SAMPLE PAPER-1 (solved)

ECONOMICS (Theory)

Class – XI

Time allowed: 3 hours Maximum Marks: 90

General Instructions:

a) All questions in both the sections are compulsory.
b) Marks for questions are indicated against each.
c) Question No 1-3 and 13-14 are very short-answer questions carrying 1 mark each. They are required to be answered in one sentence each.
d) Question No 4-8 and 15-18 are short-answer questions carrying 3 marks each. Answer to them should not normally exceed 60 words each.
e) Questions No 9 and 19-20 are also short-answer questions carrying 4 marks each. Answer to them should not normally exceed 70 words each.
f) Questions No 10-12 and 21-23 are long-answer questions carrying 6 marks each. Answer to them should not normally exceed 100 words each.
g) Question No 24 is OTBA carrying 10 marks (5 marks each).
h) Answer should be brief and to the point and the above word limit be adhered to as far as possible.

Section A

STATISTICS FOR ECONOMICS

1: Define classification.

2: Name the commonly used measure of central tendency.

3: When is rank correlation method used?

4: Economics is a science? Give reasons.

5: Prepare a frequency distribution by inclusive method taking class interval of 7 from the following data:

28,17,15,22,29,21,23,27,18,12,7,2,9,4,6,1,8,3,10,5,20,16,12,8,4,33,27,21,15,9,3,36,27,18,9,2,4,6

32,31,29,18,14,13,15,11,9,7,1,5,37,32,28,26,24,20,19,25,19,20

6: Calculate the median and third quartile using the following data:

Mid-points marks	5	15	25	35	45	55	65	75
No. of students	3	10	17	7	6	4	2	1

7: The sum of 10 values is 100 and the sum of their squares is 1090.find the coefficient of variation.

8: Explain any 3 mathematical properties of the coefficient of correlation.

9: Compute index numbers for the years 2000 to 2005 from the following data (base year 2000).

Year	2000	2001	2002	2003	2004	2005
Price	10	14	16	20	22	24

10: Distinguish between random sampling and systematic sampling. Give suitable examples.

11: Construct index numbers of prices of the items in the year 2013 from the following data by:

- Laspeyre's method
- Paasche's method

Commodities	**Price (P_0) (2006)**	**Quantity (q_0)(2006)**	**Price (p_1) (2013)**	**Quantity (q_1) (2013)**
A	10	30	12	50
B	8	15	10	25
C	6	20	6	30
D	4	10	6	20

12: A batsman is to be selected for a cricket team. The choice is between X and Y on the basis of their five previous scores which are:

X	25	85	40	80	120
Y	50	70	65	45	80

a) Calculate coefficient of standard deviation, variance and coefficient of variation.

b) Which batsman should be selected if we Want:

i) A high run scorer,

ii) A more reliable batsman in the team.

SECTION B

INDIAN ECONOMIC DEVELOPMENT

13: Define a plan?

14: What do you mean by globalization?

15: Discuss the important reforms introduced in the foreign exchange market?

16: Discuss any 3 points in favour of privatization.

17: What are the three principal dimensions of the objective of social justice?

18: Explain the 'Great Leap Forward' campaign of China as initiated in 1958.

19: Mention the important objectives of land reforms in India?

20: Discuss the fiscal reforms introduced under the New Economic Policy of 1991.

21: Compare the demographic indicators of India with China and Pakistan.

22: What were the main causes of India's agricultural stagnation during the colonial period?

23: a) How is china's experience different from that of India and Pakistan in industrial development?

b) What is the key measurement of human development? [Value Based Question]

24: OTBA Questions (10 Marks)

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ECONOMICS (Theory)

Class – XI

MARKING SCHEME

STATISTICS FOR ECONOMICS

1. Classification is the grouping of related facts into different classes.
2. Arithmetic mean.
3. It is used in case of qualitative variables such as beauty, wisdom, virtue etc.
4. Following arguments are given in favour of economics as a science.
   i) Systematized study
   ii) Scientific Laws.
   iii) Cause and effect relationship.
5. Frequency Distribution

   (Inclusive Method)

Class	Tally Bars	Frequency(f)
0-7	𝍸 𝍸 𝍸	15
8-15	𝍸 𝍸 𝍸	15
16-23	𝍸 𝍸 ||||	14
24-31	𝍸 𝍸 |	11
32-39	𝍸	5
	Total	60

6.

