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## CLASS 10 MATH TEST PAPER 9 (MCQ)

## **Class 10 - Mathematics**

Time Al	llowed: 40 minutes	Maximum Mar	ks: 20
1.	The HCF of two numbers 65 and 104 is 13. If LCM	of 65 and 104 is 40x, then the value of x is:	[1]
	a) 8	b) 5	
	c) 13	d) 40	
2.	If two positive integers p and q can be expressed as numbers, then LCM (p, q) is:	p = $18 a^2 b^4$ and q = $20 a^3 b^2$ , where a and b are prime	[1]
	a) $180 a^2 b^2$	b) $_{180 a^{3}b^{4}}$	
	c) $_{2}a^{2}b^{2}$	d) $_{12 a^2 b^2}$	
3.	Which of the followings is an irrational number?		[1]
	a) $(\sqrt{2}-1)^2$	b) $\left(2\sqrt{3} - \frac{1}{\sqrt{3}}\right)^2$	
	c) $\frac{(\sqrt{2}+5\sqrt{2})}{\sqrt{2}}$	d) $\sqrt{2} - (2 + \sqrt{2})$	
4.	The zeros of the polynomial $x^2 - \sqrt{2}x - 12$ are		[1]
	a) 3, 1	b) $\sqrt{2},-\sqrt{2}$	
	c) $3\sqrt{2}, -2\sqrt{2}$	d) 3, -1	
5.	If -2 and 3 are the zeros of the quadratic polynomial	$1x^{2} + (a + 1)x + b$ then	[1]
	a) a = 2, b = 6	b) a = 2, b = -6	
	c) a = -2, b = -6	d) a = -2, b = 6	
6.	The graph of $y = f(x)$ is shown in the figure for som	e polynomial f(x).	[1]
	$x' \longleftrightarrow f(x)$ $y' \longleftrightarrow x$ The number of zeroes of $f(x)$ is		
	a) 4	b) 8	
	c) 6	d) 5	
7.	If $29x + 37y = 103$ and $37x + 29y = 95$ then		[1]

If 29x + 37y = 103 and 37x + 29y = 95 then 7.

> a) x = 3, y = 2 b) x = 2, y = 1

> c) x = 2, y = 3 d) x = 1, y = 2

8.	f the lines represented by equations $3x + 2my = 2$ and $2x + 5y + 1 = 0$ are parallel, then the value of m is: [1]		
	a) $\frac{2}{5}$	b) $\frac{15}{4}$	
	c) $\frac{3}{2}$	d) $-\frac{5}{4}$	
9.	The lines represented by $3x + y - 12 = 0$ and $x - 3y + y - 12 = 0$	-6 = 0 intersects the y – axis at	[1]
	a) (0, – 2) and (0, 12)	b) (0, 2) and (0, – 12)	
	c) (0, – 2) and (0, – 12)	d) (0, 2) and (0, 12)	
10.	$4x^2 - 2x - 3 = 0$ have		[1]
	a) Real roots	b) Real and Distinct roots	
	c) No Real roots	d) Real and Equal roots	
11.	The value of $\lambda$ for which $(x^2 + 4x + \lambda)$ is a perfect so	quare, is	[1]
	a) 1	b) 16	
	c) 4	d) 9	
12.	The angry Arjun carried some arrows for fighting with Bheeshma. With half the arrows, he cut down the arrows thrown by Bheeshma on him and with six other arrows he killed the rath driver of Bheeshma. With one arrow each, he knocked down respectively the rath, flag and bow of Bheeshma. Finally, with one more than four times		
	Arjun had, is	ious on an arow bed. The total number of arrows that	
	a) 100	b) 96	
	c) 80	d) 120	
13.	The common difference of the A.P. $\frac{1}{3}$ , $\frac{1-3b}{3}$ , $\frac{1-6b}{3}$	is	[1]
	a) $-\frac{1}{3}$	b) b	
	c) -3b	d) -b	
14.	In an A.P., if a = 8 and $a_{10}$ = -19, then value of d is:		[1]
	a) $-\frac{11}{9}$	b) 3	
	c) -3	d) $-\frac{27}{10}$	
15.	The common difference of an A.P. whose n <sup>th</sup> term is	given by $a_n = 5n - 1$ , is:	[1]
	a) 5	b) 4	
	c) 1	d) 6	
16.	<b>Assertion (A):</b> The perimeter of $\triangle ABC$ is a rational	number.	[1]
	<b>Reason (R):</b> The sum of the squares of two rational n	numbers is always rational.	
	2 cm		
	B 3 cm		

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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.	
17.	Assertion (A): A quadratic polynomial, sum of whose	e zeroes is 8 and their product is 12 is $x^2 - 20x + 96$	[1]
	<b>Reason (R):</b> If $\alpha$ and $\beta$ be the zeroes of the polynomial $\alpha\beta$	al f(x), then polynomial is given by f(x) = x <sup>2</sup> - $(\alpha + \beta)x$ +	
	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.	
18.	<b>Assertion (A):</b> A pair of linear equations has no solut <b>Reason (R):</b> If the pair of lines are intersecting, then a of equations.	ion (s) if it is represented by intersecting lines graphically. the pair has a unique solution and is called consistent pair	[1]
	<ul><li>a) Both A and R are true and R is the correct</li><li>explanation of A.</li><li>c) A is true but R is false.</li></ul>	<ul><li>b) Both A and R are true but R is not the correct explanation of A.</li><li>d) A is false but R is true.</li></ul>	
19.	<b>Assertion (A):</b> The equation $x^2 + 3x + 1 = (x - 2)^2$ is	a quadratic equation.	[1]
101	<b>Reason (R):</b> Any equation of the form $ax^2 + bx + c =$	0 where $a \neq 0$ , is called a quadratic equation.	
	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.	
20.	<b>Assertion (A):</b> The sum of the first n terms of an AP	is given by $S_n = 3n^2 - 4n$ . Then its nth term $a_n = 6n - 7$	[1]
	<b>Reason (R):</b> nth term of an AP, whose sum to n terms is $S_n$ , is given by $a_n = S_n - S_{n-1}$		
	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.	