

**INDIAN SCHOOL MUSCAT – MIDDLE SECTION – DEPARTMENT OF MATHEMATICS – ( 2017 – 18)**  
**FINAL EXAMINATION – MATHEMATICS – MARKING SCHEME – CLASS 7**

**SECTION A**

Qns		Marks
1.	<b>Area of a parallelogram is 500 m<sup>2</sup> .The base of the parallelogram is 50 m. Find its height.</b> A=b×h 500=50×h ,Therefore h=500÷50=10m	$\frac{1}{2} + \frac{1}{2}$
2.	<b>Find the mean of first four odd natural numbers.</b> (1+3+5+7)÷4=16÷4=4	$\frac{1}{2} + \frac{1}{2}$
3.	<b>Write the equation for ‘thrice a number when increased by 5 gives 44’.</b> 3x + 5 = 44	1
4.	<b>Find the ratio of 3km to 300m.</b> 3000:300 = 10:1	$\frac{1}{2} + \frac{1}{2}$
5.	<b>The lengths of two sides of a triangle are 7 cm and 10 cm. Between which two numbers can length of the third side fall?</b> Between (10 – 7) = 3cm and (10 + 7) = 17cm	$\frac{1}{2} + \frac{1}{2}$
6.	side = BC	1

**SECTION B**

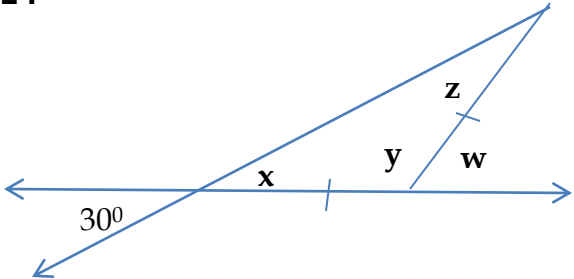
7.	<b>Out of 40 Students 8 are absent. What percent of students are present?</b> No. of Students present (40 – 8)= 32 Percent of students present are $\frac{32}{40} \times 100 = 80\%$	$\frac{1}{2}$ $1 + \frac{1}{2}$
8.	<b>AREA = LENGTH x BREADTH</b> $= 5\frac{1}{4} \times 1\frac{1}{7} = \frac{21}{4} \times \frac{8}{7} = 168 \div 28 = 6 (3 \times 2)$	$\frac{1}{2} + \frac{1}{2}$ $\frac{1}{2} + \frac{1}{2}$
9.	(i) P( a vowel) = 5/9 (ii) P( letter D) = 1/9	1 1
10.	9y - 2 = 7 9y = 7+2                      1 m y = $\frac{9}{9}$ = 1                      1 m	
11.	7 + 13 = 20 > 16 13 + 16 = 29 > 7 16 + 7 = 23 > 13  Yes 7 cm , 13 cm, and 16 cm can be the sides of a triangle.	$\frac{1}{2}$ $\frac{1}{2} + \frac{1}{2}$ $\frac{1}{2}$
12.	(i) PR (ii) /Q (iii) FE (iv) D ( $\frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2}$ )	

**SECTION C**

13.	<b>An item was sold for Rs. 540 at a loss of 10% . What was its cost price?</b> Cp                      loss                      sp 100                      10%                      90 X                                              540  $X = \frac{540 \times 100}{90} = 600$	$\frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2}$ 1
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14.	MEAN = SUM OF ALL OBSERVATION ÷ NUMBER OF OBSERVATION = $414 \div 9$ = 46 $(\frac{1}{2} + 1\frac{1}{2} + 1)$	
15.	If the circumference of a circular disc is 132cm, find its area. $2\pi r = 132$ $2 \times \frac{22}{7} \times r = 132$ $r = \frac{132 \times 7}{22 \times 2} = 21\text{cm}$ $\text{Area} = \pi r^2 = \frac{22 \times 21 \times 21}{7} = 1386\text{cm}^2$	$\frac{1}{2}$  1 $1 + \frac{1}{2}$
16.	Construct a $\triangle ABC$ , such that AB=4.5cm , BC=6cm and CA=7cm. Draw AB=4cm Draw BC=6cm Draw CA=7cm Completing the triangle	$\frac{1}{2}$ $\frac{1}{2}$ 1 1 $\frac{1}{2}$ $\frac{1}{2}$
17.	Draw a line AB and draw another line CD parallel to AB at a distance of 7 cm from AB. Draw a line AB  Draw a perpendicular on it . Draw an arc on the perpendicular line, 7cm away from line AB.  Drawing of line CD parallel to AB	$\frac{1}{2}$ $\frac{1}{2}$ 1 $\frac{1}{2}$ $\frac{1}{2}$ 1
18.	$3X - 50 = 7$ $3X = 7 + 50$ $3X = 57$ $X = 57 \div 3$ $X = 19$ $(1 + \frac{1}{2} + \frac{1}{2} + \frac{1}{2} + \frac{1}{2})$	
19.	$(\frac{6}{9} - \frac{4}{9}) \times \frac{17}{5}$ 1m $\frac{2}{9} \times \frac{17}{5}$ 1m $\frac{34}{35}$ 1m	
20.	$-\frac{4}{5} \times \frac{9}{9} = -\frac{36}{45}$ $\frac{1}{2}$ m $-\frac{2}{3} \times \frac{15}{15} = -\frac{30}{45}$ $\frac{1}{2}$ m Any four rational numbers between them      (Each $\frac{1}{2}$ m)	
21.	any three equivalent R.NO: $-\frac{5}{7} \times \frac{2}{2} = -\frac{10}{14}$ 1m $-\frac{5}{7} \times \frac{3}{3} = -\frac{15}{21}$ 1m $-\frac{5}{7} \times \frac{4}{4} = -\frac{20}{28}$ 1m	
22.	$AB^2 = AC^2 - BC^2$ $= 17^2 - 8^2$ $= 289 - 64$ $= 225$ $AB \times \boxed{AB = 15} \times 15$ Ans: The length of the other side is 15 cm	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$
<b>SECTION D</b>		

