MODEL QUESTION PAPER OF STATISTICS-I

For Diploma in Information Technology (DIT 02 year)
DIT Semester-II (1st year)
(OBJECTIVE) PART-A

Marks: 50

Time Allowed: 1hr 20 Minutes

Four possible answers A, B, C and D to each question are given. Tick the option which you think is correct. Cutting or doubling two or more option will result in zero marks in that question.

1.1 The number of values falling in a particular category is called:

(A) Tally mark
(B) Class
(C) Frequency
(D) Class mark

1.2 Qualities which do not vary are called:

(A) Variables
(B) Constants
(C) Statistics
(D) All

1.3 Teaching and research journals are _____ sources for collection of data.

(A) Primary
(B) Secondary
(C) Local
(D) Semi-official

1.4 The mean deviation for the data 5, 5, 5 is:

(A) 5
(B) 25
(C) Zero
(D) Negative

1.5 In Pie diagram is represented by a :

(A) Rectangle
(B) Circle
(C) Triangle
(D) Squar

1.6 Median divides the set of data into _____ equal parts.

(A) 2
(B) 4
(C) 10
(D) 100

1.7 Statistics is the back bone of:

(A) Economics
(B) Science
(C) Research work
(D) Presentation of data

1.8 Census report published are:

(A) Primary data
(B) Secondary data
(C) Raw data
(D) Simple data

1.9 The process of arranging data into row and Column is called:

(A) Array
(B) Tabulation
(C) Frequency Distribution
(D) Calssification

1.10 The length of class is called:

(A) Class frequency (B) Class Limit
(C) Class interval (D) Class Mark

2.1 The standard deviation is always computed from:

(A) Mean (B) Median
(C) Mode (D) G.M

2.2 If variance of a set of data is 25, then its standard deviation is:

(A) 25 (B) 12.5
(C) 7 (D) 5

2.3 The measure of dispersion can never be always:

(A) Negative (B) Positive
(C) Small (D) One

2.4 The difference between largest and Smallest Value:

(A) S.D (B) Interval
(C) Range (D) Median

2.5 For symmetrical distribution:

(A) Mean<Median<Mode (B) Mean>Median>Mode
(C) Mean<Mode< Median (D) Mean=Median=Mode

2.6 In negative Skewed distribution:

(A) Mean=Mode (B) Mode<Mean
(C) Range (D) Median

2.7The Variance of 5,5,5,5 and 5 is:

