NAAHAR PUBLIC SCHOOL (CBSE) SENIOR SECONDARY, VILLUPURAM ACADEMIC YEAR (2022-2023)

BYJU'S MOCK TEST	DATE: 17.12.2022
	MARKS: 480

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CLASS: IX SUB: MATHS & SCIENCE			MARKS: 480 DUR: 3 Hrs
1. Can we write 0 in the fo	rm of n/a?		DUR. 3 III s
	. Cannot be explaine	d d None of	the above
2. The three rational number			
	13/4,14/4,15/4 c.		d.11/4.12/4.13/4
3. In between any two num		,,	
a. Only one ratio		b. Many rati	onal numbers
c. Infinite ration	al numbers	d	. No rational number
4. Every rational number is			
	r b. Natural number	c. Integer	d. Real number
5. $\sqrt{9}$ is a num	iber.		1 137 64 1
			ational d. None of the above
6. Which of the following:			
7. $3\sqrt{6} + 4\sqrt{6}$ is equal to:	3) c. $\sqrt{12}$ d. $\sqrt{100}$)	
	c. $4\sqrt{12}$ d. $7\sqrt{12}$		
8. $\sqrt{6}$ x $\sqrt{27}$ is equal to:	C. 4 VIZ U. / VIZ		
a. $9\sqrt{2}$ b. $3\sqrt{3}$	$c 2\sqrt{2} d 9\sqrt{3}$		
9. Which of the following:			
a. x^6-x^3 b. $x^6.x^3$			
10. Which of the following		rs?	
a. $\sqrt{23}$ b. $\sqrt{225}$	c. 0.3796 d. 7.47	8478	
If $x^g + \frac{1}{x^a}$ is a polynomi	al what could be the	value of a?	
11. $11x^3 + \frac{1}{x^a}$ is a polynomial.	ai, what could be the	value of a:	
A. only 1		positive intege	er
, ,	nteger D. any	•	
12. If $ax 2 + bx + c$ is a mon			
A. Atleast one of a, b an C. Only one among a, b			
13. If ax n is a zero degree p			
<u> </u>	nteger always		
C. a is 0 always	arveger armays	D. a is non zer	
14. Find the factors of $x^3 + 2$	$2x^2 + 2x + 1$		
A. $(x + 1)$ B	(x 2 + x + 1)	C.(x-1)	D. $(x 2 - x + 1)$
15. Given the area of rectan	gle is $A = 25a 2 - 35$	5a + 69. The le	ngth is given as $(5a - 3)$. Find
the width of the rectangl			
	3. 5a – 4 C. 4a –		4
16. Which of the following			
A .101 B		D .999	
17. Factor Theorem is equiv	B. 1 C. 0	neorem when D. 4	remainder is
18. Select the values which			nolynomial can take?
(Options are given by co			
A .1.68686868		C .0,0	D5, -5
19. If $f(x) = (x - a)(x - b)$, the			,
A. True	B. False	1	
20. If ABCD is a parallelogi	ram, then which of th	ne following is	true?
A. AC=BD		B. AB	=AC
	$\angle C = 130^{\circ}$, $\angle B = 50$		⊥ AD
21. Opposite angles of a par	•	-	
A. True	B. False	120 1.50	D: 1.1
22. Three angles of a quadri	lateral measure 37°	, 130° and 53°	. Find the measure of the
fourth angle.	500 000	D 140	
A. 40° E			

23. The sum of external angles of a quadrilateral is equal to the sum of its internal angles A. True B. False

24. If a diagonal of a rectangle is inclined to one side of the rectangle at $35\,^{\circ}$, then the acute % angle between the diagonals is $_$ A. 35° B. 60° C. 70° D. 80°

