



INDIAN SCHOOL AL WADI AL KABIR

Final Examination (2022-23)

Class: VII

Sub: MATHEMATICS

Max Marks: 80

Date: 06-03-2023

Set - II

Time: 3 hours

Instructions:

Section A: Multiple Choice Question (Q.1 to Q.5) & Source based Question (Q.6)

Section B: Short Answer Questions of 2 marks each (Q.7 to Q.15)

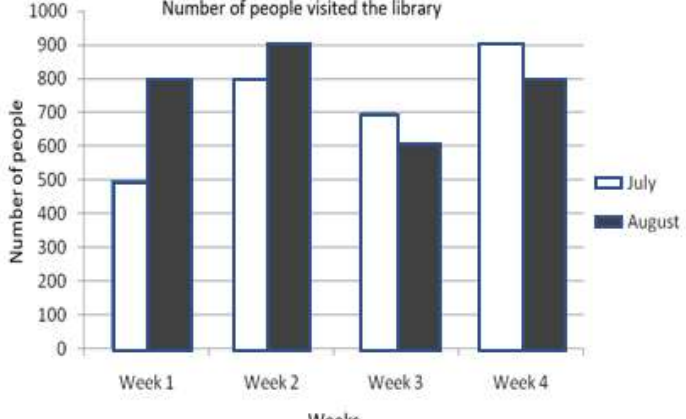
Section C: Long Answer Questions (Type – 1) of 3 marks each (Q.16 to Q.23)

Section D: Long Answer Questions (Type – 2) (Q.24 to Q.28)

& Case study Questions (Q.29 & Q.30) of 4 marks each

Section A: Multiple Choice Questions (Q.1 to Q.5) of **1** mark each

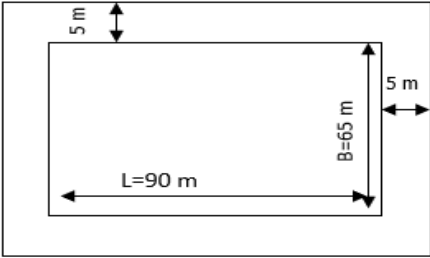
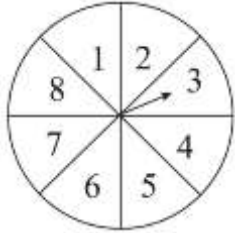
1.	The standard form of 7209898 is:							
	A	7.209898×10^5	B	7209898×10^7	C	7.209898×10^6	D	7.209898×10^4
2.	Set up an equation for the following statement: Seven times m plus 5 gets you 82.							
	A	$5m + 7 = 82$	B	$7m + 5 = 82$	C	$82 - 5m = 7$	D	$7m - 5 = 82$
3.	Find the mode of 11, 8, 10, 5, 11, 15, 11, 12, 9.							
	A	10	B	11	C	5	D	8
4.	30% of ₹ 4500 is:							
	A	₹1500	B	₹45	C	₹1350	D	₹900
5.	Jeet had a land which is in the shape of a parallelogram whose base is 15cm and height is 11cm. What is the area of the land?							
	A	126 cm^2	B	165 cm^2	C	36 cm^2	D	135 cm^2

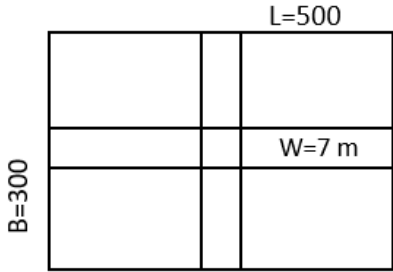
<p>Q6.</p>	<p>Source based Question (Q.6)-5 Marks</p> <p>The adjoining graph shows the number of people visited the library in a city in the month of July and August. Observe the graph and answer the following questions:</p>	 <table border="1" data-bbox="841 199 1523 615"> <caption>Number of people visited the library</caption> <thead> <tr> <th>Week</th> <th>July</th> <th>August</th> </tr> </thead> <tbody> <tr> <td>Week 1</td> <td>500</td> <td>800</td> </tr> <tr> <td>Week 2</td> <td>800</td> <td>900</td> </tr> <tr> <td>Week 3</td> <td>700</td> <td>600</td> </tr> <tr> <td>Week 4</td> <td>900</td> <td>800</td> </tr> </tbody> </table>	Week	July	August	Week 1	500	800	Week 2	800	900	Week 3	700	600	Week 4	900	800
Week	July	August															
Week 1	500	800															
Week 2	800	900															
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Week 4	900	800															

<p>I</p>	<p>Which week has the maximum number of visitors in the month of July?</p>							
	<p>A</p>	<p>Week 3</p>	<p>B</p>	<p>Week 1</p>	<p>C</p>	<p>Week 2</p>	<p>D</p>	<p>Week 4</p>
<p>II</p>	<p>Total number of visitors in the week 3 is:</p>							
	<p>A</p>	<p>600</p>	<p>B</p>	<p>1300</p>	<p>C</p>	<p>900</p>	<p>D</p>	<p>700</p>
<p>III</p>	<p>Which two weeks have the same number of visitors in August?</p>							
	<p>A</p>	<p>Week 3 & 1</p>	<p>B</p>	<p>Week 4 & 2</p>	<p>C</p>	<p>Week 1 & 4</p>	<p>D</p>	<p>Week 2 & 1</p>
<p>IV</p>	<p>What is the ratio of the visitors in the month of July to August in week 2?</p>							
	<p>A</p>	<p>8:9</p>	<p>B</p>	<p>5:8</p>	<p>C</p>	<p>7:6</p>	<p>D</p>	<p>9:5</p>
<p>V</p>	<p>In which week, the difference between the number of visitors in July & August is maximum?</p>							
	<p>A</p>	<p>Week 1</p>	<p>B</p>	<p>Week 2</p>	<p>C</p>	<p>Week 3</p>	<p>D</p>	<p>Week 4</p>

