater application of production management

26. Read the following statements assertion and reason choose one of the correct alternatives given below:

    Assertion (A): Marginal utility can never be negative.

    Reason (R): Total utility is maximum when marginal utility is 0.

    Alternatives:

    (A)   Both Assertion (A) and Reason (R) are true and Reason (R) is the correct explanation of the explanation of Assertion (A).

    (B)   Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct explanation of Assertion (A).

    (C)   Assertion (A) is a true but Reason (R) is false

    (D)   Assertion (A) is false but Reason (R) is true

27. A consumer is consuming two goods X and Y and is in equilibrium. The prices of X and Y are ₹10 and ₹20 respectively and the marginal utility of good Y is 50 utils. What will be marginal utility of good X? (Choose the correct alternative).

    (A)   100 utils

    (B)   25 utils

    (C)   250 utils

    (D)   4 utils

28. Calculate average product and marginal product from the following production data

Units of labour	1	2	3	4	5	6	7
Total Product	20	36	48	56	60	60	56

OR

The following table gives the marginal product schedule of labour. Find the total product and average product schedules. It is given that the total product is zero at zero level of labour employment.

Units of labour	1	2	3	4	5	6
MP of labour	3	5	7	5	3	1

29. "Scarcity and choice problem go together." Do you agree with the statement? Give reasons in support of your answer

30. Price elasticity of demand for wheat is equal to unity and a household demands 40 Kg of wheat when the price is ₹1 per kg. At what price will the household demand 36 kg of wheat?

OR

The quantity demanded of a commodity at a price of ₹10 per unit is 40 units. Its price elasticity of demand is -2. Its price falls by ₹2/- per unit. Calculate its quantity demanded at the new price.

31. Using a diagram, explain what happens to the production possibility curve when there is a loss of production facilities in a region due an earthquake.

32. **Read the following Case Study carefully and answer the given questions:** 4

If our income rises, we generally tend to buy more of the goods. More income would mean more pens, more shirts, more shoes, more cars and so on. But there are exceptions. If initially, you are buying coarse grain, how would you take your increase in income now? Perhaps, as a first step, you would discard the consumption of inferiors. Surely, this happens in certain states of India where the rich minority eats wheat while the poor majority eats Bajra as their staple food.

Questions:
1. How much a consumer can buy depends upon _____.
   - (A) The prices of available goods in the market
   - (B) The Income of the consumer
   - (C) The quality of the good offered by seller
   - (D) The prices of goods and the income of consumer
2. The law of demand does not apply to _____ goods. (Normal/ Giffen)
3. Inferior goods are those whose income effect is_____. (Negative/ Positive)
4. A fall in income of the consumer (in case of normal goods) will cause:
   - (A) Rightward shift of the demand curve
   - (B) Leftward shift of the demand curve
   - (C) Upward movement on the demand curve.
   - (D) Downward movement on the demand curve

33. State the law of demand. Why is there an inverse relationship between price and quantity demanded? 6

34. Explain the condition of consumer's equilibrium in case of two commodities (Law of Equi-Marginal Utility). What happens when the marginal utilities of the two goods are not equal? 6

OR

Explain the conditions of consumer's equilibrium with help of indifference curve analysis/ordinal utility approach. Use diagram

****END OF THE QUESTION PAPER****

INDIAN SCHOOL MUSCAT
HALF YEARLY EXAMINATION 2022
ECONOMICS (030)

CLASS : XI

DATE: 26-11-2022

TIME ALLOTED : 3 HRS.

MAXIMUM MARKS: 80

GENERAL INSTRUCTIONS:

1. This question paper contains two parts:
   Part A - Statistics for Economics (40 marks)
   Part B – Introductory Microeconomics (40 marks).
2. Marks for questions are indicated against each question.
3. Question No. 1-10 and Question No. 18 – 27 are 1 mark questions and are to be answered in one word/sentence.
4. Question No. 11-12 and Question No. 28 – 29 are 3 marks questions and are to be answered in 60 - 80 words each.
5. Case Based Questions (CBQ's) are Question No. 13 and Question No. 31.
6. Question No. 14-15 and Question No. 31 – 32 are 4 marks questions and are to be answered in 80-100 words each.
7. Question No. 16-17 and Question No. 33 – 34 are 6 marks questions and are to be answered in 100-150 words each.
8. Answers should be brief and to the point and the above word limit be adhered to as far as possible.

