

KAHARIAN GIRLS CADET COLLEGE KALLAR KAHAR

ENTRANCE TEST FOR CLASS 8th / 9th , 2019

PAPER MATHS

Total Time: 60 minutes

Total Marks:50

Note: Attempt all questions. Use of calculator not allowed.

Q:1 Verify De Morgan's Law if:

$$U=N, A=\Phi \text{ and } B=P \quad (5)$$

Q:2 Simplify the following rational numbers.

$$(i) \quad \frac{11}{15} + \frac{8}{15} + \left(\frac{-14}{15}\right) \quad (ii) \quad \frac{1}{4} \times \left(\frac{-2}{3}\right) \times \left(\frac{-5}{2}\right) \quad (5)$$

Q:3 10 men have ration for 21 days in a camp. If 3 men leave the camp, for how many days will the ration be sufficient for the remaining men? (5)

Q:4 Write the square root of 900. (5)

Q:5 Factorize $a^4b^4x^2 - 2a^2b^2c^2d^2xy + c^4d^4y^2$ (5)

Q:6 A 96cm long wire is given the shape of a rectangle such that its length is 12cm more than the breadth. Find the length and breadth of the rectangle. (5)

Q:7 What principal amount is taken to bring Rs. 640 as profit the rate of 4% in 2 years? (5)

Q:8 Find the solution set with the method of cross multiplication. (5)

$$2x + y = 5$$

$$3x - 4y = 2$$

Q:9 Write the product of the following binomials by using identity (5)

$$(i) \quad (2x + 9)(2x - 3) \quad (ii) \quad (8a + 7)(8a - 3)$$

Q:10 The product of two polynomials is $6y^3 - 11y^2 + 6y - 1$. If one polynomial is $3y^2 - 4y + 1$, then find the other polynomial. (5)