

MARTHOMA RESIDENTIAL SCHOOL, THIRUVALLA

SECOND TERMINAL EXAMINATION 2017-2018

MATHEMATICS

CLASS VII

TIME: 1¹/₂ HRS

MARKS: 80

Fill in the blanks

- (1) The base angles of an isosceles triangle are _____
- (2) $(2)^{-2} = \frac{1}{\quad}$
- (3) The numerical coefficient of $-7x^2yz$ is _____.
- (4) The scientific form of 0.02569 is _____.
- (5) $-2(x-y) = \quad$
- (6) 28m 9cm = _____ cm.
- (7) $\frac{4}{3} \quad \frac{1}{4}$ [$</>$]
- (8) $2^0 = \quad$
- (9) $\frac{251}{5} = \quad$ (express in decimal form)
- (10) $0.2962 \times 1000 = \quad$

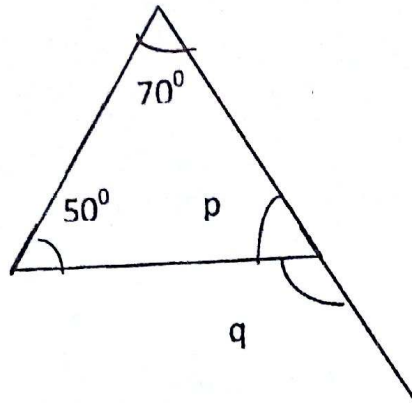
(10)

Three mark question

- (1) Express 975 as a product of powers of their prime factors.
- (2) Simplify $[(6^3)^2 \times 6^4] \div 6^5$
- (3) Add: $(2x^2 - 3)$; $(4x^2 - 4)$
- (4) Simplify $5y^2 + 3y - 8 - 2y^2 - 4y + 3$
- (5) Solve $-\frac{3}{5} \times \frac{35}{7} \times -\frac{1}{6}$
- (6) If the cost of 4 toffees be equal to selling price of 3 toffees, then find the gain%.
- (7) Arrange in ascending order: $-\frac{5}{2}, \frac{3}{4}, \frac{5}{7}, -\frac{3}{7}$

(P.T.O)

- (8) The hypotenuse of a right angled triangle is 10cm. If one of the remaining sides is 8cm, find the length of the other side.
- (9) Represent $-\frac{5}{3}$ on the number line.
- (10) Find the value of p, q in the following figure



Four mark questions

- (1) Simplify $-\frac{5}{7} + 2\frac{1}{3} + 4\frac{2}{5}$
- (2) Construct ΔABC with sides $AB=5\text{cm}$, $BC=8\text{cm}$ and $AC=7\text{cm}$.
- (3) Simplify $\frac{4^3 \times 6^8}{24^2}$
- (4) Evaluate $(5m+3y)(8m-5y)$ at $m=2$, $y=3$
- (5) Find 5 rational numbers between -4 and -5

Five mark questions

- (1) By what number should we divide $(-45)^{-1}$ so as to get the quotient $(90)^{-1}$?
- (2) Construct a ΔXYZ such that $XY=7.5\text{cm}$, $XZ=6.5\text{cm}$ and $\angle ZXY=90^\circ$.
- (3) Two cows were sold for Rs.12,000 each, one at the gain of 20%, another at loss of 20%. Find the loss% or gain% in the entire transaction.
- (4) Subtract $6b^2 - 6c^2$ from the sum of $8b^2 + 2bc$, $-4b^2 - 7bc - c^2$ and $9bc + 5c^2$.