STATISTICS FOR ECONOMICS (40 Marks)

1. We want to know how the national income or the total income arising from what has been produced in the country (called the Gross Domestic Product or GDP) is distributed through wages (and salaries), profits and interest. This is the study of _____. (Choose the correct alternative)   1
   - (A) Consumption
   - (B) Production
   - (C) Distribution
   - (D) Statistics

2. Fill up the blank with correct answers   1
   Statistics is the collection, organisation, _____, analysis and _____ of numerical data.

3. There are various agencies which collect, process, tabulate and publish statistical data. These are used as _____. (Choose the correct alternative)   1
   (A) Statistics
   (B) Primary data
   (C) Secondary data
   (D) Economic data

OR

The data collected on the height of a group of students after recording their heights with a measuring tape are: (Choose the correct alternative)
   (A) Primary data
   (B) Secondary data
   (C) Discrete data
   (D) Continuous data.

4. Which of the following is true for open-ended questions? (Choose the correct alternative)   1
   (A) They do not allow individualised responses.
   (B) They are difficult to interpret and hard to score.
   (C) There are no variations in different questions.
   (D) They are highly structured

5. State whether the following statement is true or false.   1
   There is a certain bias involved in the non-random selection of samples.

OR

State whether the following statement is true or false.
A discrete variable cannot take any fractional value.

6. Statistical calculations in classified data are based on: (Choose the correct alternative)   1
   (A) The actual values of observations
   (B) The upper class limits
   (C) The lower class limits
   (D) The class midpoints

7. Fill up the blank with correct answers   1
   The unclassified data which are highly disorganised are called _____.

8. The raw data can be grouped according to time. Such a classification is known as a _____.   1
   (Choose the correct alternative)
   (A) Chronological Classification
   (B) Spatial Classification
   (C) Qualitative Classification
   (D) Quantitative Classification

9. In a Frequency Distribution the classes should be formed in such a way that the values of observations are based on the _____ of each class for further statistical calculations. (Choose the correct alternative)   1

(A) Class limits
(B) Class interval
(C) Class mark
(D) Frequency

10. _____ is the most commonly used measure of central tendency. (Choose the correct alternative)   1

   (A) Arithmetic Mean
   (B) Median
   (C) Quartile
   (D) Mode

OR

In case of an even number of observations which of the following is median? (Choose the correct alternative)

   (A) Any of the two middle-most value
   (B) The simple average of these two middle values
   (C) The weighted average of these two middle values
   (D) None of these

11. State any three functions of statistics.   3

12. Represent the following distribution into a less than cumulative frequency curve.   3

Class	0- 10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	6	12	24	26	18	10	4

OR

Represent the following distribution into a more than cumulative frequency curve.

Class	0- 5	5 - 10	10-15	15-20	20-25	25-30	30-35	35-40
Frequency	4	6	10	10	25	22	18	5

13. **Read the following Case Study carefully and answer the given questions:**   4

Census of India is a decennial publication of the Government of India. It is published by Registrar General and is a very comprehensive source of secondary data. It relates to population size and various aspects of demographic changes in India. It may be of historical interest that though the population census of India is a major administrative function. The Census Act was enacted in 1948 to provide for the scheme of conducting population census with duties and responsibilities of census officers for developing systematic collection of statistics on the size of the population, its growth, etc.

Questions:

1. Data originally collected in the process of investigation are known as _____ (Primary data/ Secondary data).

2. State whether the following statement is true or false

Census method needs less number of enumerators.

