



## Mathematics

## General Instructions:

- 1) Candidate will write his Roll Number on Computerized Answer Sheet and Open Ended Questions Part in digits.
- 2) Attempt all questions. Read each question carefully before answering.
- 3) Instructions to solve these questions are written with related parts.
- 4) Students are not allowed to take the Question Paper/Answer Sheet out of the Examination Centre.
- 5) Tick  the correct option with BALL POINT, for right answer to the MCQ's part, on the computerized answer sheet. Tick  sign must remain within the box.

Example:

1. Pakistan came into being in:-

- (a) 1856 (b) 1905 (c) 1947 (d) 1927

Correct method to answer:

- |     |                          |                          |                                     |                          |
|-----|--------------------------|--------------------------|-------------------------------------|--------------------------|
| Q.1 | (a)                      | (b)                      | (c)                                 | (d)                      |
|     | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Note: Multiple ticked  answers for one question will be considered wrong.

## Part-(A)

## MULTIPLE CHOICE QUESTIONS

TIME ALLOWED: 1 hour 20 minutes

## Specific Instructions:

**Forty (40) Multiple Choice Questions (MCQs) are given in this part. Attempt all questions. All questions carry equal marks.**

**Q. No.1. If  $A = \{1, 2, 3, \dots, 30\}$  then true statement is**

- (a)
- $-10 \supseteq A$
- (b)
- $-10 \subseteq A$
- (c)
- $-10 \notin A$
- (d)
- $-10 \in A$

**Q. No.2. A person buys a car and sells it at half price his loss in percentage is**

- (a) 0 % (b) 25 % (c) 50 % (d) 75 %

**Q. No.3. Statement follow the commutative property of addition is**

- (a)
- $5 + 3 = 4 + 4$
- (b)
- $5 + 3 = 1 + 7$
- 
- (c)
- $5 + 3 = 3 + 5$
- (d)
- $5 + 3 = 5 + 3$

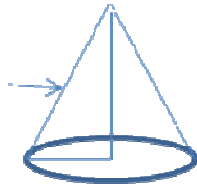
**Q. No.4. Naveed bought a readymade dress in Rs. 2580 and due to some reasons returned back to the seller in Rs. 2461. Loss percentage of Naveed in Rs. is**

- (a) 2% (b) 3% (c) 4% (d) 5%

**Q. No.5. If  $U = \{1, 2, 3, 4, 5\}$  and  $L = \{2, 3, 4, \}$  then  $L'$  set is**

- (a)
- $\{2, 3, 4, \}$
- (b)
- $\{5, 1\}$
- 
- (c)
- $\{1, 2, 3, 4, 5\}$
- (d)
- $\{2, 5, 1, 4, 3\}$

**Q. No.6. In given figure arrow points towards**



- (a) Height (b) Slant height  
(c) Radius (d) Circle

**Q. No.7. Example of property of additive identity is**

- (a)  $0+3=3+0=3$  (b)  $1+2=2+1=3$   
(c)  $-1+4=4-1=3$  (d)  $-2+5=5-2=3$

**Q. No.8. If  $U=\{1,3,5,7,9\}$  and  $A=\{1,5,7\}$  the compliment of set A is**

- (a)  $\{ \}$  (b)  $\{3,9\}$   
(c)  $\{1,5,7\}$  (d)  $\{1,3,5,7,9\}$

**Q. No.9. Solution of  $(1101)_2 \times (11)_2$**

- (a)  $(111001)_2$  (b)  $(110011)_2$  (c)  $(100111)_2$  (d)  $(111100)_2$

**Q. No.10.  $(11)_2 + (42)_5 + 25$  has solution**

- (a) 78 (b) 50 (c) 68 (d) 40

**Q. No.11. Solution of  $(x+5)(x+2)$**

- (a)  $x^2 - 3x - 10$  (b)  $x^2 - 3x + 10$   
(c)  $x^2 + 3x - 10$  (d)  $x^2 + 3x + 10$

**Q. No.12. If 60 machines spin 4800 kg cotton in 4 hours then 30 machines in 6 hours will spin cotton in kg.**

- (a) 3600 (b) 4800 (c) 6000 (d) 7200

**Q. No.13.  $(100 - 6) \times (100 + 6)$  is equal to**

- (a) 200 (b) 9964 (c) 10000 (d) 11236

**Q. No.14. Square root of 0.3249 is**

- (a) .07 (b) .27 (c) .17 (d) .37

**Q. No.15. A property dealer bought a house in Rs. 2,60,000 and sold it in Rs. 2,93,480 so he earned profit or loss of amount in Rs.**

