



**INDIAN SCHOOL MUSCAT
MIDDLE SECTION
SECOND PERIODIC TEST - 2018-19
ANSWER KEY - MATHEMATICS (SET-B)**



CLASS 8

Q.NO1

SECTION A - FILL IN THE BLANKS

- (a) Reciprocal of $\left(\frac{-7}{2}\right)^{-3}$ is $\left(\frac{-2}{7}\right)^{-3} / \left(\frac{-7}{2}\right)^3$
- (b) Factors of $(x^2 + 5x)$ are x and (x + 5)
- (c) Standard form of 0.0000579 = 5.79×10^{-5}
- (d) The HCF of $3x^2y$ and $-15x^3y^2$ is $3x^2y$
- (e) $(2^{-1} \times 5^{-1} \times 3^{-1})^0 = \underline{1}$

Q.NO2

SECTION B - '1' MARK QUESTIONS

- (a) Factorise : $x(2x - 5) - 7(2x - 5) = (2x - 5)(x - 7)$
- (b) Factorise: $(p^2 - 49) = (p^2 - 7^2) = (p + 7)(p - 7)$
- (c) Write the usual form of $2.12 \times 10^{-4} = 0.000212$
- (d) Evaluate : $\frac{2^5 \times 2^{-13}}{2^{-7}} = \frac{2^{5+(-13)}}{2^{-7}} = \frac{2^{-8}}{2^{-7}} = 2^{-1} = \frac{1}{2}$
- (e) Divide $44xy^2z^3$ by $11xyz^2 = 4yz$

Q.NO

SECTION - C ('2' MARK EACH - TOTAL (10 MARKS))

- 3 Find the value of 'm' for $\left(\frac{2}{7}\right)^{2m+6} \times \left(\frac{2}{7}\right)^3 = \left(\frac{2}{7}\right)^{m+5}$ or $\left(\frac{2}{7}\right)^{2m+6+3} = \left(\frac{2}{7}\right)^{m+5}$ or $\left(\frac{2}{7}\right)^{2m+9} = \left(\frac{2}{7}\right)^{m+5}$
Or $2m+9 = m+5$ or $2m - m = 5 - 9$ or $m = -4$

- 4 Evaluate: $\frac{2^{-6} \times 15^{-6} \times 125}{5^{-7} \times 6^{-6}} = \frac{2^{-6} \times 3^{-6} \times 5^{-6} \times 5^3}{5^{-7} \times 2^{-6} \times 3^{-6}} = \frac{5^{-6+3}}{5^{-7}} = 5^{-3-(-7)} = 5^4 = 625$

- 5 Factorise and divide : $4xy(9m^2 - 6mn + n^2) \div 2y(3m - n)$

$$4xy(3m - n)^2 \div 2y(3m - n) = 2x(3m - n)$$

- 6 Factorise : $p^2 - 12p - 45 = p^2 - 15p + 3p - 45 = p(p - 15) + 3(p - 15) = (p - 15)(p + 3)$

- 7 Factorise completely: $(y - 3)^2 - (y + 3)^2$
 $= \{(y - 3) + (y + 3)\} \{(y - 3) - (y + 3)\}$
 $= (y - 3 + y + 3)(y - 3 - y - 3)$
 $= 2y(-6)$
 $= -12y$