3. Census of India is carried out once in _____ years. (10/ 5)

4. Some important sources of secondary data are: (Choose the correct alternative)

(A) Census of India and NSSO

(B) International and primary sources

(C) Private and primary sources

(D) Government sources

14. Find out the arithmetic mean from the following data by (a) direct method and (b) assumed   4
mean method.

X (₹):	15	20	30	22	25	18	40	50	55	65

OR

The following table shows the marks obtained by students in a certain examination. Calculate
the average marks by assumed mean method.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of students	3	8	8	10	7	5	5	4

15. Calculate median from the following data.   4

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of students	6	16	16	20	14	10	10	8

16.   (a) What is the basic difference between an 'continuous' and 'discrete' variable?   6

(b) Construct a frequency array from the following data.

15	16	16	17	18	17	15	15	16	16
17	15	16	16	15	16	16	15	17	17
18	19	16	15	18	17	15	15	16	16
15	16	16	17	18	18	19	16	15	18
16	16	15	17	17	17	15	15	16	16

OR

(a) What is the basic difference between an 'inclusive' and 'exclusive' frequency
distribution?

(b) Construct an inclusive frequency distribution from the following data keeping the
class interval as 6.

24	4	18	28	6	36	1	7	27	8	33
15	22	8	14	29	16	23	6	9	23	1
9	26	9	27	32	2	15	21	4	11	1
4	13	15	12	18	17	10	3	27	2	18

17. (a) What is a pie diagram?   6

(b) The taste of 500 people of a society for different type of food was recorded as
given in the following table. Draw a pie diagram to represent the data.

Type of food	North Indian	South Indian	Chinese	Italian	Mexican
Number of People	150	100	125	75	50

INTRODUCTORY MICROECONOMICS (40 Marks)

18. Which of the following is a central problem of every economy? (Choose the correct alternative).   1
   (A)   Abundance of resources
   (B)   Scarcity of economic resources
   (C)   Poverty
   (D)   Moral and ethical values

OR

Micro economics theory deals with
   (A)   Economic behaviour of individual economic decision making units
   (B)   Economy as a whole
   (C)   Trade relations
   (D)   Economic growth of the society

19. The central problem of how to produce is resolved by: (Choose the correct alternative).   1
   (A)   Demand and supply of factor inputs
   (B)   Demand and supply of goods
   (C)   Relative prices and availability of factor of production
   (D)   Government intervention

20. Which of these statement is true about production possibility curve (PPC/PPF): (Choose the   1
correct alternative).
   (A)   It shows various combinations of two goods which yield same level of satisfaction
   (B)   It shows various combination of two goods which an economy can produce with a
given amount of resources
   (C)   It shows various combination of two goods which an economy can produce with a
given budget
   (D)   It shows various combination of two goods which an economy can produce with a
given time

21. Read the following statements assertion and reason choose one of the correct alternatives given   1
below:

Assertion (A): Marginal utility can never be negative.

Reason (R): Total utility is maximum when marginal utility is 0.

Alternatives:
   (A)   Both Assertion (A) and Reason (R) are true and Reason (R) is the correct
explanation of the explanation of Assertion (A).

(B) Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct explanation of Assertion (A).

(C) Assertion (A) is a true but Reason (R) is false

(D) Assertion (A) is false but Reason (R) is true

22. A consumer is consuming two goods X and Y and is in equilibrium. The prices of X and Y are ₹10 and ₹20 respectively and the marginal utility of good Y is 50 utils. What will be marginal utility of good X? (Choose the correct alternative).   1

(A) 100 utils

(B) 25 utils

(C) 250 utils

(D) 4 utils

23. Law of demand States the _____ relationship between price and quantity demanded. (Choose the correct alternative).   1

(A) Inverse

(B) Positive

(C) Proportional

(D) Equal

24. If with the rise in price of good Y, demand for good X rises, the two goods are: (Choose the correct alternative).   1

(A) Substitutes

(B) Complements

(C) Not related

(D) Jointly demanded

OR

If due to fall in the price of good X, demand for good Y rises, the two goods are: (Choose the correct alternative).

(A) Substitutes

(B) Complements

(C) Not related

(D) Competitive

25. A movement along the demand curve for soft drinks is best described as :   1

(A) An increase in demand.

