2017 (S) Roll No: _____

INTERMEDIATE PART-II (12th CLASS)

BUSINESS MATHEMATICS & STATISTICS (NEW SCHEME) (SESSION 2015-2017)

PAPER-II (COMMERCE GROUP)

TIME ALLOWED: 1.45 Hours **SUBJECTIVE** MAXIMUM MARKS: 40

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.
(ii) Define Continuous Variable with example.
(iii) What is meant by Primary Data?
(iv) Differentiate between Sample and Population.
(v) Define Class Interval with example.
(vi) Define the term Classification.
(vii) How a Simple bar chart is constructed?
(viii) Define Median.
(ix) Write down the demerits of Arithmetic Mean.

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

(i) If $a = 15;\ n = 10;\ \sum D = 25$, then find $\bar{x}$.
(ii) Describe any two merits of Arithmetic Mean.
(iii) Find the mode of 12, 26, 35, 12, 27, 28, 35.
(iv) Define Link Relatives.
(v) Why link relatives converted to chain relatives?
(vi) Give $\sum p_1 q_0 = 1230$ and $\sum p_0 q_0 = 1600$ then find current year weighted index number.
(vii) What is Sure Event?
(viii) Define Independent Event.
(ix) If A and B are two independent events such that $P(A) = 0.2$ and $P(B) = 0.15$ then find $P(A \cap B) = ?$

SECTION-II

NOTE: - Attempt any two questions.

4.(a) Prepare a frequency distribution from the following data taking classes as 2.2 – 2.7, 2.8 – 3.3, ----- 4

4.1	3.5	3.2	4.2	3.6	3.5	4.2	4.8	4.1
4.3	4.4	4.3	3.8	4.2	4.7	2.8	3.7	4.9
4.6	3.3	3.7	2.6	2.7	4.7	4.1	4.2	4.6
4.1	4.9	3.7	4.5	3.9	3.7	4.0	2.9	4.7
3.6	2.9	3.2	3.3					

(b) Find the mode from the following data:- 4

Masses (kg)	60 – 64	65 – 69	70 – 74	75 – 79	80 – 84	85 – 89
No. of boys	2	6	12	14	10	6

5.(a) Find Arithmetic Mean by using Coding Method. 4

Classes	1 – 2	3 – 4	5 – 6	7 – 8	9 – 10
f	1	3	5	4	2

(b) Compute weighted aggregated index numbers of prices by 4
(i) Laspeyre's Method (ii) Paasche's Method

Article	2003 (Base)		2004	
	Quantity	Price	Quantity	Price
Wheat	56	170	63	175
Rice	53	200	76	175
Sugar	64	190	93	200
Ghee	13	190	27	195

6.(a) If we draw a single card from a pack of 52 playing cards. Find the following probabilities:- 4
(i) Card is black (ii) Picture card (iii) Card is king (iv) Black queen

(b) If we throw two coins, find the probability that:- 4
(i) Zero head occur (ii) At least on head occur

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INTERMEDIATE PART-II (12th CLASS)

BUSINESS MATHEMATICS & STATISTICS (NEW SCHEME) (SESSION 2015-2017)

PAPER-II (COMMERCE GROUP)

TIME ALLOWED: 15 Minutes **OBJECTIVE** MAXIMUM MARKS: 10

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) The data collected from published reports is known as:-

(A) Discrete data (B) Arranged data (C) Secondary data (D) Primary data

(2) The number of tally sheet count for each value or a group is called:-

(A) Frequency (B) Class limit (C) Class width (D) Class boundary

(3) The number of classes depends upon:-

(A) Class marks (B) Frequency (C) Class boundary (D) Class interval

(4) The sum of the deviations taken from means is:-

(A) Always equal to zero (B) Some times equal to zero

(C) Never equal to zero (D) Less than zero

(5) If the arithmetic mean of 20 values is 10, then the sum of these 20 values is:-

