Model Paper Mathematics Grade 8

General Instructions:

1) Write Roll Number in **digits**.(Figures) on Computerized Answer Sheet (The Sheet on which students mark the correct answer of objective questions). In the absence of your Roll No your scores would not be identified and allocated to you.
2) Read each question carefully before answering. Attempt all questions. There is no choice in questions.
3) Students are not allowed to take the Question Paper/Answer Sheet out of the Examination Centre.
4) Mark the correct option of MCQ with sign ☑ with a Black Ball Point, on the computerized answer sheet. If a student marks two or more boxes, or one sign ☑ touches two boxes or the sign ☑ is within two boxes without touching anyone, the computer will score ZERO for such questions.
5) Students are not allowed to mark in the boxes made against the open ended questions serial numbers. The teachers will score your questions and then mark your score in the related box. If any two boxes are marked then computer will give you ZERO mark. The example of an objective question is given below.

Example:

1.   The symbol to express "number 10" in Roman Numeral system is.

(a) V   (b) M   (c) X   (d) L

Correct method to answer:

| Q.1 | (a) □ | (b) □ | (c) ☑ | (d) □ |

Part-A (Multiple Choice Questions)   Time Allowed: 1 hour 20 minutes

Instruction:- Forty (40) Multiple Choice Questions (MCQs) are given in this part. Attempt all questions. All questions carry equal marks. Mark correct option on computerized answer sheet.

Q. No.1. If (-101) + (101) = 0 then property of equality used, is:
(a) Reflexive Property   (b) Symmetric Property
(c) Transitive Property   (d) Additive inverse Property

Q. No.2. Approximate value of 4.236……….. correct up to 2 *decimal* places is:
(a) 4.23   (b) 4.24   (c) 4.22   (d) 4.25

Q. No.3. An agent sold out an item in Rs. 20896 whose cost price was Rs. 21896, so he sold an item in
(a) Profit   (b) Loss   (c) No Profit   (d) No Loss

Q. No.4. 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.5. If in class interval " 1----- 5 " data 2,3,2,4,5,4 lies then frequency of class interval is:
(a) 6   (b) 4   (c) 5   (d) 2

Q. No.6. Set A = {5,3,4,1,2} is equal to:
(a) {1,2,3,4,4,5}   (b) {1,2,3,5}
(c) {1,3,2,4,5}   (d) {1,1,3,2,4,5}
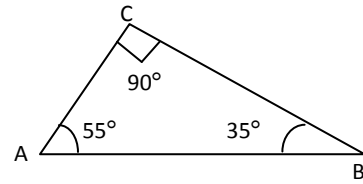
Q. No.7. Square root of 121 is:
(a) 10   (b) 11   (c) 12   (d) 21

Q. No.8. Correct number written in binary system (base-2) is:

    (a) $(101111)_2$ (b) $(11211)_2$ (c) $(2110)_2$ (d) $(12103)_2$

Q. No.9. Set of first five natural numbers that are divisible by 2 and 5 is:

    (a) $\{10,20,30,40,50\}$ (b) Set of first five natural numbers

    (c) $\{2,5,10,12,14\}$ (d) $\{2,5,10,15,16\}$

Q. No.10. Pair of complementary angles in the given triangle is:

    (a) 55°, 90°   (b) 35°, 90°

    (c) 90°   (d) 55°, 35°

Q. No.11. Aslam got an insurance policy of amount Rs.100,000 for 30 years. On Aslam's sudden death, his heirs received an amount in rupees, on which bonus amount was @ 4.2%. How much amount they received.

    (a) 4200   (b) 104200

    (c) 100000   (d) 142000

Q. No.12. Solution of $\sqrt{\dfrac{64}{25}}$ is:

    (a) $1\dfrac{1}{5}$ (b) $1\dfrac{3}{5}$ (c) $3\dfrac{1}{5}$ (d) $2\dfrac{2}{5}$

Q. No.13. Median of ungroup data 62,90,71,83,75 is:

    (a) 62   (b) 71   (c) 75   (d) 90

Q. No.14. Select the solution of $(1000-7)^2$

    (a) 993   (b) 1986   (c) 986049   (d) 999951

Q. No.15. Select the solution of $(3a+4)^2$

    (a) $9a^2+24a+16$ (b) $3a+12a+4$

    (c) $6a^2+12a+8$ (d) $9a^2+14a+16$

Q. No.16. Solution of subtraction of $7-x-x^2$ from x^3+x^2+x-4 is:

    (a) x^3+3 (b) x^3+x^2+x-4

    (c) x^2+3 (d) $x^3+2x^2+2x-11$

Q. No.17. If A = $\{1,2,3,4,5\}$ B = $\{2,4,6,8,10\}$ then $A \bigcap B$ is:

    (a) $\{1,2,3\}$ (b) $\{2,4,6\}$

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

Q. No.18. If price of two English books is Rs 50.50 and price of one Urdu book is Rs. 19.10 then average price of each item in rupees is:

