
Sample Paper-03 (2016-17)
Economics
Class - XI

Time allowed: 3 hours

Maximum Marks: 90

General Instructions:

- (a) All questions are compulsory.
 - (b) Question no. **1 to 3** and **13 to 14** are very short answer type questions carrying **1 mark** each.
 - (c) Question no. **4 to 8** and **15 to 18** are short answer type questions carrying **3 marks** each.
 - (d) Question no. **9** and **19 to 20** are also short answer type questions carrying **4 marks** each.
 - (e) Question no. **10 to 12** and **21 to 23** are long answer type questions carrying **6 marks** each.
 - (f) Question no. **24 to 25** are **Open Text Based Assessment** questions carrying **5 marks** each.
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Section A

1. What is meant by bar diagrams?
2. Pocket money of 8 students is Rs. 6, 12, 18, 24, 30, 36, 42 and 48 calculate mean.
3. Define primary data.
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. Find out the quartile deviation for the given individual observations 10, 20, 30, 40, 50, 60, 70.
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. Construct index number of prices of the items in the year 2013 from the following data by:
(a) Laspeyre's method
(b) Paasche'

Commodities	Price (P_0)	Quantity	Price (P_1)	Quantity (Q_1)
A	10	30	12	50
B	8	15	10	25
C	6	20	6	30
D	4	10	6	20

12. Calculate the coefficient of variation of the given continuous series.

More than	0	10	20	30	40	50	60	70
Cumulative Frequency	100	90	75	50	20	10	5	0

SECTION B

13. What is meant by foreign exchange reserve?

14. What is the meaning of bilateral trade?

15. Mention the major functions of WTO.

16. Mention any 3 causes, which were responsible for economic reforms (1990-91 crisis).

17. "Green revolution experienced the success in two phases." Comment.

18. Mention the various indicators of human development.

19. Why was goal of equity not fully achieved even after abolition of intermediaries?

20. Discuss the trade and investment policy reforms introduced under the new economic policy.

21. "The economies of China, India and Pakistan differ in terms of sectoral growth." Comment.

22. (a) Discuss any four points of importance of small-scale industries.

(b) After independence, India adopted the system of mixed economy where both private and public sectors co-exist and contribute to the development of the nation. Which value is reflected in such economic system?

23. Compare India and China on the basis of:

(a) Below poverty line people

(b) Growth rate of population

(c) Growth rate of GDP.

24. **OTBA Question**

25. **OTBA Question**

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Answer

Section A

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

$$\begin{aligned} 2. \bar{X} &= \frac{X_1 + X_2 + X_3 + \dots + X_N}{N} \\ &= \frac{6 + 12 + 18 + 24 + 30 + 36 + 42 + 48}{8} \\ &= \frac{216}{8} = 27 \end{aligned}$$

3. Data collected by the investigator for his own purpose, for the first time, from beginning to end are called primary data.

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

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

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

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

$$7. Q_1 = \text{Size of } \left(\frac{N+1}{4}\right) \text{th item} = \text{Size of } \left(\frac{7+1}{4}\right) \text{th item} = \text{Size of 2nd item} = 20$$

$$\therefore Q_1 = 20 \text{ and } Q_3 = \text{Size of } \frac{3(N+1)}{4} \text{th item} = \text{Size of } \frac{3(7+1)}{4} \text{th item} = \text{Size of 6th item} = 60$$

$$\therefore Q_3 = 60$$

$$\text{Now, } QD = \frac{Q_3 - Q_1}{2} = \frac{60 - 20}{2} = \frac{40}{2} = 20$$

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.

$$(b) \text{ Combined mean} = \frac{N_1 \bar{X}_1 + N_2 \bar{X}_2}{N_1 + N_2}$$

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

Calculation of combined standard deviation

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

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

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

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

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

$$= \sqrt{55.6} = 7.456$$

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	Secondary data are already collected and processed by some person or agency and

	using the method of data collection.	is ready for use.
Time factor	It requires longer time for data collection.	Secondary data requires less time.

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
$\sum 580$	$\sum 960$	$\sum 690$	$\sum 1150$

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: $P_{01} = \frac{\sum p_1q_1}{\sum p_0q_1} \times 100$
 $= \frac{1150}{960} \times 100 = 119.79$

12. Since, cumulative frequencies are given, we first convert them into simple frequencies

Calculation of Coefficient of Variation

Class Interval	Frequency	m	$d = m - A$ A = 35	$d' = \frac{d}{c}$ c = 10	fd'	d^2	fd^2
0-10	10	5	-30	-3	-30	9	90
10-20	15	15	-20	-2	-30	4	60
20-30	25	25	-10	-1	-25	1	25
30-40	30	35	0	0	0	0	0
40-50	10	45	10	1	10	1	10
50-60	5	55	20	2	10	4	20
60-70	5	65	30	3	15	9	45

70-80	0	75	40	4	0	16	0
	N = 100				$\sum fd' = -50$		$\sum fd'^2 = 250$

Section B

13. Stock of foreign currency held with the Govt. at given point of time called foreign exchange reserve.
14. Trade between two countries is known as bilateral trade.
15.
 1. To facilitate international trade through removal of tariff as well as non tariff barriers.
 2. To ensure optimum utilization of world resources.
 3. To provide technical assistance and training for developing countries,
 4. To establish a rule based trading regime in which nations cannot place arbitrary restrictions on trade.
16.
 1. Poor performance of public sector.
 2. Deficit of balance of payments.
 3. Inflationary pressures.
 4. Fall in foreign exchange reserves.
17. In the first phase (mid 60s to mid 70s), the use of HYV seeds was restricted to more affluent state like Punjab, Andhra Pradesh, and Tamil Nadu etc. Further the use of HYV Seeds primarily benefitted the wheat growing regions only. In the second phase (mid 70s to mid 80s), the HYV technology spread to a larger no of states and benefitted more variety of crops.
18.
 1. Life expectancy at birth.
 2. Infant mortality rate.
 3. Adult literacy rate.
 4. People below poverty line.
19.
 1. In some areas, the former zaminadars continued to own large areas of land while making use of some loopholes in the legislation.
 2. In some cases, tenants were evicted and zamindars claimed to be self cultivators.
 3. Even after getting the ownership of land, the poorest of the agricultural labourers did not benefit from land reforms.
20.
 1. Removal of quantitative restrictions on imports and exports.
 2. Removal of export duty.
 3. Reduction in import duty.
 4. Relaxation in import licensing system.

21. **(1) Agriculture:**

Countries	Contribution to GDP %	Workforce in agriculture %
China	15	54
India	23	60
Pakistan	23	49

(2) Industry:

Countries	Contribution to GDP %	Workforce in agriculture %
China	53	27
India	26	16
Pakistan	23	18

(3) Service:

Countries	Contribution to GDP %	Workforce in agriculture %
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China	32	19
India	51	24
Pakistan	54	33

22. (a) 1. Employment generation.
 2. Equitable distribution of national income.
 3. Mobilisation of capital and entrepreneurial skills.
 4. Regional dispersal of industries.

(b) The value of equitable distribution of opportunity is reflected in this case. The Indian economic system provides opportunity to both private and government to use the resources and grow. However, government will take care of the key sectors like defense, social development, health, education etc.

23.

Countries	Below Poverty Line People %	Growth Rate of Population %	Growth Rate of GDP (Dollar)
India	34.7	1.7	3.3 trillion
China	16	1	7.2 trillion
