

GOVT. CADET COLLEGE MUZAFFARABAD ENTRY TEST 2023

Model Paper

| Paper | Class | Type | Marks | Date | Time Allowed |
|------------------------|-----------------|------------|------------------------|--------------|--------------|
| Mathematics | 8 th | Subjective | 100 | --/ --/ ---- | 90 Min. |
| Roll No. (In figures): | | | Sign of Dy. Sup. _____ | | |
| Roll No. (In words): | | | | | |

Instructions:

- 1) Attempt all the questions.
- 2) Use of Calculator and Protector is not allowed.
- 3) Do not tear any portion of the question paper.
- 4) Do not write anything on the paper.

Q.1. Write/solve short answers of the following. (12)

- i Simplify $87 + \left[13 - \left\{ 12 - \left(24 \div 2 - 10 \right) \right\} \right]$
- ii 3 men can do job in 18 days. How many days will be required by 6 men to do the same job?
- iii If $A = \{2, 4, 6, 8, 10\}$, $B = \{3, 6, 9, 11, 15\}$ and $C = \{5, 10, 15, 20\}$,
Prove that $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$
- iv What is the height of triangle that has an area of 50 cm^2 and base of 8 cm?
- v Solve the linear Equation $\frac{1}{2}x - 3 = \frac{4}{3}$
- vi Find the square root of 19,600

Q.2. Sana bought a toy for Rs.450, after some month she sold it for Rs.360. Find her loss in percentage. (12)

Q.3. Simplify $\left[2\frac{1}{5} \div \left\{ 1\frac{1}{5} + \left(1\frac{1}{5} \times 3\frac{1}{5} - 3\frac{1}{5} \right) \right\} \times 1\frac{4}{5} \right]$ (12)

Q.4. If a = 4, b = 6, c = -2, then find the value of $\frac{a^2c^2 + b^2c^2 - bc^2}{2}$ (12)

Q.5. Hina buys a laptop for Rs. 45,000 and pays 16% general sales tax. What is the amount of the tax? (12)

Q.6. (a) Solve the Equation $\frac{3x+1}{16} + \frac{2x-3}{7} = \frac{x+3}{8} + \frac{3x-1}{14}$ (06)

(b) Simplify using formula if $9a^2 - (b+c)^2$ (06)

Q.7. Draw a line perpendicular to \overline{AB} through a point p lying outside it. (12)

Q.8. (a) Define the following

(i) Circle (b) Circumference (iii) Sector (iv) Chord (08)

(b) The radius of circle is 10 cm. What is the length of its circumference? (08)