25. If opposite angles of a parallelogram are supplementary, then the parallelogram is _____ .

	-		_	C. Rhombus		
26.	If the ratio of sides					a
	A. kite	-	lic quadrilater		rallelogram	D. square
27.	In the given figure,	ABCD is	a parallelogr	am. From the g	given options, s	elect the values
	of x and y.	_				
	(m. 200	.√	A . x = 45°	B .y = 105∘	C .y = 30°	D . x = 75°
_/	(x+80)° (y+25	"		,	,	
/		/				
/		/				
	(3x-10)°					
	В					
28.	If BDEF and FDCE	are paral	lelograms, the	en lies equi	idistant to poin	ts B and C.
	^	/Fill in or	ne among A/F/I	E/D)		
		(Fill III OI	ie alliong A/F/I	E/UJ.		
P						
	· ·					
	D					
29.	The sum of angles of					
	A. 180°	B. 360	° C. 48	0° D. 90	0 ∘	
30.	Which of the follow	ving is no	t a quadrilater	al?		
	A. Square	B. Circ	ele C. Rl	nombus D. T	rapezium	
31.	If both pairs of opp	osite sides	s of a quadrila	teral are paralle	el, then it is cal	led:
	A. Triangle B.		_	_		
	D. All of these		C			
32.	The three angles of	a quadrila	ateral are 75°	, 90° and 75°	. The quadrilat	eral can be a
	parallelogram.	1		,	1	
	A. True		B. False			
33	In the above figure,	ACDF A		DE are parallel	ograms Analy	se the given
	figure and choose the			o o mo punumon	• 6	50 0110 81 (011
	A . \angle AFE = x		• '	C .∠BCD =	z D /	CDG = x + y
34	The angles of a qua					2
J7.	are respectively		are in the rati	0 1. 2 . 3 . 4. 11	ne angles of the	quadmaterar
	A. 144°, 108°,	 60° 48°	B 30	6° 72° 108° 1	$\Lambda\Lambda$ \circ	
	C. 30°, 60°, 90					
25	The quadrilateral for					rilatoral in
55.	order, is a	nincu by	joining the im	a points of the	sides of a quad	imateral, in
26	· · · · · · · · · · · · · · · · · · ·	ad rhamb	us are all nare	11 1 2 2 2 2 2 2 2		
<i>3</i> 0.	Square, rectangle an	ia momo	us are an para B. Fa			
27	A. True			iise		
3/.	A trapezium is a pa	_		2-1		
20	A. T			alse	.1 1 1 1 .	C
<i>3</i> 8.	In which of the following	owing wa	ys can four pe	eople hold each	other's hands t	to form a
	quadrilateral?	1.				
	A .All four stand in		1 0.1	. 0.1 1:		
	B. Three stand in o					
	C.Two pairs of peop	•	-			
	D.Two pairs of peo	•		_		behind and side.
39.	A parallelogram wh	ose all si	des are equal	is called a	<u>_</u> ·	
				ctangle \overline{D} . ki		
40.	The angles of a qua					ne quadrilateral.
				B. 60°, 80°,		
	C. 30°, 40°,	, 50∘, 60∘		D. 10°, 20°,	30∘, 40∘	
41.	Any pair of suppler	nentary aı	ngles sum up	to		
	A. 90° B.	180° C.	360° D. 270)。		
42.	Rahul added 5 choc	olates to	his box of 100	chocolates. Hi	is friend Ramu	also added 5
	chocolates to his ov	vn box to	get a total of	105 chocolates.	How many ch	ocolates did
	Ramu have in his b				-	
	A. 90 B. 1					
43.	A straight line is an			rement.		
- ·			360° D. 45°			
44	State whether the g			r false		
	~ ,, inclined the B.	Jii biuio				

An axiom is a statement that is obviously true whereas the statements which are particular to Geometry and accepted without question are known as postulates.

A. True B. False

45. If (a,a/2) is a solution of the equation x + 4y + 5 = 0. find a.

(b) -1

(c) - 5/9

(d) -5/3

46. If a linear equation in x and y reduces to y-b = 0 when x = a, then which of the following is it's solution?

(a) (a,b)

(b) (0,a)

(c) (a,-b)

(d)(b,0)

47. In a balloon bursting competition for couples, a husband bursts two-thirds the number of balloons his wife bursts. in total they burst 10 balloons. How many linear equations can be written using the given information?

(a) 2

(b) 1

(c) 3

(d) 0

48. Which of the following is a solution of the equation 4x-y = 13?

(a) x = 4, y = 3

(b) x = -2, y = -6

(c) x = -1, y = -16(d) x=5, y=7

49. Find the value of k if x = 3 and y = 2 is a solution of the equation x + y = 4k.

(a) 1.5

(b) 2

(c) 1.25

(d) 1.75

50. Which of the following points lies on the graph of the equation 2 y - 7 x = 7

(a)(1,7)

(b)(-1,7)

(c)(1,-7)

(d)(7,1)

(d) y = x + 3

51. The graph of which equation passes through the point (-1,2)? (b) y = 3 x + 1(c) y = x-3

(a) y = 2 x - 1

52. If (5,2) is a solution of the linear equation a x + b y + c = 0, then $5 a + 2 b = \dots$

(b) -c

(c) 0

(d) 7ab

53. The graph of which of the following equation is parallel to x - axis?

(a) x = y

(b) x = -3

(c) y = -1

(d) x = -y

54. The graph of which of the following equation is perpendicular to x - axis?

(a) x = y

(b) x = 2

(c) y = 3

(d) x = -y

55. In $\triangle NV Y$, if NV = V Y and $V Y \neq Y N$, then which of the following is true?

A. $\angle NV Y = \angle V Y N$

B. $\angle NV Y = \angle Y NV$

C. $\angle NV Y + 2 \angle V Y N = 180^{\circ}$

D. $\angle V Y N + 2 \angle NV Y = 180^{\circ}$

56. Which of the following is sufficient for two triangles denoted by $\Delta 1$ and $\Delta 2$ to be congruent?

A. Any two sides of $\Delta 1$ should be equal to any two sides of $\Delta 2$

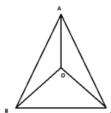
B. All angles of $\Delta 1$ should be equal to all angles of $\Delta 2$

