SAMPLE PAPER- 5 (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:    The most accurate mode of data presentation is:

   A) Diagrammatic method. B) Tabulation. C) Textual method. D). None of these.

2:    Graphic location of mode is done with reference to:

   A) Cumulative frequency curve. B) Frequency Polygon. C) Frequency curve. D) Histogram

3:    A scatter diagram:

   A) Is a statistical test. B) Must be linear. C) Must be curvilinear. D) Is a graph of X and Y values.

4:    Discuss the main characteristic of scarcity definition given by Robbins.

5:    In 2007, out of a total of 2000 applicants in a college, 200 were from commerce background. The no of girls was 750, out of which 330 were from science stream. In 2008, the total no of applicants was 3500 of which 2200 were boys. The no of students from science stream was 1100 of which 610 were girls. Tabulate the given information.

6: Find the median of the following data:

Age greater than (in years)	0	10	20	30	40	50	60	70
No of person	230	218	200	165	123	73	28	8

7: Calculate the standard deviation by:

A) Actual mean method. B) Direct method. C) Short cut method.

3, 4, 6, 7, 10

8: A) If there is high variability in the distribution of income and wealth of the country then which value is compromised?

B) Mean and standard deviation of two distributions of 100 and 150 items are 50, 5 and 40, 6 respectively. Find the standard deviation of all the 250 items taken together.

9: In a singing competition, two judges rank the seven contestants as follow:

Judge 1	5	4	7	3	1	2	6
Judge 2	6	5	2	1	3	4	7

Calculate the coefficient of rank correlation.

10: A) Distinguish between Census method and Sampling method.

B) Distinguish between Primary data and Secondary data?

11: Calculate the price index no by: a) Laspeyre's method b) Paasche's method c) Fisher's ideal method:

	Base Year (1999)		Current Year (2008)	
Commodity	Price (Rs)	Value(Total Expenditure)	Price (Rs)	Value (Total Expenditure)
A	2	200	3	300
B	8	72	10	100
C	12	60	15	90
D	7	49	10	80

12. The number of goals scored by two teams in a football session were as under:

No of goals scored	0	1	2	3	4	5
No of matches (Team A)	15	10	7	5	3	2
No of matches (Team B)	20	10	5	4	2	1

Which team is more consistent?

SECTION B

INDIAN ECONOMIC DEVELOPMENT

13: Name some notable economist, who estimated India's per capita income during the colonial period.

14: What is the most important function of RBI?

15: How are bilateral trade agreements different from multilateral trade agreements? Who facilitates these agreements?

16: Was there any positive impact of the British rule in India? Explain.

17: State any four failures of the Indian plans.

18: Discuss the areas where India has an edge over Pakistan?

19: Discuss the principal components of Industrial Policy Resolution, 1956.

20: Explain the salient features of trade policy after liberalization.

21: a). How was structural transformation different in China as compared to India and Pakistan?
     b).What do you mean by one child policy in china?

22: explain the salient features of the strategy of industrial growth during the period 1950-90.

23 A) What do you mean by Great Leap Forward?
     B). What is the condition of liberty indicators in India as compared to China and Pakistan?
     C). What are the areas where Pakistan has an edge over India?
     D) What was the major reason for the low population growth in China?

24: OTBA Questions (10 Marks)

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MARKING SCHEME

STATISTICS FOR ECONOMICS

1. Tabulation.

2. Histogram.

3. It is a graph of X and Y values.

4. Its characteristics are:

   a) Unlimited wants: Man has unlimited wants or ends, they can never be fully satisfied. No sooner a want is satisfied, a new want emerges.

   b) Scarcity of resources: It refers to the limitation of supply in relation to demand for a commodity. Scarcity is universal and applies to all individuals, organization and countries.

   c) Alternative uses: resources are not only scarce but they can also be put to various uses. It makes choice among resources more important.

5. Table 5: Distribution of applicants in college (2007 and 2008) on the basis of sex and stream

Stream	2007			2008			TOTAL		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
Science	470	330	800	490	610	1,100	960	940	1,900
Commerce	780	420	1,200	1,710	690	2,400	2,490	1,110	3,600
Total	1,250	750	2,000	2,200	1,300	3,500	3,450	2,050	5,500

6. We will first convert the cumulative frequencies into simple frequencies.

Age (in years)	No. of persons (f)	c.f
0-10	12	12
10-20	18	30
20-30	35	65
30-40	42	107
40-50	50	157

50-60	45	202
60-70	20	222
70 and above	8	230
	$N = \sum X = 230$	

$$M_e = \frac{N}{2} = \frac{230}{2} = 115^{th}$$

115th item lies in the group 50-60

$l_1 = 40, c.f = 107, f = 50, i = 10$

$$M_e = l_1 + \frac{\frac{N}{2} - c.f}{f} \times i$$

$$M_e = 40 + \frac{115 - 107}{50} \times 10 = 41.6 \text{ years}$$

7.

