INTERMEDIATE PART-II (12th CLASS)

BUSINESS MATHEMATICS & STATISTICS

PAPER-II (COMMERCE GROUP)

TIME ALLOWED: 2.10 Hours

SUBJECTIVE   MAXIMUM MARKS: 60

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

SECTION-I

2.   **Attempt any six parts.** $6 \times 2 = 12$

(i)   Define Statistics in Singular Sense.

(ii)   What do you understand by Random Variable?

(iii)   Highlight the scope of Statistics in Business.

(iv)   Write down two examples each of Discrete Variable and Continuous Variable associated with a college.

(v)   Enlist any two qualities of a good average.

(vi)   If mean of 8 observations:-
                17, 23, 25, 34, X_5, 38, 78, 73 is 43, then find X_5

(vii)   Find Median of 0, -1, -3, 3, -2.

(viii)   Enlist any two properties of Mean.

(ix)   Give the empirical relationship between Mean, Median and Mode.

3.   **Attempt any six parts.** $6 \times 2 = 12$

(i)   What is a Secondary Data?

(ii)   Write the methods of collection of Primary Data.

(iii)   Define Parameter with the example.

(iv)   Define a Continuous Variable.

(v)   Define Simple Index Nubmer.

(vi)   What is a Base Period?

(vii)   Define the Unweighted Index Number.

(viii)   Define Chain Indices.

(ix)   Laspeyre's Index = 120, Fisher's Index = 115. Find Paasche's Index.

4.   **Attempt any six parts.** $6 \times 2 = 12$

(i)   What is Classification?

(ii)   How many parts to construct Statistical Table?

(iii)   What is an Array?

(iv)   What is a Frequency Distribution?

(v)   Write the sample space for tossing a pair of coins.

(vi)   What is an Empty Set?

(vii)   State the addition law for two not mutually exclusive events.

(viii)   What is the probability of getting tail, on a throw of a coin?

(ix)   What is the probability of getting an even number on a single throw of dice?

(2)

SECTION-II

NOTE: - Attempt any three questions.

5.(a) The following data shows the number of heads in an experiment. Make a discrete frequency distribution:-   4

3	2	1	5	2	1	2	3	1	2
4	1	2	3	1	2	0	1	4	2
3	2	1	2	5	5	2	4	2	1
4	4	1	2	2	4	1	2	3	1
1	3	0	2	2	2	3	4	5	0

(b) Draw a Histogram for the following frequency distribution:-   4

Wages (Rs)	50 – 54	55 – 59	60 – 64	65 – 69	70 – 74	75 – 79	80 - 84
No. of workers	4	8	12	20	16	10	5

6.(a) The following data has been obtained from a Frequency Distribution of a Continuous Variable X after making the transformation $U = X_i - 18$ 4

U	– 12	– 8	– 4	0	4	8	12	16
f	2	5	8	18	22	13	8	4

Find the Arithmetic Mean.

(b) Calculate the Arithmetic Mean.   4

Classes	0.1 – 0.3	0.3 – 0.5	0.5 – 0.7	0.7 – 0.9	0.9 – 1.1	1.1 – 1.3	1.3 – 1.5
f	5	7	13	20	30	24	15

7.(a) Weight in grams of 15 eggs are given below. Find the Median.   4

68, 66, 65, 67, 72, 64, 63, 57, 61, 56, 58, 74, 65, 70, 60.

(b) Calculate the Mode for the following frequency distribution of heights of 100 college students:-   4

Height	60 – 62	63 – 65	66 – 68	69 – 71	72 – 74	75 - 77
f	05	17	41	27	8	02

8.(a) Compute price relatives of the following data taking 2005 as base:-   4

Years	2005	2006	2007	2008	2009	2010
Prices	30	28	35	32	36	40

(b) Compute Paasche's Price Index Number from the following data taking 1953 as base:-   4

Commodity	1953		1963	
	Price	Quantity	Price	Quantity
A	2	50	10	40
B	3	10	8	5
C	4	5	4	5

9.(a) A bag contains 5 white and 7 black balls. If 3 balls are drawn, what is the probability that   4
(i) all are white   (ii) all are black?

