



**INDIAN SCHOOL MUSCAT**  
**MID - TERM EXAMINATION - 2017- 18**

**CLASS: 7**

**SUB: MATHEMATICS**

**TOTAL MARKS : 80**

**DATE: 12.09.2017**

**DURATION : 2 ½ hrs**

**INSTRUCTIONS: a) ANSWER ALL THE QUESTIONS**

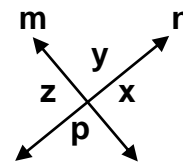
- b) (SECTION – A) – Q.NO (1 TO 4) – ('1' MARK EACH)**
- c) (SECTION – B) – Q.NO ( 5 TO 10) – ('2' MARKS EACH)**
- d) (SECTION – C) – Q.NO (11 TO 18) – ('3' MARKS EACH)**
- e) (SECTION – D) – Q.NO (19 TO 28) – ('4' MARKS EACH)**

**(SECTION – A)**

- 1) Find the measure of supplementary angle to  $77^\circ$**
- 2) Express 87644.12 in scientific notation**
- 3) Identify the term which contains  $a^2$  and give the coefficient of  $a^2$  in the expression  $2a - 5a^2b$**
- 4) Find the value of:  $[- 2 + (- 9 + 4)]$**

**(SECTION – B)**

- 5) Find the sum of  $9x - 3y + 7$  and  $3x + 7y - 11$**
- 6) Which is greater:  $\{(-24) \div (-8)\}$  or  $\{(-24) \div 8\}$  ? ( show the working)**
- 7) Represent  $\frac{9}{-5}$  on the number line.**
- 8) Express 432 in exponential form.**
- 9) Line m and line n are intersecting lines and  $\angle y = 95^\circ$   
Find the measure of  $\angle x$ ,  $\angle z$  and  $\angle p$**



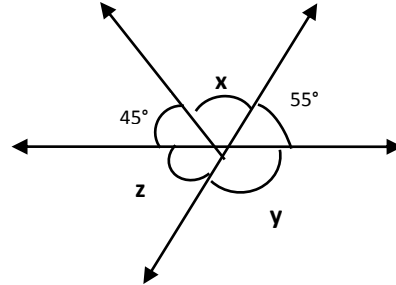
- 10) Solve the equation:  $8y + 9 = 25$**

**(SECTION – C)**

- 11) Find 4 rational numbers between  $\frac{-1}{5}$  and  $\frac{-1}{7}$**
- 12) Subtract  $7a^3 - a^2 + 12$  from  $9a^3 - 6a^2 - 2$**
- 13) Solve:  $4(2a + 3) = 44$**
- 14) Find the product :  $\frac{-4}{9} \times \frac{-27}{8}$**
- 15) Evaluate:  $[(-36) \div 12] \div [(-11) - (-8)]$**

16) Find the value of  $[(7^2)^3 \times 7^4] \div 7^8$  using laws of exponents.

17) Find the measures of  $\angle x$ ,  $\angle y$  and  $\angle z$



18) Which is greater?  $2^5$  or  $(6^3 - 5^2)$

(SECTION – D)

19) Find the product using suitable property:

i)  $125 \times (-35) + (-65) \times 125$

ii)  $4 \times (-57) \times 25$

20) Arrange the rational numbers in ascending order:  $\frac{4}{9}, \frac{-5}{6}, \frac{-1}{2}, \frac{13}{18}$

21) Find the value using the laws of exponents:  $\frac{3^3 \times 2^6 \times 5^3}{16 \times 9 \times 25}$

22) Subtract the sum of  $(-410)$  and  $120$  from  $900$

23) Write equations for following statements:

i) One third of a number plus 5 is 8.

ii) 2 is subtracted from seven times  $m$  gives 11

iii) 10 times  $p$  is 90.

iv) Three fifth of  $x$  is 12.

24) Simplify by using laws of exponents: i)  $(3^0 \times 7^0) + 6^0$       ii)  $(a^6 \times a^3) \div a^8$

25) a) Find the sum:  $\frac{-5}{6} + \left(\frac{4}{9}\right)$

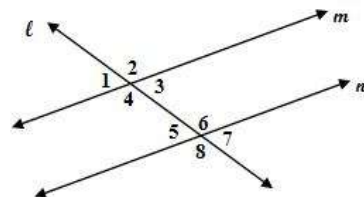
b) Find the quotient:  $\frac{7}{8} \div \left(-\frac{21}{4}\right)$

26) Given that  $m \parallel n$  and line  $l$  is the transversal.

If  $\angle 2 = 135^\circ$  find the measures of:

a)  $\angle 3$  and  $\angle 4$

b)  $\angle 6$  and  $\angle 7$



Write the reasons support your answers.

27) From the sum of  $b^2 - 2ab + a^2$  and  $2b^2 + 2ab + 3a^2$  subtract  $a^2 + b^2 + 2ab$

28) Simplify  $8a^2 - 3a + 7a - 5a^2$  and find the value of when  $a = 1$