



**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