(b) Two fair dice are thrown, find the probability of throwing sum of (i) 9 (ii) 5   4

BUSINESS MATHEMATICS & STATISTICS

PAPER-II (COMMERCE GROUP)

TIME ALLOWED: 20 Minutes

OBJECTIVE   **MAXIMUM MARKS: 15**

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 circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles 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 measure computed from sample data is called:-

(A) Parameter   (B) Statistic   (C) Statistics   (D) Data

(2)   Statistics laws are true for:-

(A) Long term   (B) Short term   (C) Medium term   (D) None of these

(3)   Number of children is an example of:-

(A) Discrete variable   (B) Continuous variable   (C) Constant   (D) Attribute

(4)   Total angle of Pie – chart is:-

(A) $90°$ (B) $180°$ (C) $360°$ (D) $60°$

(5)   A graph of time series is called:-

(A) Histogram   (B) Historigram   (C) Ogive   (D) Bar chart

(6)   Lower class boundary of 25 – 35 is:-

(A) 20   (B) 30   (C) 25   (D) 35

(7)   The sum of deviation from mean is:-

(A) 5   (B) 10   (C) 15   (D) 0 (Zero)

(8)   The most repeated value in the data is called:-

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

(9)   We must arrange the data before calculating:-

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

(10)   In Chain Base Method, the base period is:-

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

(11) $\dfrac{P_n}{P_o} \times 100$ is equal to:-

(A) Price relatives   (B) Link relatives   (C) Chain indices   (D) None of these

(12)   Current year weighted index number is called:-   (A) Laspeyr's Index Number

(B) Paache's Index Number   (C) Fisher's Index Number   (D) Marshall's Index Number

(13)   The probability of sure event is:-

(A) 100   (B) 0   (C) 1   (D) $\dfrac{1}{2}$

(14)   When two dice are rolled, the total possible outcomes are:-

(A) 6   (B) 12   (C) 36   (D) 216

(15)   The probability of an event always lies between:-

(A) – 1 and 1   (B) – 1 and 0   (C) 0 and ∞ (D) 0 and 1

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN

OBJECTIVE KEY FOR INTER (PART I / II) Supply Examination, 2016.

Name of Subject *B. Statistics* Session *2016*

Q. Nos.	Paper Code	Paper Code	Paper Code	Paper Code
1	8641			
1.	B			
2.	A			
3.	A			
4.	C			
5.	B			
6.	C			
7.	D			
8.	D			
9.	A			
10.	B			
11.	A			
12.	B			
13.	C			
14.	C			
15.	D			
16.				
17.				
18.				
19.				
20.				

تصحیح سوالیہ پرچہ / مارکنگ Key بابت سرٹیفیکیٹ

ہم نے مضمون *شماریات* پرچہ: _____ گروپ *کامرس حکیم اول/دوم* انٹر سالانہ/ضمنی امتحان 2016ء کا سوالیہ پرچہ انشاء

(Subjective & Objevtive) کو بنظر عمیق چیک کر لیا ہے یہ پرچہ سلیبس کے عین مطابق Set کیا گیا ہے۔اس سوالیہ پرچہ میں کوئی

غلطی نہ ہے۔ہم نے سوالیہ پرچہ کا اردواور انگریزی Version بھی چیک کر لیا ہے یہ Version آپس میں مطابقت رکھتے ہیں اور سلیبس (Syllabus)

کے مطابق بھی ہیں۔نیز اس پرچہ کی Key کی بابت بھی تصدیق کی جاتی ہے کہ یہ درست بنائی گئی ہے۔اس میں بھی کسی قسم کی کوئی غلطی نہ ہے۔

مزید یہ کہ ہم نے Key بنانے سے متعلق دفتر کی جانب سے تیارہ کردہ ہدایات وصول کر کے ان کا بغور مطالعہ کر لیا ہے اور ان کی روشنی میں Key بنائی

PREPARED & CHECKED BY

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