(A) Zero (B) 25
(C) 5 (D) 125

2.8 Standard deviation of 10,10,10 and10 is:

(A) 10 (B) 100
(C) 0 (D) 125

2.9 Coefficient of Variation is measure of:

(A) Relative dispersion (B) Absolute Dispersion
(C) Skewness (D) Non of these

2.10 The degree to which numerical data tend to spread about an average value is called:

(A) Skewness (B) Variation
(C) Constant (D) Flatness

3.1 Index number are called the barometers of:

(A) Economics
(B) Mathematics
(C) Statistics
(D)None of these

3.2 In fixed base method which period is alway taken as 100:

(A) Base
(B) Following
(C) Preceeding
(D) Current

3.3 In chain base method, base period is:

(A) Fixed
(B) Constant
(C) First
(D) Not fixed

3.4 Laspeyre's Index No. is also called:

(A) Base year weighted
(B) Current year weighted
(C) Ideal
(D) Simple

3.5 Weighted index number:

(A) Laspeyre's
(B) Fisher's
(C) Paasche's
(D) All of these

3.6 Current years quantities are used as weights in:

(A) Laspeyre's
(B) Fisher's
(C) Paasche's
(D) All of these

3.7 Laspeyre's Index No. is also called:

(A) Base year weighted
(B) Current year weighted
(C) Ideal
(D) Simple

3.8 A base year should be free from the effect of:

(A) Flood
(B) Strike
(C) War
(D) All of these

3.9 When the price of a year is divided by the price of the preceding year we get:

(A) Value Index
(B) Simple index
(C) Valume Index
(D) link Relative

3.10 The most suitable average for index number is:

(A) A.M
(B) Median
(C) G.M
(D) Mode

4.1 Which of the following cannot be the probability of an event?

(A) 1.75
(B) Zero
(C) 0.36
(D) 0.82

4.2 A fair coin is tossed. What is probability of getting tail:

(A) 0
(B) 1/2
(C) 2/3
(D) 1

4.3 From a well shuffled 52 card, What is probability of Black Card?

(A) 4/52
(B) 1/2
(C) 26/56
(D) 26

4.4 When a coin is tossed three times, then probability of 3 head is:

(A) 0
(B) 1/8
(C) 7/8
(D) 1

4.5 A random variable is also named as:

(A) Chance variable
(B) Discrete variable
(C) Qualitative variable
(D) Attribute

4.6 An orderly arrangement of object is called:

(A) Combination
(B) Permutation
(C) Factorial
(D) Sample Space

4.7 An Non-orderly arrangement of object is called:

(A) Combination
(B) Permutation
(C) Factorial
(D) Space set

4.8 When 'r' objects are chosen from 'n' objects without regard to order, it is called:

(A) Permutation
(B) Combination
(C) Factorial
(D) Multiplication

4.9 A random variable is also called:

(A) Contant
(B) Stochastic
(C) Chance Variable
(D) Both B&C

4.10 When a coin is tossed twice, then probability of at least one head is:

(A) 3
(B) 1/4
(C) 3/4
(D) 1

5.1In binomial distribution, the successive trials are:

(A) Independent
(B) Dependent
(C) Mutually exclusive
(D) Fixed

5.2 Limit of binomial distribution is:

(A) 0 to n
(B) 0 to 1
(C) \(-\infty\) to \(+\infty\)
(D) 0 to \(\infty\)

5.3 In a discrete probability distribution, the sum of all the probabilities is:

(A) 0 (B) 1
(C) -1 (D) ∞

5.4 Which is true in binomial distribution?:

(A) Mean=Variance (B) Mean>Variance
(C) Mean<Variance (D) Mean=S.D

5.5 The binomial probability is positive Skewed when

(A) P=1/2 (B) P<1/2
(C) P>1/2 (D) P=0

5.6 The binomial probability is Negative Skewed when

(A) p=q (B) p<q
(C) p>q (D) np=npq

5.7 Mean of the binomial distribution is:

(A) np (B) npq
(C) pq (D) n,p

5.8 Which of the following is an example of a discrete random variable?

A) Height of students B) Weight of students
C) Number of students in a class D) Temperature of a city

5.9 The value of a distribution function always lies between:

A) -1 and 0 B) 1 and 2
C) 0 and 1 D) -2 and 2

5.10. The sum of all probabilities of a discrete probability distribution is:

A) 0 B) 1
C) 2 D) 100

MODEL QUESTION PAPER OF STATISTICS-I
For Diploma in Information Technology (DIT 02 year)
DIT Semester-II (First year)
(SUBJECTIVE) PART-B

Time Allowed: 1 Hour 40 Minutes **Marks:** 50

SECTION – I

Write short answers to any 13 questions. (13X2=26 Marks)

1. Describe the importance of Statistics.1
2. Define Statistics in the plural sense. 1
3. Define arithmetic mean. 1
4. Write down any two merits of Median 1
5. Define composite index number.3
6. Define un-weighted index number.3
7. What is the fixed base method?3
8. Define Fisher's Index Number3
9. Define range. How will you calculate it for grouped data?2
10. Write down the main properties of S.D 2
11. If Q1 = 88.03 and Q3 = 94.90, find quartile deviation. 2
12. If X = 30, 31, 32, 33, 34, 35, 37, find range and its coefficient 2
13. Define binomial random experiment.5
14. What do you understand by random number?4
15. Define combination with an example4
16. Define continuous random variable.4
17. What is meant by probability distribution?5
18. What are the properties of binomial distribution?5



SECTION – II

Note: Attempt any THREE questions. 3x8=24

Q .1 Make a sector or Pie chart using the given data:

Group	Wheat	Sugarcane	Maize	Lentils	Total
Production	75	80	30	15	200

Q .2 Find Mean Deviation from the Median from the following data: (4 Marks)

Age	5–10	10–15	15–20	20–25
F	10	20	30	15

Q .3 (A) Given the prices of three commodities, construct the Chain Indices using Median as an Average:

Years	A	B	C
2014	105	84	119
2015	110	96	126
2016	110	103	132
2017	120	116	144

(B) Find the index number taking:

(i) The year 1930 as base. (ii) Average of the first 3 years as base.

Years	1930	1931	1932	1933	1934	1935	1936	1937	1938
Prices	4	5	6	7	8	10	9	10	11

Q .4

(A) How many committee of two people can be chosen from a group of people ? A,B,C,D

(B) Two cards are drawn from a well-shuffled pack of 52 cards. Find the probability that:

(i) One is a king and the other is a queen. (ii) Both are of different colours

Q No.5

(A) A fair two coin is tossed 60 times. Make a frequency distribution of number of heads.

(B) Fit a binomial distribution to the following data obtained by tossing a biased coin 4 time

X	0	1	2	3	4
f	10	30	20	25	15

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