

**2018 (A)**  
**INTERMEDIATE PART-I (11<sup>TH</sup> CLASS)**

Roll No. \_\_\_\_\_

**STATISTICS PAPER-I (New Scheme)**

TIME ALLOWED: 2.40 Hours

**SUBJECTIVE**

**MAXIMUM MARKS: 68**

**NOTE: Write same question number and its part number on answer book, as given in the question paper.**

**SECTION-I**

**Q.No. 2 Attempt any eight parts.**

**8 x 2 = 16**

- (i) What is sample?
- (ii) What is qualitative data?
- (iii) Write important types of Average.
- (iv) Define Geometric Mean.
- (v) What is Mode?
- (vi) What are quartiles?
- (vii) What are percentiles?
- (viii) Write any two types of Index Numbers.
- (ix) What is Laspeyre's Index Number?
- (x) What is un-weighted Index Number?
- (xi) What is chain base method?
- (xii) What is base period and current period?

**Q.No. 3 Attempt any eight parts.**

**8 x 2 = 16**

- (i) What is one-way and two-way classification?
- (ii) Define relative frequency.
- (iii) Define absolute measure of Dispersion.
- (iv) Given that  $n=8$ ,  $\sum D = -10$ ,  $\sum D^2 = 524$ . Find variance, where  $D = x - 15$ .
- (v) Write down any two properties of Standard Deviation.
- (vi) First, second and third quartiles of a distribution are 142.36, 153.50, 167.73 respectively. Find coefficient of skewness.
- (vii) First three moments about 16 are .35, 2.9 and 1.93 respectively, Find third moment about mean.
- (viii) What is random experiment?
- (ix) Define mutually exclusive events.
- (x) What is classical or "A Prior" definition of probability?
- (xi) State multiplication law of probability for two independent events.
- (xii) For any two events A and B, it is known that  $P(A) = \frac{2}{3}$ ,  $P(A \cup B) = \frac{7}{12}$ ,  $P(A \cap B) = \frac{5}{12}$ . Find  $P(B)$ .

**Q.No. 4 Attempt any six parts.**

**6 x 2 = 12**

- (i) Define Random Experiment.
- (ii) Define probability distribution.
- (iii) If  $E(x) = 1.5$  and  $E(x^2) = 3.5$ , then find variance of  $2x + 5$ .
- (iv) Write the properties of a probability density function (p.d.f).
- (v) Make probability distribution of no. of heads when 1 coin is tossed.
- (vi) Is it possible to have binomial distribution with mean = 12 and standard deviation = 4?
- (vii) Define Hypergeometric probability distribution.
- (viii) Find mean and variance of the given binomial distribution:  $(1/3 + 2/3)^{12}$
- (ix) If  $N = 10$ ,  $n = 5$  and  $K = 4$ , then find  $P(x < 1)$ .

**SECTION-II**

**NOTE: - Attempt any three questions.**

- 5.(a)** The frequency distribution given below has been derived from the use of working origin.  
If  $D = x - 18$  Find Geometric Mean of  $x$ . 4

D	-12	-8	-4	0	4	8	12	16
f	2	5	8	18	22	13	8	4

- (b)** Reciprocals of  $x$  are given as 0.0267, 0.0235, 0.0211, 0.0191, 0.0174, 0.0148.  
Find Harmonic Mean and Arithmetic Mean of  $x$ . 4

- 6.(a)** Calculate Standard Deviation and Co-efficient of variation from the following data: 4

y	375	400	425	450	475	500
f	22	34	47	37	46	14

- (b)** First four moments about  $x = 20$  are given as -2, 15, -25 and 80 respectively. Find moments about Mean. Also find moment ratios  $b_1$  and  $b_2$ . 4

- 7.(a)** The percentage expenses on the different groups were: food 45, rent 15, clothing 12, fuel and light 8 and miscellaneous 20. The group index numbers for the current year as compared with fixed base period were respectively: 410, 150, 343, 248 and 285. Calculate the CPI number for the current year. 4

- (b)** Three balls are drawn from the bag contains 4 white and 6 black balls. Find the probabilities : 4

- 8.(a)** Given the following probability distribution:

x	0	1	2	3	4
f(x)	$\frac{1}{126}$	$\frac{20}{126}$	$\frac{60}{126}$	$\frac{40}{126}$	$\frac{5}{126}$

Verify that  $E(2x+3) = 2E(x) + 3$ .