(B) A decrease in demand.

(C) A change in quantity demanded.

(D) A change in demand.

OR

Which of the following is not a determinant of individual demand function? (Choose the correct alternative).

(A) Price

(B) Distribution of Income

(C) Income of Consumer

(D) Taste and preferences of the consumer

26. During short period, production can be increased through: (Choose the correct alternative).   1
    (A)   Greater application of fixed factors
    (B)   Greater application of variable factors
    (C)   Greater application of all factors of production
    (D)   Greater application of production management

27. Per unit production of the variable factor input is called: (Choose the correct alternative).   1
    (A)   Total product
    (B)   Marginal product
    (C)   Average product
    (D)   Final product

28. Why marginal opportunity cost must rise as resources are shifted from the production of good   3
    one good to the production of the other good when the given resources are fully and efficiently
    employed?

29. Calculate average product and marginal product from the following production data   3

Units of labour	1	2	3	4	5	6	7
Total Product	20	36	48	56	60	60	56

OR

The following table gives the marginal product schedule of labour. Find the total product and average product schedules. It is given that the total product is zero at zero level of labour employment.

Units of labour	1	2	3	4	5	6
MP of labour	3	5	7	5	3	1

30. Using a diagram, explain what happens to the production possibility curve when there is a loss   4
    of production facilities in a region due an earthquake.

31. **Read the following Case Study carefully and answer the given questions:**   4

If our income rises, we generally tend to buy more of the goods. More income would mean more pens, more shirts, more shoes, more cars and so on. But there are exceptions. If initially, you are buying coarse grain, how would you take your increase in income now? Perhaps, as a first step, you would discard the consumption of inferiors. Surely, this happens in certain states of India where the rich minority eats wheat while the poor majority eats Bajra as their staple food.

Questions:
   1. How much a consumer can buy depends upon _____.
      (A)   The prices of available goods in the market
      (B)   The Income of the consumer
      (C)   The quality of the good offered by seller
      (D)   The prices of goods and the income of consumer

2. The law of demand does not apply to _____ goods. (Normal/ Giffen)
3. Inferior goods are those whose income effect is_____. (Negative/ Positive)
4. A fall in income of the consumer (in case of normal goods) will cause:
   (A) Rightward shift of the demand curve
   (B) Leftward shift of the demand curve
   (C) Upward movement on the demand curve.
   (D) Downward movement on the demand curve

32. A 5% fall in the price of Good X, leads to a 10% rise in its quantity demanded. A 20% rise in price of Good Y, leads to a 10% fall in its quantity demanded. Calculate the price elasticities of demand of the two goods. Out of the two goods, which one is more elastic?   4

OR

Price elasticity of demand of a commodity is (–) 1.5. When its price falls by ₹1 per unit, its quantity demanded rises by 3 units. If the quantity demanded before the price change was 30 units, what was the price at this demand?

33. Explain the condition of consumer's equilibrium in case of two commodities (Law of Equi-Marginal Utility). What happens when the marginal utilities of the two goods are not equal?   6

OR

Explain the conditions of consumer's equilibrium with help of indifference curve analysis/ordinal utility approach. Use diagram

34. Explain the following determinants of demand   6
    (a) Change in income of consumer (use suitable diagrams)
    (b) Change in price of related goods.

****END OF THE QUESTION PAPER****

INDIAN SCHOOL MUSCAT
HALF YEARLY EXAMINATION 2022
ECONOMICS (030)

CLASS : XI
DATE: 26-11-2022

TIME ALLOTED : 3 HRS.
MAXIMUM MARKS: 80

GENERAL INSTRUCTIONS:

1. This question paper contains two parts:
   Part A - Statistics for Economics (40 marks)
   Part B – Introductory Microeconomics (40 marks).
2. Marks for questions are indicated against each question.
3. Question No. 1-10 and Question No. 18 – 27 are 1 mark questions and are to be answered in one word/sentence.
4. Question No. 11-12 and Question No. 28 – 29 are 3 marks questions and are to be answered in 60 - 80 words each.
5. Case Based Questions (CBQ's) are Question No. 15 and Question No. 30.
6. Question No. 14-15 and Question No. 31 – 32 are 4 marks questions and are to be answered in 80-100 words each.
7. Question No. 16-17 and Question No. 33 – 34 are 6 marks questions and are to be answered in 100-150 words each.
8. Answers should be brief and to the point and the above word limit be adhered to as far as possible.

