Model Paper "Statistics" For Bridge Courses of Foundation Diploma of ACCA Annual Examination 2017 & Onward <u>Objective</u> <u>Part-A</u>

Time: Note: T the pres with the	30 Minu his part is scribed tin e answer b	es Total Marks: 20 compulsory. It should be attempted on the question paper and returned to the supervisory staff e. Cutting, overwriting and use of lead pencil are not allowed. Supervisory staff is required to atta ook.	after ach it
1	(i)	In a percentage frequency distribution the total of percentage frequencies (a) 1 (b) 100 (c) Σf (d) ΣY	is:
	(ii)	Color of hair is a: (a) Continuous variable (b) Discrete variable (c) Qualitating variable (d) Quantitating variable	
	(iii)	A quantity calculated from sample data is called: (a)Statistic (b) Sample (c)Parameter (d)None of these	
	(iv)	The data which have already been collected by someone are called:(a)Secondary data(b)Primary data(c)Arrayed data(d)None of these	
	(v)	Geometric mean of $X = 2,4,8$ is: (a)Zero (b)4 (c)6 (d)8	
	(vi)	It is reciprocal of the simple average of the reciprocal of all the values:(a)Arithmetic mean(b)G.M.(c)H.M.(d)Mode	
	(vii)	The difference between largest and smallest value is:(a)Interval(b)S.D.(c)Range(d)None of these	
	(viii)	For symmetrical distributions:(a)Mean < Median < Mode	
	(ix)	The variance of 5,5,5,5 and 5 is: (a)Zero (b)5 (c)25 (d)None of these	
	(x)	If the mean = 40, Mode = 42, the distribution is:(a)Symmetrical(b)+vely skewed(c)-vely skewed(d)None of these	
	(xi)	A curve having a flat top and short tails is called: (a)Kurtosis (b)Meso – kurtic (c)Platy-kurtic (d)Lepto-Kurtic	
	(xii)	A descriptive measure that expresses the magnitude and direction of linearelationship between two variables is called:(a)S.D.(b)Variance(c) Correlation Coefficient(c)None of these	r
	(xiii)	For Lepto-kurtic distribution: (a) $b_2>3$ (b) $b_2<3$ (c) $b_2=3$ (c) $b_1>3$	
	(xiv)	The probability of drawing one white and one black from a bag containing white and 4 black ball is: (a)4/9 (b)5/9 (c)1/9 (d)9/9	g 5
	(xv)	What is total angle of pie diagram: (a)90 \mathbb{R} (b)180 \mathbb{R} (c)360 \mathbb{R} (d)None of these	
	(xvi)	An Ogive is a:(a)Frequency Polygon(b)Frequency Curve(c)Cumulative frequency(d)None of these	
	(xvii)	If all the value are not of equal importance , the index number is called:(a)Weighted(b)Un-weighted(c)Simple(c)(None of these	
	(xviii)	If A is an empty set and S is the sample space then: (a)P (AUS) =1 (b)P (A\PiS) =1 (c)P(AUS) =0 (d)P (A) = P(S)	
	(xix)	Index number for the base period is always taken as:(a)One(b)Zero(c)100(d)200	
	(xx)	Now-a-days the word Statistics can be expressed in how many ways (a)2 (b)3 (c)4 (d)5	

Model Paper "Statistics" For Bridge Courses of Foundation Diploma of ACCA Annual Examination 2017 & Onward <u>SUBJECTIVE</u>

<u>Part-B</u>

Total Marks: 80

4x 10 = 40

Section-I

Short Questions

Time: 02:30 Hours

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= $(\underline{X-170})/5$, $\Sigma fu=100$, $\Sigma f=200$, find Arithmetic Mean.
- iii. Given $\Sigma P_0 Q_0 = 850$, $\Sigma P_1 Q_0 = 1170$, 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, $P(AUB) = \frac{1}{2}$ and $P(A \cap B) = \frac{1}{10}$, 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

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). C	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.
Α	7	70	5	49
В	5	27	7	30
С	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	Κ	70/210	10/210