Marks X	No of Students (f)	Less than C.F
0-10	3	3
10-20	10	13
20-30	17	30
30-40	7	37
40-50	6	43
50-60	4	47
60-70	2	49
70-80	1	50

Calculation of median:

$$M = L_1 + \frac{\frac{N}{2} - c.f}{f} \times c$$

$$M = 20 + \frac{25-13}{17} \times 10$$

$$M = 27.05$$

Calculation of third quartile:

$$Q_3 = L_1 + \frac{\frac{3N}{4} - c.f}{f} \times C$$

$$Q_3 = 40 + \frac{37.7-37}{6} \times 10$$

$Q_3 = 40.83$

7. N = 10, $\sum x = 100$, $\sum x^2 = 1090$

$$C.V = \frac{\sigma_X}{\bar{X}} \times 100$$

$$\text{Mean} = \frac{\sum X}{N}$$

$$\text{Mean} = \frac{100}{10} = 10$$

$$\sigma_x^2 = \frac{x^2}{n} - \left(\bar{x}\right)^2$$

$$\sigma_x^2 = \frac{1090}{10} - 10^2$$

$= 109 - 100 = 9$

$\sigma_X = \sqrt{9} = 3$. Therefore $C.V = \frac{3}{10} \times 100 = 30$

8. 1. Coefficient of correlation lies between -1 and +1.
   2. It is independent of change of origin and scale.
   3. The converse of the theorem i.e. r= 0, is not true.

9.

Year	Price in Rs	Index No $\frac{P1}{P0}\times 100$
2000	10	100
2001	14	$\frac{14}{10}\times 100=140$
2002	16	$\frac{16}{10}\times 100=160$
2003	20	$\frac{20}{10}\times 100= 200$
2004	22	$\frac{22}{10}\times 100= 220$
2005	24	$\frac{24}{10}\times 100= 240$

10. Random Sampling:

1. Free from personal bias.
2. Very simple and straight forward method.
3. Each and every item of the universe stands equal chance of being selected.

Systematic Sampling:

1. Every item does not get equal chance of being selected.
2. Sample is easily determined.
3. Hardly any possibility of personal bias.

11.

p_0q_0	p_0q_1	p_1q_0	p_1q_1
300	500	360	600
120	200	150	250
120	180	120	180
40	80	60	120
∑580	∑960	∑690	∑1150

Laspeyre's price index: $P_{01}=\frac{\sum p_1q_0}{\sum p_0q_0}\times 100 = \frac{690}{580}\times 100 = 118.96$

Paasche's price index: $P_{01}=\frac{\sum p_1q_1}{\sum p_0q_1} * 100 = \frac{1150}{960} * 100 = 119.79$

12.

Batsman Score X	X - $\bar{X}$ X	$(X - \bar{X})^2$ x^2	Batsman Scores Y	X - $\bar{Y}$ y	$(X - \bar{Y})^2$ y2
25	-45	2025	50	-12	144
85	15	225	70	8	64
40	-30	900	65	3	9
80	10	100	45	-17	289
120	50	2500	80	18	324
$\sum$ X = 350		$\sum x^2$ = 5750	$\sum$ Y = 310		$\sum$ y2 = 830

Batsman X	Batsman Y
Arithmetic Mean $\bar{X} = \frac{\sum X}{N}$ $\sum$ X = 350, N = 5 $\bar{X} = \frac{350}{5} = 70$ Average Score = 70 Runs	$\bar{Y} = \frac{\sum y}{n}$ $\sum Y = 310, N = 5$ $\bar{Y} = \frac{310}{5} = 62$ Average Score=62 Runs
Standard Deviation $\sigma_X = \sqrt{\frac{\sum x^2}{N}}$ $\sum x^2 = 5750$ and N=5 $\sigma_X = \sqrt{\frac{5750}{5}} = \sqrt{1150}$ σ_X = 33.91	$\sigma_y = \sqrt{\frac{\sum y^2}{N}}$ $\sum y^2 = 830$ and N=5 $\sigma_y = \sqrt{\frac{830}{5}} = \sqrt{166}$ σ_y = 12.88
Coefficient of S.D Coefficient of σ_x = $= \frac{coefficient\ of\ x}{\bar{X}}$ $= \frac{33.91}{70} = 0.484$	Coefficient of σ_y = $= \frac{coefficient\ of\ y}{Y}$ $= \frac{12.88}{62} = 0.207$

