Sig. of Supdt...................... | **General Mathematics (9th)** | Roll No.............................
Fresh / Reappear

Fic. No.....................................

Fic. No.....................................

Time allowed: 3 Hrs   **General Mathematics (9th)**   **Marks: 75**
Fresh / Reappear

Note: There are three sections of the paper, A, B & C. Carefully read the instructions for each section and attempt accordingly. Attempt all questions of section - (A) and return it to the superintendent within the given time.

Time: 20 Mins   **Section "A"**   **Marks: 15**

Q.1 Write the correct option i.e. A, B, C or D in the empty box provided opposite to each part. Cutting, erasing and over writing will not be awarded.

i. There are _____ types of sales taxes.   [A]
   (A) 3   B. 6   C. 9   D. 5

ii. (Rate) x (Sales) = ——————   ?? [B]
   A. Income Tax   B. Commission   (B) Tax   D. Gross Income

iii. The number or quantity that is written in the form of exponent is called _____ form.   [C]
   A. Radical   B. Logrithmic   (C) Exponential   D. Radicand

iv. Arithmetic mean between $6\sqrt{5}$ and $4\sqrt{5}$ is _____ .   [D]
   A. $6\sqrt{5}$ B. $4\sqrt{5}$ (C) $10\sqrt{5}$ D. $5\sqrt{5}$

v. $(A \cup B)^C = $ ——————   [C]
   A. $(A \cap B)^C$ B. $A^C \cup B^C$ (C) $A^C \cap B^C$ D. $B^C \cup A^C$

vi. The point (−6, 3) lies in _____ quadrant.   [B]
   A. 1st (B) 2nd C. 3rd D. 4th

vii. The most frequent value in the data is called _____   [D]
   A. GM   B. AM   C. Median   (D) Mode

viii. _____ of two ratios is called proportion.   [D]
   (A) Equality   B. Sum   C. Difference   D. Inequality

ix. Decimal form of 0.5% is _____   [C]
   A. 0.5   B. 0.05   (C) 0.005   D. 0.0005

x. Ushr is payable on _____   [ ]
   A. Vegetable   B. Fruit   C. Crop   (D) All of these

xi. Cost price is Rs. 320 and selling price is Rs. 365 then profit is _____   [B]
   A. Rs. 35   (B) Rs. 45   C. Rs. 55   D. Rs. 60

xii. Markup is the profit received by _____   [ ]
   (A) Bank   B. Customer   C. Government   D. None

xiii. The ratio of exchange of currency is called _____   [ ]
   (A) Exchange Rate   B. Financing   C. Down Payment   D. Leasing

xiv. Logarithms having base 10 are called _____ logarithms.   [A]
   (A) Common   B. Briggs   C. Natural   D. Both A and B

xv. Nisba of gold for payment of zakat is _____ .   [ ]
   (A) 7.5gm   B. 52gm   C. 87gm   D. 609gm

General Mathematics (9th)
Fresh / Reappear

Time: 2 hours 40 minutes.

Section "B"   Marks: 36

Q.2   Attempt any **NINE** parts. All parts carry equal marks.

   i.   Simplify with the help of logarithm.

   (238.2) (9.506)

   ii. Mr. Hashir bought a plot and paid a tax of Rs. 20,000 at the rate of 2%. Find value of the plot.

   iii. Find the value of "x" when 16:x :: x:9.

   iv. Ms. Neelam paid Rs. 4890 as zakat. She had Rs. 50,000 cash and some jewellery. Find the value of her jewellery.

   v.   Find the loss when cost price is Rs. 900 and loss is 2%.

   vi. Convert he following currencies in Pakistani rupees when (1 dollar = Rs. 131 and 1 Euro = Rs. 112)

   a. 1395 Euro   b. 375 dollars

   vii. Find 12th term of the G.P 4, 8, 16, ...

   viii. Find the profit or loss percent when cost price is Rs. 760 and selling price is Rs. 885.

   ix. Simplify $\left(\dfrac{x^{2a}}{x^{a+b}}\right)\left(\dfrac{x^{2b}}{x^{b+c}}\right)\left(\dfrac{x^{2c}}{x^{c+a}}\right)$.

   x.   Insert two arithmetic mean between 15 and 27.

   xi. Convert the following decimal fractions into percentages.

   a. 021   b. 0.007

   xii. Draw the graph of the equation x + 2y = 6.

Section "C"   Marks: 24

Note: Attempt any **THREE** questions. All questions carry equal marks.

Q.3   If ∪ = {1, 2, 3, 4,...,20}, A = {2, 4, 6,...,20}, B = {1, 3, 5,...,19} and C = { } then find

   i. $A^{c} \cap B^{c}$

   ii. $B^{c} \cup C^{c}$

Q.4   Find the Harmonic Mean (HM) of the following data.

   5, 6, 8, 9, 10

Q.5   Find mode for the following data.

C.I	10 – 14	15 – 19	20 – 24	25 – 29	30 – 34
f	1	3	7	12	2

Q.6   If A = {1, 2, 3, 4, 5, 8, 9} and B = {3, 4, 5, 6, 7} then verify by Venn diagram.

   $A \cap B = B \cap A$