- (a) Profit of 33480 (b) loss of 33480  
(c) Profit of 553480 (d) loss of 553480

**Q. No.16. Power Set of  $\{5, 7\}$  is**

- (a)  $\{ \}$  (b)  $\{ \{5, 7\} \}$   
(c)  $\{ \}, \{5\}, \{7\}, \{5,7\}$  (d)  $\{ \{ \}, \{5\}, \{7\}, \{5,7\} \}$

**Q. No.17. A sale agent made a sale in Rs. 30,000 for his company and he was rewarded commission @ 16%, so his earning in Rs. is**

- (a) 3600 (b) 4800 (c) 600 (d) 7200

**Q. No.18. A departmental store gives 5% discount on each article and additional discount of 5% on the balance on cash payment. If price of an article is Rs. 500. Customer will pay in Rs.**

- (a) 430.25 (b) 440.25 (c) 450.25 (d) 451.25

**Q. No.19.  $9X^2 + 6XY + Y^2$  is equal to**

- (a)  $(3X + Y)^2$  (b)  $(3X + 2Y)^2$  (c)  $(3X - Y)^2$  (d)  $(3X - 2Y)^2$

**Q. No.20.**  $(110)_2 - (101)_2$  is equal to  
 (a)  $(001)_2$  (b)  $(011)_2$  (c)  $(101)_2$  (d)  $(010)_2$

**Q. No.21.** Correct order of priority for  $[ ]$ ,  $\{ \}$ ,  $( )$ ,  $-$   
 (a)  $-$ ,  $( )$ ,  $\{ \}$ ,  $[ ]$  (b)  $( )$ ,  $-$ ,  $\{ \}$ ,  $[ ]$   
 (c)  $\{ \}$ ,  $[ ]$ ,  $( )$ ,  $-$  (d)  $[ ]$ ,  $\{ \}$ ,  $( )$ ,  $-$

**Q. No.22.** Evaluate  $10xy + 6xz$  if  $x = 3$ ,  $y = 2$ ,  $Z = 1$   
 (a) 68 (b) 78 (c) 88 (d) 98

**Q. No.23.** Solution of  $(x^3 + 7x^2 - 6x + 5) + (6x^3 - 2x^2 + 4x + 5)$  is  
 (a)  $5x^3 - 9x^2 + 10x - 10$  (b)  $5x^3 + 9x^2 - 10x + 10$   
 (c)  $4x^3 + 7x^2 - 2x + 10$  (d)  $7x^3 + 5x^2 - 2x + 10$

**Q. No.24.** Solution of  $(x^3 + 3x^2 + 3x + 1) \div (x + 1)$  is  
 (a)  $x^2 - 2x - 1$  (b)  $x^2 - 2x + 1$   
 (c)  $x^2 + 2x + 1$  (d)  $x^2 + 2x - 1$

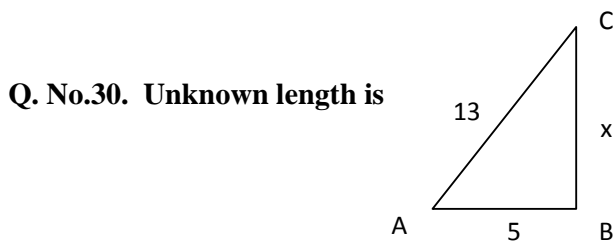
**Q. No.25.** Weekly cost of milk for a family is Rs. 210 . The monthly cost of milk for that family will be  
 (a) Rs. 30 (b) Rs. 210  
 (c) Rs. 900 (d) Rs. 6300

**Q. No.26.** Weights of students is given 35, 30, 32, 28, 40, 31, 45, if size of class interval is taken 6, then number of classes formed are  
 (a) 1 (b) 2 (c) 3 (d) 4

**Q. No.27.** Solution of  $\sqrt{12\frac{24}{25}}$  is  
 (a)  $\frac{16}{5}$  (b)  $\frac{18}{5}$  (c)  $\frac{20}{5}$  (d)  $\frac{22}{5}$

**Q. No.28.** A value of car depreciated @ 15% per year. If Kaleem purchased a car in Rs. 6,50,000. Price of car after one year in Rs is  
 (a) 522500 (b) 532500 (c) 542500 (d) 552500