Actual mean method			Direct method		Short cut method		
X	X- $\bar{X}$ =x	x^2	X	X^2	X	d=X-A (A=6)	d^2
3	-3	9	3	9	3	-3	9
4	-2	4	4	16	4	-2	4
6	0	0	6	36	6	0	0
7	1	1	7	49	7	1	1
10	4	16	10	100	10	4	16
$\sum x = 30$		$\sum x^2 = 30$	$\sum X = 30$	$\sum X^2 = 210$	N=5	$\sum d = 0$	$\sum d^2 = 30$

Actual mean method	Direct method	Short- cut method
$\bar{X} = \dfrac{\sum X}{N} = \dfrac{30}{5} = 6$ $\sigma_X = \sqrt{\dfrac{\sum x^2}{N}} = \sqrt{\dfrac{30}{5}} = \sqrt{6} = 2.45$	$\sigma_X = \sqrt{\dfrac{\sum X^2}{N} - (\bar{X})^2}$ $= \sqrt{\dfrac{210}{5} - (6)^2} = \sqrt{6} = 2.45$	$\sigma_X = \sqrt{\dfrac{\sum d^2}{N} - \left(\dfrac{\sum d}{N}\right)^2}$ $= \sqrt{\dfrac{30}{5} - \left(\dfrac{0}{5}\right)^2} = \sqrt{6} = 2.45$

8. A) The high variability in the distribution of income and wealth shows that there are many people who are living at a very low income while there are few people who have amassed huge wealth and taking advantage of luxuries of life. In this case, the value of equity is compromised in the society as high level of disparity of income and wealth makes it prone to social unrest.

8. B).

$$Combined\ \text{Mean} = \frac{N_1\overline{X}_1 + N_2\overline{X}_2}{N_1 + N_2}$$

$$= \frac{100 \times 50 + 150 \times 40}{100 + 150} = \frac{11000}{250} = 44$$

Calculation of combined standard deviation

$$\sigma_{1,2} = \sqrt{\frac{N_1\sigma_1^2 + N_2\sigma_2^2 + N_1 d_1^2 + N_1 d_2^2}{N_1 + N_2}}$$

$$d_1 = \overline{X}_1 - \overline{X}_{1,2}\ \text{and}\ d_2 = \overline{X}_2 - \overline{X}_{1,2}$$

$$d_1 = 50 - 44 = 6\ \text{and}\ d_2 = 40 - 44 = -4$$

$$\sigma_{1,2} = \sqrt{\frac{100(5)^2 + 150(6)^2 + 100(6)^2 + 150(-4)^2}{100 + 150}}$$

$$\sigma_{1,2} = \sqrt{\frac{2500 + 5400 + 3600 + 2400}{250}}$$

$$= \sqrt{55.6}$$

$$= 7.456$$

9.

Rank by judge 1 (R_1)	Rank by judge 2 (R_2)	$D = R_1 - R_2$	D^2
5	6	-1	1
4	5	-1	1
7	2	5	25
3	1	2	4
1	3	-2	4
2	4	-2	4
6	7	-1	1
N=7			$\sum D^2 = 40$

$$r_k = 1 - \frac{6\sum D^2}{N^3 - N} = 1 - \frac{6(40)}{7^3 - 7} = 1 - \frac{240}{336} = 0.285$$

There is low degree of positive correlation

10. A).

Basis	Census Method	Sampling Method
Nature of Enquiry	Extensive enquiry is conducted as each and every unit of the population is studied.	Limited enquiry is conducted as only few units of the population are studied.
Economy	It requires large amount of money, time and labour.	Relatively less money, time, and labour are required.
Suitability	It is more suitable if population is heterogeneous in nature.	It is more suitable if population is homogeneous in nature.
Reliability and accuracy	Results are quite reliable and accurate under Census method.	Under sampling method, results are less reliable and accurate.
Nature of error	In census method, the only error that may arise in the collection of data is error of bias.	Sampling method gives rise to error of sampling apart from error of bias.

B).

Basis	Primary Data	Secondary Data
Originality	Primary data are original because they are collected by investigator himself.	Secondary data are not original since investigator makes use of the data collected by other agencies.
Source	Primary data are collected by some agency or person by using the method of data collection.	Secondary data are already collected and processed by some person or agency and is ready for use.
Time factor	It requires longer time for data collection.	Secondary data requires less time.

11.