Variance $\sigma_X^2 = \frac{\sum x^2}{N} = \frac{5750}{5} = 1150$	$\sigma_y^2 = \frac{\sum y^2}{N} = \frac{830}{5} = 166$
Coefficient of Variation C.V $\frac{\sigma_X}{\bar{X}} \times 100 = \frac{33.91}{70} \times 100$ $= 48.44\%$	C.V $= \frac{\sigma_y}{\bar{Y}} \times 100 = \frac{12.88}{62} \times 100$ $= 20.77\%$

(b) i) Batsman X should be selected as a higher run scorer as his average score (70 runs) is greater than the average score of Y (62 runs).

ii) Batsman Y is a more reliable batsman in the team because his coefficient of variation (C.V=20.77%) is less than that of batsman x (C.V=48.44%).

13. Plan is a document showing detailed scheme, program and strategy, worked out in advance for fulfilling an objective.

14. Integrating the national economy with the world economy through removal of barriers on international trade movements.

15. 1. Devaluation of rupee.
2. Market determination of exchange rate.

16. 1. Production in budgetary deficit.
2. Competitive environment.
3. Better managerial efficiency.
4. Quick decision making.
(Any other relevant point)

17. Social justice has three principal dimensions:
1. To improve standard of living of weaker section of the population.
2. To reduce income inequalities.
3. To reduce regional and state inequalities.

18. GLF Campaign was initiated in 1958, which aimed at industrializing the country on a massive scale.

1. People were encouraged to set up industries in their backyards.
2. Severe draught caused havoc in China killing about 30 million people.
3. When Russia had conflict with China, it withdrew its professionals who had been earlier been sent to China to help in the industrialisation process.

19. 1. To make provision for more rational use of scarce land resources.
2. To raise the production level by motivating farmers and by giving incentives.
3. To raise standard of living of the rural poor through re-distributive packages and programmes.
4. To attain planned development of agriculture sector on long term basis.

20. Fiscal reforms are mainly consists of tax reforms:
    1. Reduction in taxes.
    2. Reforms in indirect taxes.
    3. Simplification of process.

21. Population – China (1303.7 M) is the most populous country in the world and India (1103.6 M) is the second most populous country. Population of Pakistan is very less (162.4 M people).
Growth Rate of Population: China's growth rate of population is lowest (1%) as compared to India (1.7 %) and Pakistan (2.5 %).
Density of Population: Density of Population of China is the lowest (138 persons per sq km) as compared to India (358 persons per sq km) and Pakistan (193 persons per sq km).
Sex Ratio: Sex ratio is lowest in Pakistan with 922 females per 1000 males. In India and China, the corresponding figures are 933 and 937.
Organisation: Organisation is high in both Pakistan (33.4 %) and China (36.1 %). In India, only 28 % of its people live in Urban Area.

22. The stagnation in the agriculture sector was caused due to the following reasons :

1. Land settlement system.
2. Commercialisation of agriculture.
3. Low level of productivity.
4. Adverse affects of partition.

23. a) 1. In 2003, secondary sector contributed highest to China's GDP at 53 % , whereas in India and Pakistan, the share of secondary sector was 26 % and 23 % respectively.

2. China had been shifting their employment and output from agriculture to manufacturing and then to services. In India and Pakistan, the shift was taking place directly to the service sector.

3. The proportion of workforce engaged in manufacturing in India and Pakistan in 2000 was low at 16 % and 18 % where as 27 % of population was engaged in China.

b) The per capita income is coupled with better health, education and social justice is the key measure of human development.