- (b)** A continuous r.v  $x$  has pdf as  $f(x) = \frac{x+1}{8}$ ,  $2 \leq x \leq 4$  Find (a)  $P(2.4 < x < 3.5)$ , (b)  $P(x > 2.8)$

- 9.(a)** Assuming that each baby has probability 0.3 of being male, find the probability that a family of 4 children will have (i) At most one male baby, (ii) At most one female baby.

- (b)** In a Hypergeometric distribution case If  $n=5$ ,  $N=12$  and  $K=3$  then Find  
(i)  $P(x \leq 1)$ , (ii)  $P(x > 1)$



**PAPER CODE  
NUMBER: 2181**

**2018 (A)**

Roll No. \_\_\_\_\_

**INTERMEDIATE PART-I (11<sup>TH</sup> CLASS)**

**STATISTICS PAPER-I (New Scheme)**

TIME ALLOWED: 20 Minutes

**OBJECTIVE**

MAXIMUM MARKS:17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) A variable that assumes any value within a range is called:  
(A) Discrete variable (B) Continuous variable (C) Independent variable (D) Dependant variable
- (2) The average of lower and upper class limits is:  
(A) Class boundary (B) Class frequency (C) Class marks (D) Class limits
- (3) A pie-diagram is represented by:  
(A) Rectangle (B) Circle (C) Triangle (D) Square
- (4) The middle value of an ordered series is called:  
(A) Median (B) 5<sup>th</sup> decile (C) 50<sup>th</sup> percentile (D) All these
- (5) If the values of Mean, Median and Mode coincide in a uni-Model distribution, then the distribution will be:  
(A) Skeved to the left (B) Skeved to the right (C) Multi Model (D) Symmetrical
- (6) The Geometric-Mean for  $x_1$  and  $x_2$  is:  
(A)  $\sqrt{x_1 + x_2}$  (B)  $\sqrt{x_1 x_2}$  (C)  $\sqrt{x_1} + \sqrt{x_2}$  (D)  $\sqrt{2x_1 x_2}$
- (7) \_\_\_\_\_ is expressed in the same units as the units of the observation.  
(A) Variance (B) Standard deviation (C) Co-efficient of variation (D) Co-efficient of Range
- (8) The first three moments of a distribution about the mean  $\bar{x}$  are 0,4 and 0. The distribution is:  
(A) Symmetrical (B) Skewed to the right (C) Skewed to the left (D) Lepto Kurtic
- (9) In a Mesokurtic distribution:  
(A)  $\beta_1 = 0$  and  $\beta_2 = 3$  (B)  $\beta_1 = 3$  and  $\beta_2 = 0$  (C)  $\beta_1 = 0$  and  $\beta_2 > 3$  (D)  $\beta_1 = 0$  and  $\beta_2 < 3$
- (10) In chain base Method, base period is:  
(A) Fixed (B) Not fixed (C) Constant (D) Zero
- (11) Index number for the base period is always taken as:  
(A) 100 (B) One (C) 200 (D) Zero
- (12) The probability of an event cannot be:  
(A) Equal to zero (B) Between Zero and One (C) Equal to one (D) Less than zero
- (13) An arrangement of the objects without regard to their order is called:  
(A) Permutation (B) Combination (C) Random experiment (D) Sample point
- (14)  $E [x - E(x)]^2$  is :  
(A)  $E(x)$  (B)  $E(x^2)$  (C)  $\text{Var} (x)$  (D) S.D (x)
- (15) A discrete probability function  $f(x)$  is always non-negative and always lies between:  
(A) 0 and  $\infty$  (infinity) (B) 0 and 1 (C) -1 and +1 (D)  $-\infty$  to  $+\infty$  (infinity)
- (16) The parameters of the binomial distribution are:  
(A) n and P (B) P and q (C) nP and nq (D) nP and npq
- (17) The mean of the Hypergeometric distribution is:  
(A)  $\frac{nK}{N}$  (B)  $\frac{NK}{n}$  (C)  $\frac{Nn}{K}$  (D)  $\frac{n+K}{N}$



