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CLASS 9 MATH TEST PAPER 2

Class 09 - Mathematics

Time Allowed: 1 hour

Maximum Marks: 30

Section A				
1.	$9^3 + (-3)^3 - 6^3 = ?$		[1]	
	a) 540	b) 486		
	c) 270	d) 432		
2.	The simplest form of $0.5\overline{7}$ is		[1]	
	a) $\frac{26}{45}$	b) $\frac{57}{99}$		
	c) $\frac{57}{100}$	d) $\frac{57}{90}$		
3.	If $g = t^{\frac{2}{3}} + 4t^{\frac{-1}{2}}$, what is the value of g when t = 64?	\sim	[1]	
	a) $\frac{31}{2}$	b) $\frac{257}{16}$		
	c) $\frac{33}{2}$	d) 16		
4.	If x^{21} + 101 is divided by x + 1, then the remainder is		[1]	
	a) 102	b) -1		
	c) 100	d) 0		
5.	The coefficient of x in the expansion of $(x + 3)^3$ is		[1]	
	a) 1	b) 27		
	c) 9	d) 18		
6.	If $x + \frac{1}{x} = 5$, then $x^2 + \frac{1}{x^2} = 2$		[1]	
	a) 23	b) 27		
	c) 25	d) 10		
7.	The point (7, 0) lies		[1]	
	a) on the positive direction of y-axis	b) on the positive direction of x-axis		
	c) in quadrant IV	d) in quadrant II		
8.	If $(x, y) = (y, x)$, then		[1]	
	a) $x - y = 0$	b) $x + y = 0$		
	c) $\mathbf{x} \div \mathbf{y} = 0$	d) xy = 0		
9.	Which of the points P(0, 3), Q(1, 0), R(0, – 1), S(–5, 0		[1]	
	a) Q, S and T	b) P, R and T		
	c) P and R only	d) Q and S only		
10.	If (-2, 5) is a solution of $2x + my = 11$, then the value of		[1]	

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	a) -2	b) 2		
	c) 3	d) -3		
11.	The graph of $y = 6$ is a line		[1]	
	a) Parallel to x-axis at a distance 6 units from the origin	b) Making an intercept 6 on the x- axis.		
	c) Making an intercept 6 on both the axes.	d) Parallel to y-axis at a distance 6 units from the origin		
12.	Assertion (A): $\sqrt{2}$ is an irrational number.		[1]	
	Reason (R): A number is called irrational if it cannot be written in the form $\frac{p}{q}$, where p and q are integers and q			
	\neq 0.			
	a) Both A and R are true and R is the correct	b) Both A and R are true but R is not the		
	explanation of A.	correct explanation of A.		
	c) A is true but R is false.	d) A is false but R is true.		
13.	Assertion (A): Graph of linear polynomial always me	eets x-axis at 3 points.	[1]	
	Reason (R): Degree of linear polynomial is one.			
	a) Both A and R are true and R is the correct explanation of A.	b) Both A and R are true but R is not the correct explanation of A.		
	c) A is true but R is false.	d) A is false but R is true.		
14.	Find a rational number between $\frac{1}{3}$ and $\frac{1}{2}$		[1]	
15.	Factorise: $216x^3 + \frac{1}{125}$.		[1]	
16.	In which quadrant does the point (-2, -5) lie?		[1]	
Section B				
17.	Simplify: $\frac{\sqrt{13} - \sqrt{11}}{\sqrt{13} + \sqrt{11}} + \frac{\sqrt{13} + \sqrt{11}}{\sqrt{13} - \sqrt{11}}$.		[2]	
18.	Expand $(4a - 2b - 3c)^2$		[2]	
19.	Name the quadrant in which the following points lie:		[2]	
20.	Express x in terms of y for the linear equation $\frac{2}{3}x + 4$		[2]	
Section C				
21.	Find the values of a and b in each of $\frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a - 64$	$\sqrt{3}$	[3]	
22.	Factorise: $x^3 - 6x^2 + 11x - 6$		[3]	