Section B: Short Answer Questions (Type – 1) of 2 marks each (Q.7 to Q.15)

<p>7.</p>	<p>Express as a product of prime factors in exponential form of 121×81.</p>
<p>8.</p>	<p>Find the value of $(7^8 \times 7^6) \div (7^{11})$ using laws of exponents.</p>
<p>9.</p>	<p>Draw a factor tree diagram to show the terms and factors for the following expression: $-5a^2 + 8ab$</p>
<p>10.</p>	<p>Find the median of the following data: 128, 117, 120, 122, 125, 110, 113.</p>

11.	Construct a triangle ABC, given that AB = 7 cm, BC = 6 cm and AC = 5 cm using ruler and compasses only.
12.	Janet bought a toy which costs ₹ 750. She sold it with a profit of 12%. Find the selling price of the toy.
13.	A triangular cardboard sheet has the area 91cm^2 and height 14cm . Find the base of the triangle.
14.	Geetha saves ₹ 1800 from her salary. If this is 9 % of her salary. What is her salary?
15.	Jyothi runs around a square park whose perimeter is 56 m. Find area of the square park.
Section C: Long Answer Questions (Type – 1) of 3 marks each (Q.16 to Q.23)	
16.	<p>A garden is 90 m long and 65 m broad. A path 5 m wide is to be built outside and around it. Find the area of the path.</p> 
17.	Construct a triangle PQR, given that PQ = 5 cm, QR = 6.5 cm and $\angle\text{PQR} = 60^\circ$ using ruler and compasses only.
18.	<p>Simplify these expressions and find their values if $x = 3$</p> $18x^2 + 2x - 15x^2 - 7x + 7$
19.	<p>The carnival game spinner shown contains 8 equal sectors. Find the probability of:</p> <ol style="list-style-type: none"> The pointer will stop on a number which is a multiple of 3. The pointer will stop on an odd number. The pointer will stop on a number greater than 5. 
20.	<p>Simplify and express in exponential form using the laws of exponents:</p> <ol style="list-style-type: none"> $(13^3)^5$ $5^2 \times 5^4$ $2^8 \div 2^3$
21.	<p>Ameena borrowed ₹ 8500 at 8% rate of interest p.a. for 3 years.</p> <ol style="list-style-type: none"> Find the simple interest. Find the amount to be paid.

22.	Using ruler and compasses, construct ΔXYZ such that $XY = 6$ cm, $YZ = 10$ cm and $m\angle X = 90^\circ$.	
23.	Two cross roads, each of width 7 m, cut at right angles through the centre of a rectangular park of length 500 m and breadth 300 m and parallel to its sides. Find the area of the cross roads.	
Section D: Long Answer Questions (Type – 2) (Q.24 to Q.28) & Case study (Q.29 &30) of 4 marks each		
24.	Simplify and find the value: $\frac{625 \times 9 \times 7^2}{49 \times 5^2 \times 3^2}$	
25.	If $A = 5 - 4x + 2x^2$ and $B = 2x - x^2 + 5$ then, find: a) $A + B$ and b) $A - B$	
26.	The marks (out of 100) obtained by a group of 10 students in a mathematics test are 85, 76, 90, 82, 35, 58, 56, 99, 94 and 75. Find the: (i) Highest and the lowest marks obtained by the students. (ii) Range of the marks obtained. (iii) Mean marks obtained by the group.	
27.	Construct ΔABC , given $m\angle A = 65^\circ$, $AB = 5.8$ cm and $m\angle B = 30^\circ$ using ruler and compasses only.	
28.	If ₹ 1250 is to be divided amongst Ravi, Raju and Roy in the ratio 2:3:5. How much money will each get?	

29. Case Study-1:

Jack and Seema went to buy some vegetables from the market. Jack bought $(3mn+4m)kg$ vegetables and Seema bought $(7mn - 4m + 5)kg$ vegetables from the market. Based on this situation answer the following questions:



- I) What is the total weight of vegetables Jack and Seema bought?
- II) Write the coefficient of the term: $(-4m)$
- III) What is the value of the expression $(3mn+4m)$ when $m = 5$ and $n = 2$?
- IV) Write the factors of the term: $(11m^2n)$

30. Case Study-2

A rectangular garden of 18m long and 16m wide. There is a flower bed in the middle of the garden in the form of a circle of radius 7m. Based on this situation answer the following questions: $(\pi = \frac{22}{7})$



- I)** What will be the area of the rectangular garden?
- II)** What will be the area of flower bed?
- III)** Find the area of the garden excluding flower bed.
- IV)** Find the cost of planting grass in the land excluding flower bed at the rate of ₹ 6 per m^2