	Base Year(1999)		Current year(2008)		p_0q_0	p_0q_1	p_1q_0	p_1q_1
Commodity	Price(Rs) (p_0)	Quantity (q_0)	Price (Rs) (p_1)	quantity (q_1)				
A	2	100	3	100	200	200	300	300
B	8	9	10	10	72	80	90	100
C	12	5	15	6	60	72	75	90
D	7	7	10	8	49	56	70	80
					$\sum = 381$	$\sum = 408$	$\sum = 535$	$\sum = 570$

i) laspeyre's method

$$p_{01} = \frac{\sum p_1q_0}{\sum p_0q_0} \times 100$$

$$= \frac{535}{381} \times 100 = 140.42$$

ii) paasche's method

$$p_{01} = \frac{\sum p_1q_1}{\sum p_0q_1} \times 100$$

$$= \frac{570}{408} \times 100 = 139.70$$

iii) fisher's method

$$p_{01} = \sqrt{\frac{\sum p_1q_0}{\sum p_0q_0} \times \frac{\sum p_1q_1}{\sum p_0q_1}} \times 100$$

$$= \sqrt{\frac{535}{381} \times \frac{570}{408}} \times 100 = 140.05$$

12.

(X_A)	Team A $X_A - \bar{X}(X_A)$	X_A^2	(X_B)	Team B $X_B - \bar{X}(X_B)$	X_B^2
15	8	64	20	13	169
10	3	9	10	3	9
7	0	0	5	-2	4
5	-2	4	4	-3	9
3	-4	16	2	-5	25
2	-5	25	1	-6	36
$\sum = 42$		$\sum = 118$	$\sum = 42$		$\sum = 252$

Team	Team B
$X_A = \dfrac{\sum X_A}{N} = \dfrac{42}{6} = 7$ $\sigma_A = \sqrt{\dfrac{\sum X_A^2}{N}} = \sqrt{\dfrac{118}{6}} = 4.43$ C.V. (Team A) $= \dfrac{\sigma}{X_A} \times 100$ $= \dfrac{4.43}{7} \times 100 = 63.29\%$	$X_B = \dfrac{\sum X_B}{N} = \dfrac{42}{6} = 7$ $\sigma_B = \sqrt{\dfrac{\sum X_B^2}{N}} = \sqrt{\dfrac{256}{6}} = 6.48$ C.V. (Team B) $= \dfrac{\sigma}{X_B} \times 100$ $= \dfrac{6.48}{7} \times 100 = 92.57\%$

C.V. of Team A is less, so Team A is more consistent.

INDIAN ECONOMIC DEVELOPMENT

13. Dada Bhai Naoroji, V.K. R.V.Rao and R. C.Desai.

14. The most important function of RBI is to issue the currency and to undertake credit control measures.

15. Bilateral trade agreements refer to trade agreements of one country with the other. Or, these are trade agreements between any two countries of the world. Multilateral trade refers to trade agreements of one country with many countries of the world. Or, these are trade agreements among many countries of the world.

WTO facilitates bilateral as well as multilateral trade agreements. It is focusing on the competition in the international market and free access to markets across different countries of the world.

16. 1. Commercial agriculture became a practical proposition .it implied a good breakthrough in agriculture, even when it challenged self sufficiency in food grain production.

    2. Spread of railways and roadways opened up new opportunities of economic and social growth. It also implied greater cultural affinity across different parts of the country,

    3. There was a significant transition from barter system of exchange to monetary system of exchange.

    4. The British raj in India left a legacy of an efficient administrative set up.

    (ANY OTHER RELEVANT POINTS)

17. 1. Alleviation of poverty was the central theme of planning. On an average, a normal healthy person needs 2508 calories of food per day, but in India it provides only 2400 calories. In India, 21.8% of population still lives below the poverty line. These are those people who are not getting even the basics of life including food, shelter and clothing.

    2. Owing to mounting inflation, real income of the people has tended to shrink and economic divide between haves and haves-nots has tended to swell overtime. First plan is the only exception when price level came down; in all other plans the prices recorded a steep rise.

    3. While more and more opportunities of employment have been generated, challenge of unemployment has not subsided.

    4. Development of infrastructure continues to be inadequate; despite 60 years of planning.Cosequently actual growth has failed to match the targets of growth.