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**STATISTICS PAPER-I (New Scheme)**

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INTERMEDIATE PART-I (11<sup>TH</sup> CLASS)

## STATISTICS PAPER-I (Old Scheme)

TIME ALLOWED: 3.10

SUBJECTIVE

MAXIMUM MARKS: 80

NOTE: Write same question number and its part number on answer book, as given in the question paper as given in the question paper.

SECTION-I

Q.No. 2 Attempt any eight parts.

8 x 2 = 16

- (i) Define inferential statistics.
- (ii) What is primary data.
- (iii) Define weighted mean.
- (iv) If  $\sum(x-15)=5$ ,  $\sum(x-21)=0$ ,  $\sum(x-24)=-21$ , What is the value of mean and why?
- (v) Define G.M.
- (vi) Find the mode of 3, 3, 7, 8, 10, 11, 10, 12.
- (vii) If  $n=10$  and  $\bar{x}=4$  then find  $\sum x$ .
- (viii) Define link relative.
- (ix) If Fisher's ideal Index is 117.84, Laspeyre's Index is 117.9, then what will be Paache's Index?
- (x) What is fixed base method?
- (xi) What is current period?
- (xii) If  $\sum P_o q_n = 1000$  and  $\sum P_n q_n = 1360$  and  $\sum P_o q_o = 1250$ , find current year weighted Index.

Q.No. 3 Attempt any eight parts.

8 x 2 = 16

- (i) Write down the main parts of statistical table.
- (ii) Define pie-chart.
- (iii) Define coefficient of Range with formula.
- (iv) If  $Q_1 = 30$  and Q.D. = 35, find  $Q_3$ .
- (v) Write down four properties of variance.
- (vi) Define standard deviation.
- (vii) If  $S^2 = 5$  and  $m_3 = -12.8$ , find  $b_1$  and discuss the distribution.
- (viii) If  $\text{Var}(x) = 9$ , find  $\text{Var}\left(\frac{14x+10}{50}\right)$
- (ix) Define mutually and not mutually exclusive events.
- (x) State the classical or Priori definition of probability.
- (xi) If A and B are independent events with  $P(A) = 0.2$  and  $P(B) = 0.6$ , find  $P(A \cup B)$
- (xii) If A and B are two independent events such that  $P(A) = 0.2$  and  $P(B) = 0.15$ .  
Find (i)  $P(A \cap B)$ , (ii)  $P\left(\frac{A}{B}\right)$

Q.No. 4 Attempt any six parts.

6 x 2 = 12

- (i) Explain the term continuous random variable.
- (ii) What do you understand by random number?
- (iii) Define discrete probability distribution.
- (iv) Express the term distribution function.
- (v) Given  $E(x) = 0.63$ ,  $\text{Var}(x) = 0.2331$ , find  $E(x^2)$ .
- (vi) Describe the binomial frequency distribution.
- (vii) What are mean and variance of hypergeometric probability distribution?
- (viii) What are parameters of hypergeometric probability distribution?
- (ix) If x is a binomial random variable with  $n=4$ ,  $P=\frac{1}{3}$  then compute  $P(x=2)$

## SECTION-II

NOTE: - Attempt any three questions.

8 x 3 = 24

- 5.(a) Compute median from the following data:

Classes	0-7	7-14	14-21	21-28	28-35
f	5	11	15	9	4

(4)

- (b) Find geometric Mean for the given data:

x	2	3	4	5	6
f	5	7	8	3	2

(4)

- 6.(a) For a group of 10 values  $\sum x = 452$ ,  $\sum x^2 = 24270$  and  $Mode = 43.7$ ,  
Calculate coefficient of Skewness and also discuss the nature of Skewness.