(A) 10 (B) 20 (C) 200 (D) 20 + 10

(6) If the data contains an extreme value, the suitable average is:-

(A) Mean (B) Median (C) Weighted Mean (D) Mode

(7) Index numbers can be used for:-

(A) Forecasting (B) Fixed Prices (C) Different Prices (D) Constant Prices

(8) Laspeyre's price index number is also called:-

(A) Simple aggregative index (B) Cost of living index

(C) Current year weighted (D) Base year weighted

(9) A measure of the chance that an uncertain event will occur:-

(A) An experiment (B) An event (C) A probability (D) A Trial

(10) If three coins are tossed, the possible outcomes are:-

(A) 8 (B) 3 (C) 1 (D) None of these

2017 (S) Roll No: _____

INTERMEDIATE PART-II (12th CLASS)

BUSINESS MATHEMATICS & STATISTICS (OLD SCHEME) (SESSION 2012-2014)

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 × 2 = 12**

(i) What is Secondary Data?

(ii) Give two sources of Secondary Data.

(iii) Define attribute by giving examples.

(iv) What is empirical relationship among Mean, Median and Mode?

(v) For a certain frequency distribution, the value of mean is 15 and median is 20. What will be the value of mode?

(vi) Find mode of word " STATISTICS".

(vii) Give merits of Arithmetic mean.

(viii) Define Mode with example.

(ix) Find Median of the data, 5, 6, 9, 5, 4, 3, 8, 7, 6.

3. Attempt any six parts. **6 × 2 = 12**

(i) Define Continuous Variable.

(ii) Define Types of Data by its source.

(iii) What is Editing of Data?

(iv) Name the methods of collecting Primary Data.

(v) What do you understand by base period and how it is selected?

(vi) Laspeyres index = 115, Fisher's index = 112.98 find Paasche's index.

(vii) Define Composite Index Number.

(viii) Write the Formula given by Fisher.

(ix) Given $\Sigma p_0 q_0 = 352$, $\Sigma p_1 q_0 = 422$, $\Sigma p_0 q_1 = 402$, $\Sigma p_1 q_1 = 481$ then find (i) Base year weighted 1. No (ii) Current year weighted Index No.

4. Attempt any six parts. **6 × 2 = 12**

(i) Define Statistics in Singular Sense.

(ii) What do you mean by Census?

(iii) Write two formats for the presentation of Data (only name).

(iv) Explain Classification and Tabulation.

(v) Write Sample Space when three coins are tossed.

(vi) Define Mutually Exclusive Events.

(vii) Differentiate between Simple Event and Compound Event.

(viii) If "A and B" are independent events and $P(A) = 0.62$, $P(B) = 0.44$ find $P(A \cap B)$.

(ix) Define Random Experiment.

P.T.O.

SECTION-II

NOTE: - Attempt any three questions.

5.(a) Marks obtained by 50 students of a class are given below. 4

23	50	38	42	63	75	12	33	26	
39	35	47	43	52	56	59	64	77	15
21	51	54	72	68	36	65	52	60	27
34	47	48	55	58	59	62	51	48	
50	41	57	65	54	43	56	44	30	
46	67	53							

Makes a frequency distribution using the classes as 10–19, 20–29 etc.

(b) Make the histogram of the frequency distribution in part (a). 4

6.(a) Calculate arithmetic mean for the following data by using Direct method. 4

Income	35–39	40–44	45–49	50–54	55–59	60–64	65–69
f	13	15	28	17	12	10	5

(b) The average marks obtained by the students of 3 Sections in Maths class are given below. Find Combined Mean. 4

Section	No. of students	Average marks
A	50	75
B	75	62
C	60	68

7.(a) The class marks for the ages of sales clerks employed in a departmental store are:- 18.5, 28.5, 38.5, 48.5, 58.5 and 68.5. Find class boundaries of this distribution and compute median if the if the class frequencies are 7, 12, 23, 35, 25 and 8 respectively. 4