    (ANY OTHER RELEVANT POINTS)
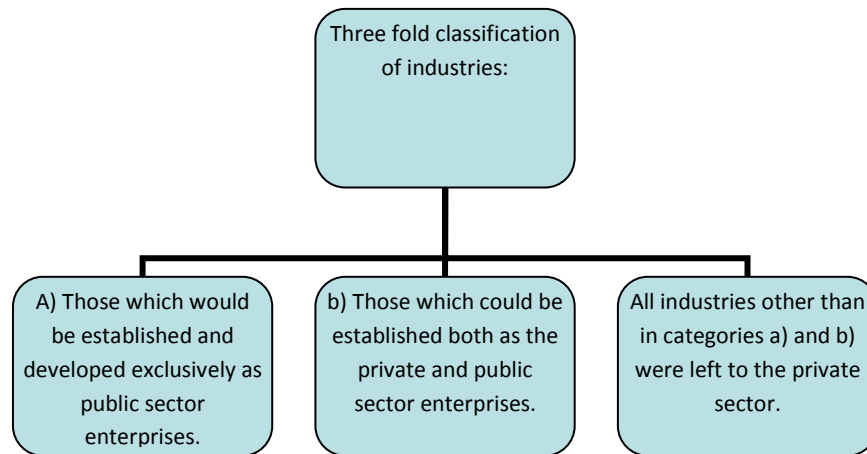
18. There is little doubt that skilled manpower and research and development institututions in India are far superior to those in Pakistan. India has shown a remarkable breakthrough in the export of software after economic reforms of 1991.human capital formation in India has made a substantial contribution to the pace of growth and development.

    Indian scientists excel in the areas of defense technology, space research, electronics and avionics etc.

    India also has better record of investment in education. Rapid decline in total fertility rates in India has reduced population growth rate to 1.7 % compared to 2.5% in Pakistan.

Issues of health facilities in general and infant mortality in particular are better addressed in India.

19.   1.

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                    ┌─────────────────────┐
                    │ Three fold classification │
                    │   of industries:    │
                    │                     │
                    │                     │
                    └─────────────────────┘
                              │
         ┌────────────────────┼────────────────────┐
┌──────────────────┐ ┌──────────────────┐ ┌──────────────────┐
│ A) Those which would │ │ b) Those which could be │ │ All industries other than │
│ be established and   │ │ established both as the │ │ in categories a) and b) │
│ developed exclusively as │ │ private and public │ │ were left to the private │
│ public sector        │ │ sector enterprises. │ │ sector. │
│ enterprises.         │ │                  │ │                  │
└──────────────────┘ └──────────────────┘ └──────────────────┘
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2.   Industries in the private sector could be established only through a license from the government. The basic idea was to encourage the establishment of industry in backward regions, with a view to encouraging regional equality.

3.   While the government was to assume a leading role in the process of industrialization ,the private entrepreneurs were offered many types of industrial sops for establishing industry in the backward regions of the country.

20.   1.Import quotas have been done away with.

2. Policy of import licensing has almost been scrapped.

3. There is a comprehensive moderation of import duty to enhance competitiveness in the domestic market.

4. Export duty has been withdrawn to enhance competitiveness of Indian goods in the international market.

Briefly, trade policy after liberalization is to facilitate integration of the Indian markets with rest of the world with a view to enhance economic growth through global competition rather than non competitive controls and protection.

21.   a) china has succeeded in placing greater reliance on industrial sector compared to India and Pakistan. It is perhaps owing to GLF a campaign launched in china in 1958 focusing on widespread industrialization of the country, encouraging people to set-up household industries in their backyard, and policy of reforms and opening up launched in 1978 which gave a big push to china's manufacturing exports.

b) One child policy in china, adopted since 1979, has reduced the growth rate of population to nearly half, from 1.33% in 1979 to 0.64% in 2005.controlling its population growth rate, china can now focus on quality of life rather than sustenance of its people.

22.   1. Public enterprises were to play a central role in the process of industrialization.

2. Private enterprises were to play only a secondary role in the process of industrialization and that too under permit – license raj.

3. Process of industrialization was to proceed in tandem with the key policy instrument of import substitution. It was to foster the objective of growth with self reliance.

4. As far as possible, domestic industry was to be protected from foreign competition. It was realized that protection would accelerate the pace of growth with self reliance.

5. Large scale industry was to be developed with a view to building in infrastructural base in the country.

(Any other relevant points)

23.   A.   A campaign launched in china in 1958 focusing on widespread industrialization of the country, encouraging people to set-up household industries in their backyard.

B.   It may be argued that HDI rating of India is low as compared with china, partly because HDI does not include parameters of liberties of life, like political liberty of participating in state administration, and social liberty of freedom of speech, and related human rights. If these indicators are also included in the construction of HDI, India's ranking is likely to considerably improve, as these parameters are placed fairly high in India, compared with china and Pakistan.

C.   Migration of people from rural to urban areas, access to improved water sources and reduction in BPL population to 13.4% contrasting with India's 21.8% in 2004-05.

D.   One child policy adopted since 1979, has reduced the growth rate of population to nearly half. Controlling its population growth rate, china can now focus on quality of life rather than sustenance of its people.