(4)

- (b) Calculate coefficient of Mean Deviation using median, for the following data:  
30, 35, 36, 31, 32, 38, 40, 35.

(4)

- 7.(a) Calculate Index number when 1989 as base year:

Years	1989	1990	1991	1992	1993	1994	1995
Price	20	24	26	29	32	32	40

(4)

- (b) A class contain 10 men and 20 women of which half the men and half the women have brown eyes.  
Find the probability that a person chosen at random is a man or has brown eyes.

(4)

- 8.(a) A continuous random variable 'x' has density Function  $f(x) = \frac{x+1}{8}$   $2 \leq x \leq 4$

(4)

Find (i)  $P(x > 3.5)$  (ii)  $P(2.5 < x < 3.5)$

- (b) A random variable 'x' has the probability distribution

x	0	1	2	3
P(x)	0.1	0.2	0.3	0.4

(4)

(i) Find  $E(x)$  and variance (x), (ii) Show that  $E(5x) = 5E(x)$ .

- 9.(a) In a binomial distribution  $n = 20$  and  $P = \frac{3}{5}$ ,

(4)

find the mean and standard deviation of the binomial distribution.

- (b) Ten vegetable canes, all of the same size has lost their label. It is known that 5 contain tomatoes and 5 contain corns. If 5 Cans selected at random what is the probability that:

(4)

(i) All contain tomatoes.

(ii) 3 or more contains tomatoes.

## SECTION-III (PRACTICAL)

10. Attempt any three parts.

3 x 5 = 15

- (A) Find median from the following data:

(5)

Marks	30-39	40-49	50-59	60-69	70-79
f	3	10	20	13	4

- (B) Compute standard deviation from the following data:

(5)

Classes	10-19	20-29	30-39	40-49	50-59
f	5	25	40	20	10

- (C) Compute Fisher's index number for following data:

(5)

Commodity	$p_o$	$q_o$	$p_n$	$q_n$
A	45	90	93	100
B	37	10	64	11
C	27	03	51	05

- (D) A random variable x has the following probability distribution:

(5)

x	-2	-1	0	1	2	3
P(x)	0.1	K	0.2	2K	0.3	3K

Find (i) K (ii)  $P(x < 2)$  (iii)  $P(x > 2)$  (iv)  $P(-2 < x < 2)$

- (E) In binomial distribution with  $n = 5$ , what is the value of other parameter of the binomial.  
If  $P(x = 0) = P(x = 1)$  find mean and variance of the distribution.

(5)



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**OBJECTIVE**

MAXIMUM MARKS:17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) Parameter is numerical quantity calculated from:  
(A) Sample Data (B) Population Data (C) Both a, b (D) None
- (2) The process of dividing the data into different classes is called:  
(A) Tabulation (B) Classification (C) Population (D) None
- (3) Mid point of class 10-20 is:  
(A) 15 (B) 10 (C) 20 (D) 18
- (4) Mode of data 1, 3, 3, 3, 5 is:  
(A) 3 (B) 1 (C) 5 (D) 4
- (5) Arithmetic mean of 3, 3, 3, 3 is:  
(A) 12 (B) 9 (C) 3 (D) 10
- (6) The difference between the largest and smallest value in the data is called:  
(A) Mean deviation (B) Quartile deviation (C) Range (D) None
- (7) The variance of 5, 5, 5, 5, 5 is:  
(A) 5 (B) 10 (C) Zero (D) None
- (8) Index number for base period is:  
(A) 200 (B) 100 (C) 300 (D) 400
- (9) Index number computed for single variable is called:  
(A) Composite Index Number (B) Simple Index Number  
(C) Weighted Index Number (D) None
- (10) Probability of an event "P(A)" is:  
(A)  $\frac{n(S)}{n(A)}$  (B)  $\frac{n(S)}{n(S)}$  (C)  $\frac{n(A)}{n(S)}$  (D) 1
- (11) Probability of head in tossing of single coin is:  
(A) 0.3 (B) 0.4 (C) 0.5 (D) 1
- (12) The E(X) is also known as:  
(A) Mean (B) S.D (C) Var (D) None
- (13) If E(X) = 10 then E(3x + 10) =  
(A) 50 (B) 60 (C) 70 (D) 40
- (14) Mean of binomial distribution is:  
(A) npq (B) np (C) 1 (D) N
- (15) In binomial experiment, trials are:  
(A) Dependent (B) Independent (C) Fix (D) None
- (16) There are two parameters of a binomial distribution, say:  
(A) n, q (B) n, p (C) N, n (D) n, K
- (17) Hypergeometric distribution has:  
(A) One parameter (B) Three parameters (C) Two parameters (D) None



