

H.P. Board of Departmental Examination

Departmental Examination of Other Gazetted Officers of Himachal Pradesh
October, 2015

Paper No. 3 Economics and Statistics

Time Allowed: 3 hours

Maximum Marks: 100

Note: Attempt any five questions. Maximum marks are indicated against each question within parenthesis. **No text books or help books are allowed.**

Q.1. Is statistics an art or a science? Discuss the functions/role of statistics. What role statistics has played in formulating the development strategy of Himachal Pradesh?
(5+7+8)

Q.2. If you are given the task of assessing the impact of implementation of the Tribal Sub Plan in Himachal Pradesh, Plan a survey assuming that the required funds will be provided to you in full.
(20)

Q.3. Using the most appropriate method, calculate the standard deviation from the following data:

The range of temperature in a tribal village of Himachal Pradesh that prevailed for the number of days during a given year:

Temperature range in °C	No. of days
-40 to -30	10
-30 to -20	28
-20 to -10	30
-10 to 0	42
0 to 10	65
10 to 20	180
20-30	10

Also justify the method used for determining SD.

(17+3)

Q.4. Distinguish between Physical Quality of Life Index (PQLI) and Human Development Index (HDI). Calculate HDI with the following data:

Per Capita income (PPP\$)	= 978 (Max = 1786; Min = 387)
Life Expectancy at Birth (years)	= 73 (Max = 79; Min = 43)
Literacy Rate	= 87.3 (Max = 100; Min = 0)
Combined Enrolment Ratio	= 98.96 (Max = 100; Min = 0)

(5+13)

Q.5. One bag contains 4 white and 2 black balls. Another contains 3 white and 5 black balls. If one ball is drawn from each bag, find the probability that a) both the balls are white, b) both the balls are black, and, c) one is white and one is black.
(7+7+6)

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Q.6. Write Short Notes on:

- i) Gross National Product ii) Net National Product iii) Per Capita Income iv) Crude Birth Rate v) Depreciation vi) NSSO vii) CSO
(2+2+2+2+2+5+5)

Q.7. Calculate Karl Pearson's coefficient of correlation from the data given below:

Marks	Age in Years				
	18	19	20	21	22
20-25	3	2	-	-	-
15-20	-	5	4	-	-
10-15	-	-	7	10	-
5-10	-	-	-	3	2
0-5	-	-	-	3	1

(20)

Q.8. Discuss various measures of central value with their merits and disadvantages. Differentiate between range and quartiles.

(15+5)