(b) Find mode for the values. 4

(i) 6, 3, 5, 2, 6, 4, 8, 5, 6

(ii) 1, 3, 4, 7, 9, 10, 11, 13, 14, 16

8.(a) Compute the Chain Indices fro the following data for 1974 to 1979. 4

Year	Prices
1974	18
1975	19
1976	25
1977	30
1978	28
1979	32

(b) Construct Index number of prices for year 1990 taking 1985 as base year by Paasche's method. 4

Items	Prices		Quantity	
	1985	1990	1985	1990
A	60	80	2	3
B	40	45	4	2
C	20	25	3	4
D	55	70	1	2

9.(a) A pair of fair dice is rolled. Make a sample space. Find the probability that 4

(i) Their sum is 9 (ii) Their sum is at least 10.

(b) A bag contains 6 white, 4 red and 4 black balls. 3 balls at random are drawn from the bag. Find the probability that all three balls drawn are. 4

(i) of same color (ii) of different colors.

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INTERMEDIATE PART-II (12th CLASS)

BUSINESS MATHEMATICS & STATISTICS (OLD SCHEME) (SESSION 2012-2014)

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) Data classified by attributes is called:-

(A) Qualitative (B) Quantitative (C) Discrete (D) Continuous

(2) The grouped data is also called:-

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

(3) The data collected from an individual is called:-

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

(4) The classification of data according to regions or locations is _____ classification.

(A) Qualitative (B) Geographical (C) Time series (D) None of these

(5) The part of table containing row captions is called:-

(A) Stub (B) Body (C) Box head (D) Title

(6) Total of relative frequency is always:-

(A) One (B) Two (C) Half (D) Quarter

(7) If mean of 10 observations is 60, then sum of observations is:-

(A) Zero (B) 100 (C) 600 (D) – 50

(8) Mode is graphically located by:-

(A) Ogive (B) Histogram (C) Pie-chart (D) None of these

(9) _____ average cannot be less than zero.

(A) A.M. (B) G.M. (C) weighted mean (D) Median

(10) The base year should be:-

(A) First year (B) Last year (C) Normal year (D) None of these

(11) In fixed base method which period is always taken as 100:-

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

(12) When all the values are of equal importance, then index number is called:-

(A) Simple (B) Un-weighted (C) Weighted (D) Cost of living

(13) The probability of an event cannot be:-

(A) $= 0$ (B) < 0 (C) > 0 (D) $= 1$

(14) The probability of impossible event is equal to:-

(A) Zero (B) One (C) 0.5 (D) None of these

(15) If a coin is tossed thrice then the probability of 3 head is:-

(A) 0 (B) $\frac{7}{8}$ (C) $\frac{1}{8}$ (D) 1

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN

OBJECTIVE KEY FOR INTER (PART-I / II) Annual Examination, 2017.

Name of Subject Business Statistics **Session**

Group: ~~1st~~ old course (scheme) **Group:** ~~2nd~~ New Scheme

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

Q. Nos.	Paper Code 4641	Paper Code	Paper Code	Paper Code
1.	C			
2.	A			
3.	D			
4.	A			
5.	C			
6.	B			
7.	A			
8.	D			
9.	C			
10.	A			
11.				
12.				
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سرٹیفیکیٹ بابت صحیح سوالیہ پرچہ/مارکنگ Key

ہم نے مضمون بزنس سٹیٹسٹکس پرچہ II گروپ کامرس ہم اولڈ / نیو انٹر سالانہ/ضمنی امتحان 2017 کا سوالیہ پرچہ انشائیہ معروضی (Subjective & Objevtive) کو بنظر عمیق چیک کرلیا ہے یہ پرچہ سلیبس 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 کرلیا 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 بھی 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 تیار کردہ ہدایات وصول کر کے ان کا بغور مطالعہ کرلیا ہے اور ان کی روشنی میں Key بنائی ہے۔

PREPARED & CHECKED BY

Sr.No	Name	Designation	Institution	Mobile No.	Signature
1	Muhammad Zia	Lecturer	Civil Lines Multan	03006373549	(signed)
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