**PAPER CODE  
NUMBER: 6183**

**2018 (A)**

Roll No. \_\_\_\_\_

**INTERMEDIATE PART-I (11<sup>TH</sup> CLASS)**

**STATISTICS PAPER-I (Old Scheme)**

TIME ALLOWED: 20 Minutes

**OBJECTIVE**

MAXIMUM MARKS:1

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) The  $E(X)$  is also known as:  
(A) Mean (B) S.D (C) Var (D) None
- (2) If  $E(X) = 10$  then  $E(3x + 10) =$   
(A) 50 (B) 60 (C) 70 (D) 40
- (3) Mean of binomial distribution is:  
(A)  $npq$  (B)  $np$  (C) 1 (D)  $N$
- (4) In binomial experiment, trials are:  
(A) Dependent (B) Independent (C) Fix (D) None
- (5) There are two parameters of a binomial distribution, say:  
(A)  $n, q$  (B)  $n, p$  (C)  $N, n$  (D)  $n, K$
- (6) Hypergeometric distribution has:  
(A) One parameter (B) Three parameters (C) Two parameters (D) None
- (7) Parameter is numerical quantity calculated from:  
(A) Sample Data (B) Population Data (C) Both a, b (D) None
- (8) The process of dividing the data into different classes is called:  
(A) Tabulation (B) Classification (C) Population (D) None
- (9) Mid point of class 10-20 is:  
(A) 15 (B) 10 (C) 20 (D) 18
- (10) Mode of data 1, 3, 3, 3, 5 is:  
(A) 3 (B) 1 (C) 5 (D) 4
- (11) Arithmetic mean of 3, 3, 3, 3 is:  
(A) 12 (B) 9 (C) 3 (D) 10
- (12) The difference between the largest and smallest value in the data is called:  
(A) Mean deviation (B) Quartile deviation (C) Range (D) None
- (13) The variance of 5, 5, 5, 5, 5 is:  
(A) 5 (B) 10 (C) Zero (D) None
- (14) Index number for base period is:  
(A) 200 (B) 100 (C) 300 (D) 400
- (15) Index number computed for single variable is called:  
(A) Composite Index Number (B) Simple Index Number  
(C) Weighted Index Number (D) None
- (16) Probability of an event " $P(A)$ " is:  
(A)  $\frac{n(S)}{n(A)}$  (B)  $\frac{n(S)}{n(S)}$  (C)  $\frac{n(A)}{n(S)}$  (D) 1
- (17) Probability of head in tossing of single coin is:  
(A) 0.3 (B) 0.4 (C) 0.5 (D) 1



