Version 1

GRADE-8 EXAMINATION-2009

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) Students are not allowed to take the Question Paper/Answer Sheet out of the Examination Centre.
4) 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:

	(a)	(b)	(c)	(d)
Q.1	☐	☐	☑	☐

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

Part-(A)

MULTIPLE CHOICE QUESTIONS

TIME ALLOWED: 1:40 hour

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 (-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

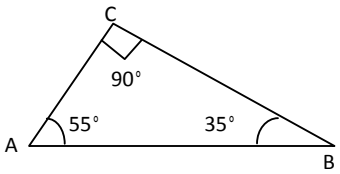
Q. No.8. Correct number written in binary system (base-2) is

(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 diagram



(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%

(a) 4200 (b) 104200
(c) 100000 (d) 142000

Q. No.12. Solution of $\sqrt{\frac{64}{25}}$

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

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

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

Q. No.14. $(1000-7)^2 =$ _____

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

Q. No.15. $(3a+4)^2=$ _____

(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 $A \cap B$ 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 is (in rupees)

(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 frequency distribution table, frequency shown by tally mark Correctly is

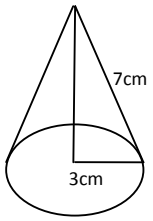
C.I	Tally Marks	Frequency
1-----5		8
6----10		3
11---15		5

(a) 𝍸𝍸IIII, III, 𝍸𝍸I (b) IIIIIIII, III, IIIII
(c) 𝍸I 𝍸𝍸, 𝍸, 𝍸𝍸I (d) 𝍸𝍸𝍸I, 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, radius = 6cm, height = 4cm , its volume will be
(a) $24.17cm^3$ (b) $25.14cm^3$ (c) $150.86cm^3$ (d) $542.57cm^3$

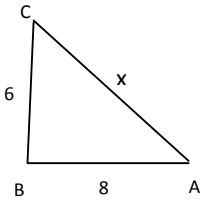
Q. No.23. Curved surface area of given right circular cone is
(a) $21cm^2$ (b) $66cm^2$
(c) $10cm^2$ (d) $200cm^2$



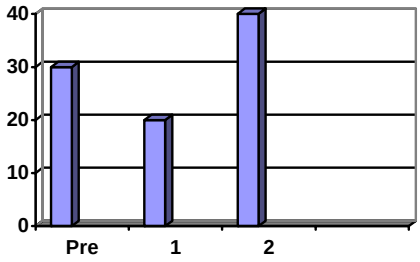
Q. No.24. Product of 2.25 and 1.3 is
(a) 4.000 (b) 2.925 (c) 3.550 (d) 2.725

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

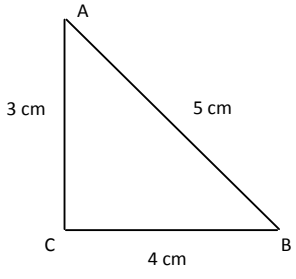


Q. No.27. Graph shows strength of students in each class of a school, total number of students in these classes are



(a) 20 (b) 90
(c) 30 (d) 40

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



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. Missing term in expression, if it is a perfect square $(\ ) - 12x + 9$ is

(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. "If 5 men have 20 kg food sufficient for 7 days." In the 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

(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

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Q.No.	41	42	43	44
Marks:				

GRADE-8 EXAMINATION 2009

Roll Number: | | | - | | | | - | | | |

Signature of Supervisor:_____ Date:_____

Mathematics Part-(B)
OPEN ENDED QUESTIONS

TIME ALLOWED: 1:20 hour

Specific Instructions: This part has 4 Open Ended Questions. Please use blank space below the question to write the answer.

Q. No.41.

(a) **If price of one table is Rs. 700 then what will be the *price* of 2 such tables.** **(2)**

(b) **If 5 men complete work in 100 days then how many men will complete the same work in 20 days** **(3)**

(c) **For a family of 5 members Rs 2000 are sufficient for 10 days for how many days Rs 1600 will be sufficient for family of 4 members.** **(5)**

Q. No.42.

(a) Convert 5 in base 2 **(2)**

(b) Convert $(121)_5$ **in decimal system** **(3)**

(c) Solve $75 - (134)_5 - (1101)_2$ **and give your answer in base 5** **(5)**

Q. No.43.

(a) **Find value of** $a^2 - b^2$, **if a – b = 3 and a + b = 4** **(2)**

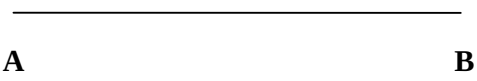
(b) **Solve** $(27)^2$ **by formula** $(a-b)^2$ **(3)**

(c) **Find ab if a + b = 17 a – b = 13** **(5)**

Q. No.44.

(a) Draw a line segment of 4.6cm **(2)**

(b) Construct a perpendicular bisector on the given line **(3)**



(c) Construct a Rhombus of diagonals 3.8 cm and 5.2 cm **(5)**