STATISTICS FOR ECONOMICS (40 Marks)

1. State whether the following statement is true or false.   1
   There is a certain bias involved in the non-random selection of samples.

OR

State whether the following statement is true or false.
A discrete variable cannot take any fractional value.

2. Statistical calculations in classified data are based on: (Choose the correct alternative)   1
   - (A) The actual values of observations
   - (B) The upper class limits
   - (C) The lower class limits
   - (D) The class midpoints

3. The raw data can be grouped according to time. Such a classification is known as a _____. 1
   (Choose the correct alternative)
   (A) Chronological Classification
   (B) Spatial Classification
   (C) Qualitative Classification
   (D) Quantitative Classification

4. In a Frequency Distribution the classes should be formed in such a way that the values of 1
   observations are based on the_____ of each class for further statistical calculations. (Choose
   the correct alternative)
   (A) Class limits
   (B) Class interval
   (C) Class mark
   (D) Frequency

5. Fill up the blank with correct answers 1
   The unclassified data which are highly disorganised are called _____.

6. _____ is the most commonly used measure of central tendency. (Choose the correct 1
   alternative)
   (A) Arithmetic Mean
   (B) Median
   (C) Quartile
   (D) Mode

OR

   In case of an even number of observations which of the following is median? (Choose the
   correct alternative)
   (A) Any of the two middle-most value
   (B) The simple average of these two middle values
   (C) The weighted average of these two middle values
   (D) None of these

7. We want to know how the national income or the total income arising from what has been 1
   produced in the country (called the Gross Domestic Product or GDP) is distributed through
   wages (and salaries), profits and interest. This is the study of _____. (Choose the correct
   alternative)
   (A) Consumption
   (B) Production
   (C) Distribution
   (D) Statistics

8. Fill up the blank with correct answers 1
   Statistics is the collection, organisation, _____, analysis and _____ of numerical data.

9. There are various agencies which collect, process, tabulate and publish statistical data. These are used as _____. (Choose the correct alternative)　　1
   (A) Statistics
   (B) Primary data
   (C) Secondary data
   (D) Economic data

OR

The data collected on the height of a group of students after recording their heights with a measuring tape are: (Choose the correct alternative)
   (A) Primary data
   (B) Secondary data
   (C) Discrete data
   (D) Continuous data.

10. Which of the following is true for open-ended questions? (Choose the correct alternative)　　1
   (A) They do not allow individualised responses.
   (B) They are difficult to interpret and hard to score.
   (C) There are no variations in different questions.
   (D) They are highly structured

11. State any three functions of statistics.　　3

12. Prepare 'less than' cumulative frequency distribution of marks obtained out of 100 marks in Economics by 65 Students of Class XI.　　3

Marks	0-20	20-40	40-60	60-80	80-100
No. of Students	6	5	33	15	6

OR

Prepare 'more than' cumulative frequency distribution of marks obtained out of 100 marks in Economics by 65 Students of Class XI.

Marks	0-20	20-40	40-60	60-80	80-100
No. of Students	6	5	33	15	6

13. Find out the arithmetic mean from the following data by (a) direct method and (b) assumed mean method.　　4

X (₹):	15	20	30	22	25	18	40	50	55	65

OR

The following table shows the marks obtained by students in a certain examination. Calculate the average marks by assumed mean method.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of students	3	8	8	10	7	5	5	4

14. Determine the value of median from the following data series.　　4

Marks	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35-40
No. of students	4	6	10	10	25	22	18	5

15. Read the following Case Study carefully and answer the given questions: 4

Census of India is a decennial publication of the Government of India. It is published by Registrar General and is a very comprehensive source of secondary data. It relates to population size and various aspects of demographic changes in India. It may be of historical interest that though the population census of India is a major administrative function. The Census Act was enacted in 1948 to provide for the scheme of conducting population census with duties and responsibilities of census officers for developing systematic collection of statistics on the size of the population, its growth, etc.