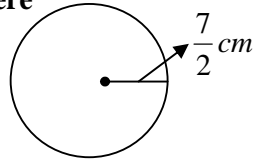
**Q. No.29.**  $3x - 2y$ ,  $3x - 2y < 0$ ,  $3x - 2y > 0$ ,  $3x - 2y = 0$  linear equation with two variables is  
 (a)  $3x - 2y$  (b)  $3x - 2y < 0$   
 (c)  $3x - 2y > 0$  (d)  $3x - 2y = 0$



(a) 12 (b) 5 (c) 8 (d) 18

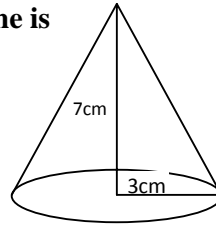
**Q. No.31.** Median of 3, 1, 2, 2, 1, 3, 4, 1, 1 is  
 (a) 1 (b) 2 (c) 3 (d) 4

**Q. No.32. Surface area of sphere**



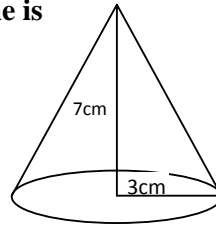
- (a)  $154 \text{ cm}^3$       (b)  $15 \text{ cm}^2$       (c)  $154 \text{ cm}^2$       (d) 154

**Q. No.33. Diagram of cone is given, volume of cone is**



- (a)  $21 \text{ cm}^3$       (b)  $7 \text{ cm}^3$       (c)  $66 \text{ cm}^3$       (d)  $3 \text{ cm}^3$

**Q. No.34. Diagram of cone is given, base area of cone is**



- (a)  $198 \text{ cm}^2$       (b)  $100 \text{ cm}^2$       (c)  $49 \text{ cm}^2$       (d)  $9 \text{ cm}^2$

**Q. No.35. If  $C = \{1, 2, 3, 4, \dots, 10\}$  and  $D =$  Set of first 10 even numbers then true statement is**

- (a)  $C = D$       (b)  $C \neq D$       (c)  $C \subseteq D$       (d)  $C \supset D$

**Q. No.36.  $\left(8 + \frac{1}{8}\right)^2$  is equal to**

- (a)  $64 \frac{1}{64}$       (b)  $66 \frac{1}{64}$       (c)  $66 \frac{1}{66}$       (d)  $\frac{65}{8}$

**Q. No.37. Mean of 4, 6, 7, 8, 10 is**

- (a) 3      (b) 5      (c) 7      (d) 9

**Q. No.38. Mode of 0, 1, 3, 1, 7, 4, 0, 0, 1 is**

- (a) 0, 1,      (b) 0, 3,      (c) 1, 4,      (d) 4, 7,

**Q. No.39. Median of data 10, 8, 13, 14, 7 is**

- (a) 7      (b) 8      (c) 10      (d) 14

**Q. No.40.  $\left(3x + \frac{1}{3x}\right)^2$  is equal to**

- (a)  $3x + \frac{1}{3x} + 2$       (b)  $9x^2 + \frac{1}{9x^2} + 2$   
(c)  $6x^2 + \frac{1}{6x^2} + 2$       (d)  $9x + \frac{1}{9x} + 2$



Version 3

Q.No.	1	2	3	4	5
Marks:					
d r E Á í n S					

## GRADE-8 EXAMINATION 2008

Roll Number: \_\_\_\_\_ ù r k

Center Code: \_\_\_\_\_ ~~1~~

Signature of Supervisor: \_\_\_\_\_

Date: \_\_\_\_\_

### Mathematics Part-(B) OPEN ENDED QUESTIONS

TIME ALLOWED: 40 minutes

**Specific Instructions:** This part has 5 Open Ended Questions. Please use blank space below the question to write the answer.

**Q. No.41.** Usman buys a Motor Cycle for Rs 40,000. He Pays 5 % Commision to the Shop keeper .

(a) Calculate the amount of Commission Usman paid to the shop keeper (1)

(b) Calculate the Total amount Usman paid to the Shopkeeper (2)

(c) By Calculation decide whether Usman gets profit or loss if Usman sells his motor cycle at 5 % discount. (2)

**Q. No.42. Construct a Rhombus whose diagonals are 7cm and 5cm.**

**(5)**

**Q. No.43. Sum of two numbers is 65 and twice of one number is 13. Find numbers.**

**(5)**

**Q. No.44. Find least number which when subtracted from 109088, the answer is a complete square.**

**(5)**

**Q. No.45. Find Mean of**

**(5)**

Class Interval	Frequency
1 – 3	2
3 – 5	3
5 – 7	1
7 – 9	2
9 – 11	1