



ASIA ENGLISH SCHOOL		1 st Term Exam September 2009-10
Secondary /Higher Secondary Section		Date : 16-09-09
Asia Campus, Drive-in Road, Ahmedabad-380054		Time : 2 Hours
Std : XI	Sub : Statistic	Total Marks : 50

Roll No. _____

[A] Write the answer for the following questions, selecting correct option. Each question carries one mark. [8]

- (1) The Indian statistical institute was established in the year
[a] 1947 [b] 1931 [c] 1951 [d] 1991
- (2) Various data published regularly by LIC is known as
[a] Government data [b] International data
[c] Semi Government data [d] Research Organisation data
- (3) According to Sturge rule, No. of classes = _____
[a] $1 + 3.332 \log 10^n$ [b] $3 + 1.322 \log 10^n$
[c] $1 + 33.22 \log 10^n$ [d] $1 + 3.322 \log 10^n$
- (4) Which one is an attribute ?
[a] Price [b] Temperature [c] Love [d] Age
- (5) The other name of cumulative frequency curve is
[a] Curve Line [b] Ogive Curve
[c] Normal Curve [d] Bar Curve
- (6) What is the total volume of data in pie diagram ?
[a] $\frac{1}{360}$ [b] 90 [c] 360 [d] 80
- (7) Which measure of average is mostly used in day to day life ?
[a] Mode [b] Mean [c] Median [d] quartile
- (8) If $\sum_{i=1}^{10} x_i = 20$, then value of $\bar{X} =$ _____
[a] 20 [b] 1 [c] 3 [d] 10

[B] Answer the following questions. Each question carries one mark. [8]

- (9) What is sample ?
- (10) State any three sources of secondary data.
- (11) What is classification ?
- (12) What is meant by inclusive class ?
- (13) State the types of diagram.
- (14) State the main purpose of diagrams.
- (15) Calculate the mean of first five natural numbers.
- (16) The mean of 20 observation is 22. One observation is taken as 23 instead of 32 by mistake. Find corrected mean.

[C] Answer the following questions. Each question carries two marks. [10]

- (17) Write the difference between primary data & secondary data
- (18) Write the characteristics of an ideal questionnaire.
- (19) Describe the advantages of a sample inquiry.
- (20) The following data give the ages (in complete years) of 50 individuals working in a college. Prepare a frequency distribution using the raw data such that one of the class is 25 – 29 & class length of classes is 5.

32	57	41	24	46	39	27	58	42	35
38	27	31	58	45	32	36	43	31	29
32	45	47	33	44	42	29	40	33	47
29	54	28	33	24	30	40	43	52	27
28	27	40	56	44	50	29	41	43	59

(P.T.O.)

Std. XI**:2:****Statistic**

- (21) Draw the histogram of the following frequency distribution
- | | | | | | | | |
|----------------|-------|-------|-------|-------|-------|-------|-------|
| Wage (in Rs.) | 10-20 | 20-30 | 30-40 | 40-50 | 50-60 | 60-70 | 70-80 |
| No. of workers | 10 | 14 | 17 | 20 | 17 | 14 | 10 |
- (22) Write the importance of diagrams.
- (23) Calculate the mean of the following data by simple formula & cumulative frequency formula & compare it.

11	20	29	38	56
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- (24) In a factory the number of male workers is three times the number of female workers. The mean weekly wage of female workers is 80% of the mean weekly wage of male workers. If the mean weekly wages of all workers in the factory is Rs. 380. Find the mean weekly wages of the male & female workers.

[D] Answer the following questions. Each question carries 4 marks. [6]

- (25) The students of a university were classified according to faculty & Gender. The following information is available.

60% of the total of 40000 students were Boys. The number of Girls in Engineering faculty was three times the number of girls in commerce faculty. 15% & 10% of the total number of students of the university were boys & girls respectively who belonged to Medical faculty. 20% of the total number of students in the university belonged to faculty of science and among these students, the number of girls were one-seventh of the number of boys. 7% & 17% of the total number of students were boys & girls of Arts faculty. 3.75% of the total number of students of the university belonged to the commerce faculty and the proportion of boys & girls among them was 3 : 7

Present the above data in an appropriate tabular form .

- (26) The category wise monthly expenditure of two families A & B are given in the following table. Represent the data by a percentage divided per diagram.

Monthly expenditure (in Rs.)	Food	Clothing	Education	Fuel	Rent	Others
Family A	810	270	288	180	162	90
Family B	700	200	200	300	400	200

[E] Answer the following questions. Each question carries five marks. [10]

- (27) The mean of the following frequency distribution of 125 observations is 22.12 find missing frequencies.

Class	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44
fi	3	8	12	-	35	21	-	6	2

- (28) A frequency distribution of equal class length after the change of origin and scale is obtained in the following form. If the mean of the frequency distribution is 32.83 & the Assumed mean is 31.5. Find the original frequency distribution.

di	-3	-2	-1	0	1	2	3
fi	2	11	17	30	23	10	7