

Model Paper “Statistics”
For Bridge Courses of Foundation Diploma of ACCA
Annual Examination 2017 & Onward

SUBJECTIVE

Part-B

Time: 02:30 Hours

Total Marks: 80

Section-I

Short Questions

8 x 5 = 40

Q. 2. Attempt any eight of the following

- i. Define secondary data and also write down its sources.
- ii. Given $U = \frac{\sum(X-170)}{5}$, $\sum f_u = 100$, $\sum f = 200$, find Arithmetic Mean.
- iii. Given $\sum P_0 Q_0 = 850$, $\sum P_1 Q_0 = 1170$, find Laspayre's price index number.
- iv. Give that Mean = 156.17, Median = 153.50 and Standard Deviation = 19.03, calculate Co-efficient of Skewness.
- v. If $P(A) = 1/3$, $P(A \cup B) = 1/2$ and $P(A \cap B) = 1/10$, find $P(B)$
- vi. In a moderately skewed distribution the value of Mean and Median are 120 and 110 respectively, find the value of mode.
- vii. Enlist the steps involved in the construction of frequency distribution.
- viii. Draw histogram for the frequency distribution given below.

Classes	60-62	62-64	64-66	66-68	68-70	70-72	72-74
Frequency	1	8	11	7	5	6	1

- ix. Write four Relative measures of dispersion.
- x. Write down the advantages of organization of data.

Section-II

Long Questions

4x 10= 40

Attempts any four of the following.

Q.3.(a) The following figures relate to the bonus paid to 40 factory workers:

Bonus (in Rs.)

76,70,54,70,104,58,88,94,89,57,86,62,58,73,103,90,84,90,88,59,84,63,65,72,101,56,87,
92,60,87,83,69,57,71,102,57,83,93,61,86

Prepare a frequency distribution taking the class width as 7, by inclusive method.

(b). Reciprocals of X are given below; Calculate Harmonic Mean and Arithmetic Mean of the data.

0.0267,0.0235,0.0211,0.0191,0.0174,0.0160,0.0148

Q.4.(a). Calculate Co-efficient of Variation

(b). Calculate Pearson's Co-efficient of Skweness

Groups	0-4	5-9	10-14	15-19	20-24	25-29
Frequency	4	5	20	16	4	1

Q.5. (a). Find the regression equation of income on years of service,

(b). Find Correlation Co-efficient.

Years of service	11	7	9	5	8	6	10
Income of Rs: in 1000's	10	8	6	5	9	7	11

Q.6. (a) Construct price index number for the year 1992 on the basis of the year 1990 of the following by using Fisher's Ideal formula:

Commodity	1990		1992	
	Price	Qty.	Price	Qty.
A	7	70	5	49
B	5	27	7	30
C	10	35	9	28

(b) Draw Frequency Polygon representing the following data:

Marks	10-19	20-29	30-39	40-49	50-59
No. of Students	5	25	40	20	10

Q.7. (a) The probability that a college students can pass a subject is $3/5$, find the chance that out of 5 students: (i) at least 3 will fail (ii) at most 3 will pass

(b) Given the probability distribution, find K

X	0	1	2	3	4
P(X)	1/210	20/210	K	70/210	10/210