23.	<p><b>Rs.6050 was borrowed at 5% rate of interest p.a. Find the interest and amount to be paid at the end of two years.</b></p> <p><math>SI = \frac{PRT}{100}</math> <math>= \frac{6050 \times 5 \times 2}{100} = \text{Rs.605}</math> Amount = P + SI = 6050 + 605 = Rs.6655</p>	$\frac{1}{2}$  2 $1\frac{1}{2}$															
24.	<p><b>Construct a <math>\triangle XYZ</math>, if it is given that <math>XY=6\text{cm}</math>, <math>\angle X=30^\circ</math> and <math>\angle Y=100^\circ</math> (use ruler and compasses to construct the special angle).</b></p> <p>Drawing line segment <math>XY = 6\text{cm}</math> Drawing <math>\angle X=30^\circ</math> (by using ruler and compasses)  Drawing <math>\angle Y=100^\circ</math> and completing the triangle</p>	$\frac{1}{2}$  $1\frac{1}{2}$  $1 + 1$															
25.	<p><b>Solve:</b> <math>4(t + 5) = 28</math></p> <p><math>28 \div 4 = (t + 5)</math> <math>7 = t + 5</math> <math>7 - 5 = t</math> <math>2 = t</math></p>	$\frac{1}{2}$  1  1  $\frac{1}{2}$  1															
26.	<p>a)</p> <p><math>\frac{-3}{8} + \frac{-5}{12}</math> LCM = 24</p> <p><math>\frac{-3 \times 3}{8 \times 3} + \frac{-5 \times 2}{12 \times 2} = \frac{-9}{24} + \frac{-10}{24} = \frac{(-9) + (-10)}{24} = \frac{-19}{24}</math></p>	$\frac{1}{2}$  $\frac{1}{2}$  $\frac{1}{2} + \frac{1}{2}$															
	<p>b) <math>\frac{-8}{13} \times \frac{39}{-4}</math> Cancellations Ans : 6</p>	1  1															
27.	<table><tr><td>Inner rectangle</td><td>outer rectangle</td></tr><tr><td><math>A=90 \times 75 \frac{1}{2} \text{ m}</math></td><td><math>L= 90+10=100 \frac{1}{2} \text{ m}</math></td></tr><tr><td><math>A = 6750\text{m}^2 \frac{1}{2} \text{ m}</math></td><td><math>B =75 +10 =85 \frac{1}{2} \text{ m}</math></td></tr><tr><td></td><td><math>A = 100 \times 85 \frac{1}{2} \text{ m}</math></td></tr><tr><td></td><td><math>A = 8500\text{m}^2 \frac{1}{2} \text{ m}</math></td></tr><tr><td colspan="2">Area of the path = <math>8500 - 6750 \frac{1}{2} \text{ m}</math></td></tr><tr><td colspan="2"><math>= 1750 \text{ m}^2 \frac{1}{2} \text{ m}</math></td></tr></table>	Inner rectangle	outer rectangle	$A=90 \times 75 \frac{1}{2} \text{ m}$	$L= 90+10=100 \frac{1}{2} \text{ m}$	$A = 6750\text{m}^2 \frac{1}{2} \text{ m}$	$B =75 +10 =85 \frac{1}{2} \text{ m}$		$A = 100 \times 85 \frac{1}{2} \text{ m}$		$A = 8500\text{m}^2 \frac{1}{2} \text{ m}$	Area of the path = $8500 - 6750 \frac{1}{2} \text{ m}$		$= 1750 \text{ m}^2 \frac{1}{2} \text{ m}$			
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28.	<p>The following table shows the number of girls and boys of a class who take part in different sports activities. Draw a double bar graph to represent the given data.</p> <table><tr><td>Sport</td><td>Basketball</td><td>Badminton</td><td>Athletics</td><td>Volleyball</td></tr><tr><td>No. of Girls</td><td>12</td><td>10</td><td>8</td><td>10</td></tr><tr><td>No. of Boys</td><td>14</td><td>12</td><td>14</td><td>6</td></tr></table> <p><b>PROPER SCALE , MARKING THE AXES PROPERLY</b> <span style="float:right;">( <math>\frac{1}{2}+\frac{1}{2}+ \frac{1}{2}</math> )</span> <b>DRAWING BARS CORRECTLY AND</b> <b>( <math>\frac{1}{2}+\frac{1}{2}+ \frac{1}{2}+\frac{1}{2}+ \frac{1}{2}</math> ) FOR EACH BAR</b></p>	Sport	Basketball	Badminton	Athletics	Volleyball	No. of Girls	12	10	8	10	No. of Boys	14	12	14	6	
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29.	<p><b>Find the measure of angle w ,x, y and z .</b></p> <p><math>x= 30^0</math> (VOA) <math>z=30^0</math>(Base angles of an isosceles triangle are equal <math>y=180^0 - (30^0+30^0)</math> <math>=120^0</math> <math>w= 180^0-120^0</math> (linear pair) <math>=60^0</math></p> 	1 1 1 1
30.	<p><b>PQ = AB</b> <b><math>\angle Q = \angle B</math></b> <b>QR = BC</b> <b>BY SAS CONGRUENCE RULE</b> <b><math>\triangle PQR \cong \triangle ABC</math></b></p> <p>( 1+1 +1+ ½+½)</p>	