    (a) 69.60   (b) 50.50

    (c) 34.80   (d) 23.20

Q. No.19. Solution of $x+5-(3x-\overline{2x-3})$ is :

    (a) 8   (b) 2   (c) $3x+4$ (d) $5x-2$

Q. No.20. In the following frequency distribution table, frequency shown by tally mark correctly is:

C.I	Tally Marks	Frequency
1-----5		8
6----10		3
11---15		5

   (a) ҢҢIIII, III, ҢҢ   (b) IIIIIIII, III, IIIII
   (c) ҢI ҢҢ, Ң, ҢҢI   (d) ҢҢҢI, III, IIIII

Q. No.21. If a line segment m $\overline{AB}$ = 6cm is divided into ratio of 1:1 then length of each new line segment is
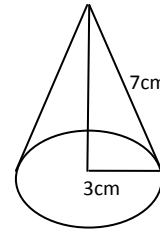   (a) 6cm   (b) 5cm   (c) 3cm   (d) 2cm

Q. No.22. In a right circular cone is of radius = 6cm, height = 4cm , then its volume will be:
   (a) $24.17 cm^3$ (b) $25.14 cm^3$ (c) $150.86 cm^3$ (d) $542.57 cm^3$

Q. No.23. Curved surface area of given right circular cone is:
   (a) $21 cm^2$ (b) $66 cm^2$
   (c) $10 cm^2$ (d) $200 cm^2$

Q. No.24. Product of 2.25 and 1.3 is:
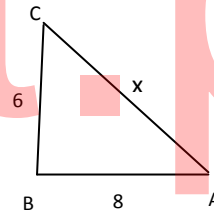   (a) 4.000   (b) 2.925   (c) 3.550   (d) 2.725

Q. No.25. Mean of the data 10,8,6,8,8 is:
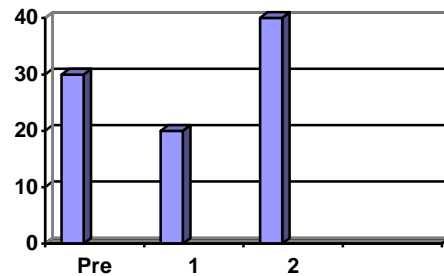   (a) 32   (b) 10   (c) 8   (d) 27

Q. No.26. In a given right angle triangle, value of x is:
   (a) 10   (b) 14
   (c) 2   (d) 48

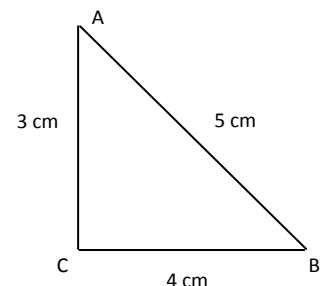**Q. No.27.** Graph shows strength of students in each class of a school, total number of students in these classes are:

   (a) 20   (b) 90

   (c) 30   (d) 40

Q. No.28. Area of triangle of given vertices is:
   (a) $6 cm^2$ (b) $36 cm^2$
   (c) $12 cm^2$ (d) $19 cm^2$

Q. No.29. Volume of sphere of radius 6 cm is:

    (a) $36\pi\, cm^3$ (b) $108\,\pi\, cm^3$ (c) $200\,\pi\, cm^3$ (d) $288\,\pi\, cm^3$

Q. No.30. In the following perfect square expression the missing term is:

    $(\ ) - 12x + 9$

    (a) $4x^2$ **(b)** $16x^2$ **(c)** x^2 **(d)** $2x^2$

Q. No.31. If value of Motor cycle is Rs.54000 then in case of its insurance, amount of first premium paid @ 10% is:

    (a) Rs 540000   (b) Rs 5400   (c) Rs 540   (d) Rs 54000

Q. No.32. If base area of cone is 18 cm^2 and its height is 6 cm then its volume is

    (a) 108cm^3 (b) 36cm^3 (c) 6cm^3 (d) 3cm^3

Q. No.33. If written price of an item is Rs 1500 then commission @ 5% on the item is:

    (a) Rs 20   (b) Rs 1500   (c) Rs 1575   (d) Rs 75

Q. No.34. If $4, 8 \in Q$ and $4 < 8$ then $-5 < 0 \in Q$ such that $4(-5) > 8(-5)$ property used, is:

    (a) Trichotomy Property   (b) Transitive Property

    (c) Multiplicative Property   (d) Additive Property

Q. No.35. Length of side of a square of area 107m^2 (in m) is:

    (a) 10.3   (b) 10.4   (c) 10.5   (d) 10.6

Q. No.36. Five men have 20 kg food sufficient for 7 days. In this statement inverse proportion exists between:

    (a) men and food   (b) food and days   (c) men and days   (d) men , food and days

Q. No.37. Factorization of $x^2 + 8x - 20$ is:

    (a) (x+10) (x-2)   (b) (x-10) (x+2)

    (c) (x-10) (x-2)   (d) (x+10)(x+2)

Q. No.38. Amount of income tax of a person @ 10% whose annual income is Rs125000 while amount of rebate is Rs 100000 will be:

    (a) Rs. 250   (b) Rs. 2500   (c) Rs. 350   (d) Rs. 3500

Q. No.39. Number of classes formed from data 45,65,80,96,80,75,56,96,62,78 if size of class interval is taken as 10

    (a) 5.1   (b) 51   (c) 10   (d) 6

Q. No.40. Value of y from simultaneous linear equations 2x+3y = 7, 2x+y = 3 is

    (a) 1   (b) 4   (c) 2   (d) 8