Questions:
1. Data originally collected in the process of investigation are known as _____ (Primary data/ Secondary data).
2. State whether the following statement is true or false
   Census method needs less number of enumerators.
3. Census of India is carried out once in _____ years. (10/ 5)
4. Some important sources of secondary data are: (Choose the correct alternative)
   (A) Census of India and NSSO
   (B) International and primary sources
   (C) Private and primary sources
   (D) Government sources

16. (a) What is the basic difference between an 'continuous' and 'discrete' variable?   6
     (b) Construct a frequency array from the following data.

15	16	16	17	18	17	15	15	16	16
17	15	16	16	15	16	16	15	17	17
18	19	16	15	18	17	15	15	16	16
15	16	16	17	18	18	19	16	15	18
16	16	15	17	17	17	15	15	16	16

OR

(a) What is the basic difference between an 'inclusive' and 'exclusive' frequency distribution?

(b) Construct an inclusive frequency distribution from the following data keeping the class interval as 6.

24	4	18	28	6	36	1	7	27	8	33
15	22	8	14	29	16	23	6	9	23	1
9	26	9	27	32	2	15	21	4	11	1
4	13	15	12	18	17	10	3	27	2	18

17.   (a) What is a pie diagram?   6

        (b) The taste of 500 people of a society for different type of food was recorded as given
            in the following table. Draw a pie diagram to represent the data.

Type of food	North Indian	South Indian	Chinese	Italian	Mexican
Number of People	150	100	125	75	50

INTRODUCTORY MICROECONOMICS (40 Marks)

18.   Read the following statements assertion and reason choose one of the correct alternatives given   1
        below:

        Assertion (A): Marginal utility can never be negative.

        Reason (R): Total utility is maximum when marginal utility is 0.

        Alternatives:
        (A)   Both Assertion (A) and Reason (R) are true and Reason (R) is the correct
                explanation of the explanation of Assertion (A).
        (B)   Both Assertion (A) and Reason (R) are true but Reason (R) is not the correct
                explanation of Assertion (A).
        (C)   Assertion (A) is a true but Reason (R) is false
        (D)   Assertion (A) is false but Reason (R) is true

19.   A consumer is consuming two goods X and Y and is in equilibrium. The prices of X and Y are   1
        ₹10 and ₹20 respectively and the marginal utility of good Y is 50 utils. What will be marginal
        utility of good X? (Choose the correct alternative).
        (A)   100 utils
        (B)   25 utils
        (C)   250 utils
        (D)   4 utils

20.   Law of demand States the _____relationship between price and quantity demanded.   1
        (Choose the correct alternative).
        (A)   Inverse
        (B)   Positive
        (C)   Proportional
        (D)   Equal

21.   During short period, production can be increased through: (Choose the correct alternative).   1
        (A)   Greater application of fixed factors
        (B)   Greater application of variable factors
        (C)   Greater application of all factors of production
        (D)   Greater application of production management

22. Which of the following is a central problem of every economy? (Choose the correct alternative).   1
    (A)   Abundance of resources
    (B)   Scarcity of economic resources
    (C)   Poverty
    (D)   Moral and ethical values

OR

Microeconomics theory deals with
    (A)   Economic behaviour of individual economic decision making units
    (B)   Economy as a whole
    (C)   Trade relations
    (D)   Economic growth of the society

23. Per unit production of the variable factor input is called: (Choose the correct alternative).   1
    (A)   Total product
    (B)   Marginal product
    (C)   Average product
    (D)   Final product

24. The central problem of how to produce is resolved by: (Choose the correct alternative).   1
    (A)   Demand and supply of factor inputs
    (B)   Demand and supply of goods
    (C)   Relative prices and availability of factor of production
    (D)   Government intervention

