

BOARD OF INTERMEDIATE AND SECONDARY EDUCATION, MULTAN.
OBJECTIVE KEY FOR INTERMEDIATE ANNUAL EXAMINATION, 2022

Name of Subject: B Maths

Session: A

2022-23

P-I
27/07/22

Q.Nos	Paper Code	Paper Code	Paper Code	Paper Code
	2641			
1	B			
2	A			
3	D			
4	C			
5	B			
6	D			
7	A			
8	A			
9	C			
10	D			
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

سرٹیفکیٹ بابت صحیح سوالیہ پرچہ / مارکنگ Key

ہم نے مضمون بنزنس مینجمنٹ پرچہ 1 گروپ کامرس انٹرمیڈیٹ سالانہ امتحان 2022ء 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 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 ایگزامینرز کیلئے تفصیلی مارکنگ ہدایات / مارکنگ سکیم / Rubrics بھی تیار کر دی گئی ہیں۔

Prepared & Checked By:

Dated: 30-07-2022

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

1					
2					

تاریخ

INTERMEDIATE PART-I (11th CLASS)BUSINESS MATHEMATICS PAPER-I
(COMMERCE GROUP)TIME ALLOWED: 1.45 Hours
MAXIMUM MARKS: 40SUBJECTIVE**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) How do you define ratio? Give one example.
- (ii) Define direct proportion and give one example.
- (iii) A student got 935 marks out of 1100 marks. What is his percentage?
- (iv) Define annuity due and write its formula for present value.
- (v) If Rs.5000 is deposited for 6 years at simple interest rate of 5% p.a. then calculate simple interest and its amount.
- (vi) Solve the equation $6x - 8 = 2x + 4$
- (vii) In linear equation $x + 5 = 2$, identify constants and variables.
- (viii) Solve by completing square method $3x^2 + 6x - 9 = 0$
- (ix) Solve by factorization method $2x^2 - 9x + 4 = 0$

3. Attempt any six parts.

6 × 2 = 12

- (i) Define even and odd functions.
- (ii) Identify abscissa and ordinate of the point (2, -5).
- (iii) Change 7 into Binary number.
- (iv) Simplify $(1001)_2 \times (111)_2$
- (v) Find the difference of $(10)_2$ from $(101)_2$
- (vi) Define upper triangular matrix and give its example.
- (vii) Find the sum of matrices $A = \begin{bmatrix} 2 & 3 \\ 1 & 5 \end{bmatrix}$, $B = \begin{bmatrix} 2 & 3 \\ 1 & 1 \end{bmatrix}$
- (viii) If $A = \begin{bmatrix} 3 & -3 \\ -6 & -5 \end{bmatrix}$, then find $|A|$
- (ix) If $A = \begin{bmatrix} 1 & 4 \\ 3 & 2 \\ 2 & -5 \end{bmatrix}$, $B = \begin{bmatrix} -16 & 5 \\ 3 & 4 \\ 1 & 7 \end{bmatrix}$ then find $(A + B)'$

SECTION-II**NOTE:** Attempt any two questions.

- 4.(a) After 6% of a bill has been deducted Rs.282 remain to be paid. How much was the original bill? 4
- (b) At what rate Rs.500 double itself in 5 years by simple interest. 4
- 5.(a) Plot the graph of $y = 2x^2 - 6x + 5$ 4
- (b) Solve the pair of simultaneous equations $5x + 2y = 64$, $2x - y = 4$ 4
- 6.(a) If $A = \begin{bmatrix} 4 & 9 \\ 7 & 6 \end{bmatrix}$, then find A^{-1} and prove $A^{-1}A = AA^{-1} = I_2$ 4
- (b) Evaluate $(1010111)_2 \times (11011)_2$ 4

BUSINESS MATHEMATICS PAPER-I
(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 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. 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) In the proportion $a : b :: c : d$ the extremities are:
☒ (A) a and b ☒ (B) a and d (C) b and c (D) c and d
- (2) 20% of Rs.1200 is:
☒ (A) Rs.240 (B) Rs.100 (C) Rs.120 (D) Rs.420
- (3) For simple interest $T =$
 (A) $\frac{P}{I \times R}$ (B) $I \times P \times R$ (C) $\frac{R}{I \times P}$ ☒ (D) $\frac{I}{P \times R}$
- (4) Graph of the function $f(x) = 4x - 3$ is:
 (A) A circle (B) A triangle ☒ (C) A straight line (D) A parabola
- (5) If $\frac{2x+3}{x-1} = \frac{2}{5}$ then the value of x is:
 (A) $\frac{17}{8}$ ☒ (B) $\frac{-17}{8}$ (C) $\frac{15}{7}$ (D) $\frac{-15}{7}$
- (6) Discriminant of $2x^2 - 3x - 2 = 0$ is:
 (A) 24 (B) 27 (C) 23 ☒ (D) 25
- (7) The additive inverse of $\begin{bmatrix} 2 & 1 \\ 3 & -4 \end{bmatrix}$ is:
☒ (A) $\begin{bmatrix} -2 & -1 \\ -3 & 4 \end{bmatrix}$ (B) $\begin{bmatrix} -2 & 1 \\ 3 & 4 \end{bmatrix}$ (C) $\begin{bmatrix} 1 & 2 \\ 4 & 3 \end{bmatrix}$ (D) $\begin{bmatrix} -2 & -1 \\ 3 & -4 \end{bmatrix}$
- (8) Number of digits used in binary system is:
☒ (A) 2 (B) 1 (C) 4 (D) 3
- (9) Sum of $(11)_2$ and $(11)_2$ is:
 (A) $(101)_2$ (B) $(100)_2$ ☒ (C) $(110)_2$ (D) $(111)_2$
- (10) If B is a rectangular matrix of order $p \times q$, then order of B^t is:
 (A) $p \times p$ (B) $p \times q$ (C) $q \times q$ ☒ (D) $q \times p$