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=Φ and B=P (5)

Q:2 Simplify the following rationals numbers.

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

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

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)

Time: 60 mints **Marks: 60**

KAHARIAN GIRLS CADET COLLEGE
KALLAR KAHAR
Entrance test 8th Class 2023
Paper: Mathematics

NOTE: All questions are compulsory. Calculators are not allowed. Write down formula where necessary and solve questions step by step.

All questions carry equal marks. (12×5=60)

1. If U = Set of integers and W = Set of whole Numbers, then find compliment of Set W?
2. If a man can weave 450m cloth in 6 hours. How many meters of cloth can he weave in 14 hours?
3. Prove $\frac{1}{4}(\frac{8}{9} - \frac{12}{15}) = (\frac{1}{4} \times \frac{8}{9}) - (\frac{1}{4} \times \frac{12}{15})$
4. Factorize $4a^2 - 25$?
5. Express $\frac{17}{45}$ $as\ decimal$, also point out whether it is terminating or recurring?
6. The diameter of a circle is 11.6cm. Find the circumference of the circle?
7. Simplify and express in simple form

   $(-\frac{2}{7})^5 \times (-\frac{2}{7})^{-2} \times [\left(-\frac{2}{7}\right)^2]^{-1}$

8. What should be added to $3 + 2x - x^3y^2 + 4x^2y$ to get $2x^3y^2 + x^2y - 3x - 1$?
9. A truck covers distance of 360 Km in 5 hours. Find its speed in Km/h?
10. Solve $5\frac{x}{2} = 10$?
11. Find the wealth of Ibrahim if he paid Rs. 7500 as Zakat?
12. Write constants and variables involved in $3l^2 - 4n^2$?

Time: 60 mints **Marks: 60**

KAHARIAN GIRLS CADET COLLEGE
KALLAR KAHAR
Entrance test 8th Class 2024
Paper: Mathematics

NOTE: All questions are compulsory. Calculators are not allowed. Write down formula where necessary and solve questions step by step.

All questions carry equal marks. (12×5=60)

1. Verify commutative property: $\frac{7}{10}+\frac{-2}{5}=\frac{-2}{5}+\frac{7}{10}$
2. Suppose a truck travels 90 km in the first hour and 80 km in the second hour. What is the average speed of truck.
3. Factorize 784.
4. Find square root of $\frac{289}{625}$ by division method.
5. Simplify $(5m^2 - n)^2$ using $(a+b)^2 = a^2 - 2ab + b^2$
6. Find value of $\frac{x^3y-2x}{xz}$ if $x=3, y=-1$ and $z=-2$
7. Find circumference of a circle if its radius is 2.4 cm.
8. If radius of a circle is 5 cm then find area of the circle.
9. Write constants and variables in $5m^2-6l+7$
10. If length and width of a rectangle is 5cm and 3cm respectively. Find its Area.
11. Simplify 70 + [10 + 20 – 2 {8 -2 + 3}]
12. If U = {1,2,6,9} & B = {1, 2, 9} then find B^c