25. Which of these statement is true about production possibility curve (PPC/PPF): (Choose the   1
    correct alternative).
    (A)   It shows various combinations of two goods which yield same level of satisfaction
    (B)   It shows various combination of two goods which an economy can produce with a
           given amount of resources
    (C)   It shows various combination of two goods which an economy can produce with a
           given budget
    (D)   It shows various combination of two goods which an economy can produce with a
           given time

26. If with the rise in price of good Y, demand for good X rises, the two goods are: (Choose the   1
    correct alternative).
    (A)   Substitutes
    (B)   Complements
    (C)   Not related
    (D)   Jointly demanded

OR

If due to fall in the price of good X, demand for good Y rises, the two goods are: (Choose the
correct alternative).
    (A)   Substitutes
    (B)   Complements
    (C)   Not related
    (D)   Competitive

27. A movement along the demand curve for soft drinks is best described as: 1
    (A)   An increase in demand.
    (B)   A decrease in demand.
    (C)   A change in quantity demanded.
    (D)   A change in demand.

OR

Which of the following is not a determinant of individual demand function? (Choose the correct alternative).
    (A)   Price
    (B)   Distribution of Income
    (C)   Income of Consumer
    (D)   Taste and preferences of the consumer

28. Why marginal opportunity cost must rise as resources are shifted from the production of good 3
    one good to the production of the other good when the given resources are fully and efficiently
    employed?

29. Calculate average product and marginal product from the following production data 3

Units of labour	1	2	3	4	5	6	7
Total Product	20	36	48	56	60	60	56

OR

The following table gives the marginal product schedule of labour. Find the total product and average product schedules. It is given that the total product is zero at zero level of labour employment.

Units of labour	1	2	3	4	5	6
MP of labour	3	5	7	5	3	1

30. **Read the following Case Study carefully and answer the given questions:** 4

If our income rises, we generally tend to buy more of the goods. More income would mean more pens, more shirts, more shoes, more cars and so on. But there are exceptions. If initially, you are buying coarse grain, how would you take your increase in income now? Perhaps, as a first step, you would discard the consumption of inferiors. Surely, this happens in certain states of India where the rich minority eats wheat while the poor majority eats Bajra as their staple food.

Questions:
   1. How much a consumer can buy depends upon _____.
      (A)   The prices of available goods in the market
      (B)   The Income of the consumer
      (C)   The quality of the good offered by seller
      (D)   The prices of goods and the income of consumer
   2. The law of demand does not apply to _____ goods. (Normal/ Giffen)
   3. Inferior goods are those whose income effect is_____. (Negative/ Positive)

4. A fall in income of the consumer (in case of normal goods) will cause:
   (A)   Rightward shift of the demand curve
   (B)   Leftward shift of the demand curve
   (C)   Upward movement on the demand curve.
   (D)   Downward movement on the demand curve

31.   A 5% fall in the price of Good X, leads to a 10% rise in its quantity demanded. A 20% rise in   4
      price of Good Y, leads to a 10% fall in its quantity demanded. Calculate the price elasticities
      of demand of the two goods. Out of the two goods, which one is more elastic?

OR

Demand for a good is unitary elastic. The quantity demanded of this good at a price of ₹10 is
80 units. How much quantity will be demanded when the price rises by 20%? Calculate.

32.   Using a diagram, explain what happens to the production possibility curve when there is a loss   4
      of production facilities in a region due an earthquake.

33.   Explain the condition of consumer's equilibrium in case of two commodities (Law of Equi-   6
      Marginal Utility). What happens when the marginal utilities of the two goods are not equal?

OR

Explain the conditions of consumer's equilibrium with help of indifference curve
analysis/ordinal utility approach. Use diagram

34.   How do the following factors influence the price elasticity of demand for a commodity: 6
      a. Nature of the good
      b. Availability of close substitutes of a good
      c. Share in total expenditure on a good

****END OF THE QUESTION PAPER****