



HDP-1601330102030800 Seat No. _____

M. L. W. (Sem. III) (CBCS) Examination

November/December – 2017

Labour Statistics

Time : 2 1/2 Hours]

[Total Marks : 70

Write an answer essay type of question.

- 1 Calculate Karl Pearson co-efficient of correlation from the following data and interpret its values. **10**

<i>X</i>	20	19	21	28	22	27	23	16	24	25
<i>Y</i>	16	21	16	20	17	19	17	19	18	17

OR

- 1 Do the sum of pigeon box : **10**

<i>X / Y</i>	30 – 35	35 – 40	40 – 45	45 – 50	50 – 55	55 – 60
80 – 90	2	3	2	–	–	–
90 – 100	–	2	5	4	2	–
100 – 110	–	4	8	5	1	–
110 – 120	–	–	2	3	1	1
120 – 130	10	–	–	2	1	1

- 2 Find out the quartiles from the following : **10**

<i>X</i>	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80
<i>F</i>	2	5	9	21	35	18	7	3

OR

- 2 Discuss about the meaning and types of hypothesis. **10**

- 3 Find the equation of regression lines from the following data 10
and also estimate $X=80$ and $Y=70$.

<i>J</i>	65	66	67	63	68	69	70	72
<i>K</i>	67	68	66	68	72	72	69	71

OR

- 3 Discuss about the various sources of Primary and Secondary 10
data collection.

- 4 Write short notes : (any five) 25

(1) Do the bar diagram types of stem :

<i>Stream</i>	<i>No. of students (2001)</i>	<i>No. of students (2002)</i>
<i>Arts</i>	500	400
<i>Science</i>	600	600
<i>Law</i>	200	400
<i>Medical</i>	700	300
<i>Engineering</i>	500	200
<i>Commerce</i>	300	500

(2) Find out the standard deviation of the following
distribution.

<i>A</i>	16 – 20	21 – 25	26 – 30	31 – 35	36 – 40	41 – 45
<i>B</i>	5	42	33	12	6	2

(3) Find out rank co-relation.

<i>X</i>	50	55	65	50	55	60	80	65	70	75
<i>Y</i>	110	110	115	125	140	115	130	120	115	160

- (4) What is labour turnover ? Describe the causes of turnover.
- (5) Find out S1, S2 F-test from the following.

<i>X</i>	28	41	40	38	35	33	46	32
<i>Y</i>	30	34	31	34	30	26	28	31

- (6) Discuss about the various sources of primary and secondary data collection.
- (7) Do the sum of index number by fisher formula.

<i>Stationary</i>	<i>Base year</i>		<i>Current year</i>	
	<i>P0</i>	<i>Q0</i>	<i>P1</i>	<i>Q1</i>
<i>Pencil</i>	8	20	9	20
<i>Pens</i>	10	6	12	10
<i>Notebook</i>	40	1	50	1
<i>Paper</i>	4	3	5	5
<i>Ink</i>	12	4	20	5

5 Attempt the following questions : (any five)

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- (1) Weight arithmetic mean :

<i>W</i>	2	6	10	14	18
<i>X</i>	4	12	20	9	5

- (2) Find out the geometric mean:

<i>X</i>	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70	70 – 80
<i>F</i>	2	5	9	21	35	18	7

- (3) Find out the harmonic mean :

<i>A</i>	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60	60 – 70
<i>B</i>	10	9	21	35	18	7

- (4) What is labour turnover ? How can it be measured ? State the causes of labour turnover.

- (5) Do the sum of index number by Laspey's formula.

Commodity	2000		2001	
	P_1	Q_1	P_0	Q_0
A	5	75	2	40
B	8	40	4	16
C	2	24	1	10
D	10	60	5	25

- (6) Find out the mean, median and mode from the following :

A	10 – 20	20 – 25	25 – 35	35 – 45	45 – 50	50 – 60
B	5	9	13	18	20	5

- (7) What is mean, median and mode ? Describe in brief.
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