**INTERMEDIATE PART-I (11<sup>TH</sup> CLASS)**

**STATISTICS PAPER-I (Old Scheme)**

TIME ALLOWED: 20 Minutes

**OBJECTIVE**

MAXIMUM MARKS: \_\_\_\_\_

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) The variance of 5, 5, 5, 5, 5 is:  
(A) 5 (B) 10 (C) Zero (D) None
- (2) Index number for base period is:  
(A) 200 (B) 100 (C) 300 (D) 400
- (3) Index number computed for single variable is called:  
(A) Composite Index Number (B) Simple Index Number  
(C) Weighted Index Number (D) None
- (4) Probability of an event "P(A)" is:  
(A)  $\frac{n(S)}{n(A)}$  (B)  $\frac{n(S)}{n(S)}$  (C)  $\frac{n(A)}{n(S)}$  (D) 1
- (5) Probability of head in tossing of single coin is:  
(A) 0.3 (B) 0.4 (C) 0.5 (D) 1
- (6) The E(X) is also known as:  
(A) Mean (B) S.D (C) Var (D) None
- (7) If  $E(X) = 10$  then  $E(3x + 10) =$   
(A) 50 (B) 60 (C) 70 (D) 40
- (8) Mean of binomial distribution is:  
(A) npq (B) np (C) 1 (D) N
- (9) In binomial experiment, trials are:  
(A) Dependent (B) Independent (C) Fix (D) None
- (10) There are two parameters of a binomial distribution, say:  
(A) n, q (B) n, p (C) N, n (D) n, K
- (11) Hypergeometric distribution has:  
(A) One parameter (B) Three parameters (C) Two parameters (D) None
- (12) Parameter is numerical quantity calculated from:  
(A) Sample Data (B) Population Data (C) Both a, b (D) None
- (13) The process of dividing the data into different classes is called:  
(A) Tabulation (B) Classification (C) Population (D) None
- (14) Mid point of class 10-20 is:  
(A) 15 (B) 10 (C) 20 (D) 18
- (15) Mode of data 1, 3, 3, 3, 5 is:  
(A) 3 (B) 1 (C) 5 (D) 4
- (16) Arithmetic mean of 3, 3, 3, 3 is:  
(A) 12 (B) 9 (C) 3 (D) 10
- (17) The difference between the largest and smallest value in the data is called:  
(A) Mean deviation (B) Quartile deviation (C) Range (D) None



**PAPER CODE  
NUMBER: 6187**

**2018 (A)**

Roll No. \_\_\_\_\_

**INTERMEDIATE PART-I (11<sup>TH</sup> CLASS)**

**STATISTICS PAPER-I (Old Scheme)**

TIME ALLOWED: 20 Minutes

**OBJECTIVE**

MAXIMUM MARKS: 100

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that bubble in front of that question number. On bubble sheet, use marker or pen to fill the bubbles. Cutting or filling two or more bubbles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled. Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

- (1) Arithmetic mean of 3, 3, 3, 3 is:  
(A) 12 (B) 9 (C) 3 (D) 10
- (2) The difference between the largest and smallest value in the data is called:  
(A) Mean deviation (B) Quartile deviation (C) Range (D) None
- (3) The variance of 5, 5, 5, 5, 5 is:  
(A) 5 (B) 10 (C) Zero (D) None
- (4) Index number for base period is:  
(A) 200 (B) 100 (C) 300 (D) 400
- (5) Index number computed for single variable is called:  
(A) Composite Index Number (B) Simple Index Number  
(C) Weighted Index Number (D) None
- (6) Probability of an event "P(A)" is:  
(A)  $\frac{n(S)}{n(A)}$  (B)  $\frac{n(S)}{n(S)}$  (C)  $\frac{n(A)}{n(S)}$  (D) 1
- (7) Probability of head in tossing of single coin is:  
(A) 0.3 (B) 0.4 (C) 0.5 (D) 1
- (8) The E(X) is also known as:  
(A) Mean (B) S.D (C) Var (D) None
- (9) If E(X) = 10 then E(3x + 10) =  
(A) 50 (B) 60 (C) 70 (D) 40
- (10) Mean of binomial distribution is:  
(A) npq (B) np (C) 1 (D) N
- (11) In binomial experiment, trials are:  
(A) Dependent (B) Independent (C) Fix (D) None
- (12) There are two parameters of a binomial distribution, say:  
(A) n, q (B) n, p (C) N, n (D) n, K
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- (15) The process of dividing the data into different classes is called:  
(A) Tabulation (B) Classification (C) Population (D) None
- (16) Mid point of class 10-20 is:  
(A) 15 (B) 10 (C) 20 (D) 18
- (17) Mode of data 1, 3, 3, 3, 5 is:  
(A) 3 (B) 1 (C) 5 (D) 4



**BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN**  
**OBJECTIVE KEY FOR INTERMEDIATE ANNUAL/SUPPLY EXAMINATION, 2018**

Name of Subject: Statistics (New Scheme)

Session: Statistics (Old Scheme)

Group: 1st

Group: 2nd Paper I

Q. Nos	Paper Code 2181	Paper Code 2183	Paper Code 2185	Paper Code 2187
1	B	D	B	A
2	C	D	B	A
3	B	B	A	B
4	D	B	A	A
5	D	A	B	D
6	B	A	A	B
7	B	B	D	C
8	A	A	B	B
9	A	D	C	A
10	B	B	B	A
11	A	C	A	B
12	D	B	A	C
13	B	A	B	B
14	C	A	C	D
15	B	B	B	D
16	A	C	D	B
17	A	B	D	B
18				
19				
20				

Q. Nos	Paper Code 6181	Paper Code 6183	Paper Code 6185	Paper Code 6187
1	B	A	C	C
2	B	D	B	C
3	A	B	B	C
4	A	B	C	B
5	C	B	C	B
6	C	B	A	C
7	C	B	D	C
8	B	B	B	A
9	B	A	B	D
10	C	A	B	B
11	C	C	B	B
12	A	C	B	B
13	D	C	B	B
14	B	B	A	B
15	B	B	A	B
16	B	C	C	A
17	B	C	C	A
18				
19				
20				

**سرٹیفکیٹ بابت صحیح سوالیہ پرچہ امارنگ Key**

ہم نے مضمون شمارہ 2 پرچہ I گروپ New/2018 ایئر سالانہ ضمنی امتحان 2018 کا سوالیہ پرچہ انشائیہ و معروضی (Subjective & Objective) کو بنظر عین چیک کر لیا ہے یہ پرچہ Syllabus کے عین مطابق Set کیا گیا ہے۔ اس سوالیہ پرچہ میں کسی قسم کی کوئی غلطی نہ ہے۔ ہم نے سوالیہ پرچہ کا اردو اور انگریزی Version بھی چیک کر لیا ہے۔ یہ Version آپس میں مطابقت رکھتے ہیں۔ نیز اس پرچہ کی معروضی (MCQs) Key کی بابت تصدیق کی جاتی ہے کہ اس میں بھی کسی قسم کی کوئی غلطی نہ ہے۔ مزید یہ کہ ہم نے Key بنانے سے متعلق دفتر کی جانب سے تیار کردہ ہدایات وصول کر کے ان کا بغور مطالعہ کر لیا ہے اور ان کی روشنی میں Key بنائی ہے۔ نیز سب ایئر ایمرز کیلئے تفصیلی مارکنگ ہدایات / مارکنگ سکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 06-06-2018

S.#	Name	Designation	Institution	Mobile No	Signature
1	Nasir Sipra	Associate Professor	G. C. Khanewal	0345-7380055	
2	M. Naeem Iqbal	Associate Professor	Govt. College of Science, Multan	0300-634773	
3	AFIAZ AHMAD ANSARI	Associate Professor	Govt. College of Science, Multan	0333-657036	

Re-Checked By: ہم نے درج بالا سوالیہ پرچہ (انشائیہ + معروضی) معروضی "Key" اور ہدایات کے حوالے سے مکمل طور پر چیک کر لیا ہے۔ کسی قسم کی کوئی غلطی نہ ہے۔

S.#	Name	Designation	Institution	Mobile No	Signature
1	AMIR AHMAD	Associate Prof	G.C. of Science Multan	0308-8639252	
2	Muhammad Nawaz	Principal	G.H.S.S. Ayazabad Multan	0333-6105660	
3					