C.Any two sides of $\Delta 1$ and one angle should be equal to any two sides and one angle of $\Delta 2$

D.Any two sides of $\Delta 1$ and the included angle should be equal to any two sides and the included angle of $\Delta 2$

57. If all the sides of \triangle CAT are equal to corresponding sides of \triangle RAT, then \triangle RAT \cong \triangle CAT. A. True B. False

58. In the given figure, \triangle ABC is equilateral with point O as its circumcentre. Here, area of $\Delta BOC = area of \Delta ABC$

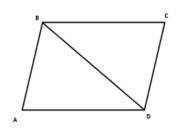


A. True B. False

59. In the given parallelogram ABCD, \triangle ABD $\cong \triangle$ BCD.

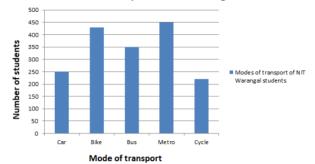
A. True

B. False



60. Modes of transport of 1700 students of NIT Warangal is shown in the graph below. Which of the following options are correct?

Modes of transport of NIT Warangal students



- A .350 students prefer to travel by bus.
- B .Cycle is the least preferred mode of transport.
- C .Bike is more preferred as compared to metro.
- D .Car is the most common mode of transport.

SUBJECT: PHYSICS

61. A car of mass 1, 000 kg is moving at a speed of 20 ms⁻¹. It is brought to rest at a distance of 50 m. Calculate the net force acting on the car.

A. 4, 000 N B. 3, 000 N C. 2, 000 N D. 1, 000 N

62. If A and B are two objects of masses 6 kg and 3 kg respectively, then the inertia of object A is more than that of object B.

A. True B. False

- 63. When a bullet is fired from a pistol, in which direction the pistol moves (ignore the force exerted by hand)?
 - A. Opposite to the bullet's direction.
 - B. Perpendicular to the bullet's direction.
 - C. It will be in the same position as before.
 - D. Along the bullet's direction
- 64. When a football player kicks a ball, he experiences a force on his leg which is equal to the force he exerted on the ball.

A. True B. False

65

Calculate the force required to accelerate a car from rest to a velocity of $30 \ ms^{-1}$ in $10 \ seconds$. The mass of the car is $1500 \ kg$.

A. 4000 N B. 3000 N C. 4500 N D. 3500 N

66. A water tanker filled up to two-thirds of its height is moving with a uniform speed. On sudden application of brake, the water in the tank will _____.

A. move backward B. move forward C. rise up D. remain unaffected

67. Jaikishan and Arun are pushing each other as shown in the given figure. Jaikishan's push is weaker than that of Arun. As a result, they move in the direction shown in the figure



A.Tension force

B. Unbalanced force

C. Gravitational force

D. Balanced force

68. A cannon ball of mass 2 kg is fired at a target 500 m away. The 400 kg cannon recoils with a velocity of 2 ms -1. Assuming cannon ball moves with constant velocity, when will it hit the target?

A. 1.25 s B. 2 s C. 1.5 s D. 0.2 s

69. Which of the following has SI unit as kg m s⁻²?

A. Force B. Momentum C. Acceleration D. Inertia

70. An object moves with an acceleration of 3 m s -2 when a force of 30 N is applied. The mass of the body is:

A. 30 kg B. 20 kg C. 40 kg D. 10 kg

71. What is the magnitude of force needed to produce an acceleration of 4 ms –2 in a ball of 6 kg?

A. 20 N B. 26 N C. 30 N D. 24 N

72. From a rifle of mass 4 kg, a bullet of mass 50 g is fired with a velocity of 35 ms -1 with respect to the ground. Calculate the recoil velocity of the rifle.

73. When a carpet is beaten with a stick, dust will come out. Why does this happen?

b) second law of motion

d) Newton's law cannot explain this behavior

A. $1 \ ms^{-1}$

 ${\bf B.}\quad 0.4375\ ms^{-1}$

 ${f C}.~~2.5~ms^{-1}$

 $\mathbf{D.}\quad 0\;ms^{-1}$

a) First law of motion

c) Third law of motion

74. While an athlete is running at 300 N. What is the mass of the	a constant acceleration of 4.5 ms -2, he exerts a force of
	C. 65 kg D. 66.67 kg
	eleration of 3 ms –2 when a force of 30 N is applied. The
mass of the body iskg.	
A. 30 B. 10 C. 15	D. 60
76. The SI unit of pressure and the	rust are respectively:
A. Pa and N B. N an	$d Nm^{-1} C. Nm^{-1}$ and $N D. N$ and Pa
77. Two point objects with differe	ent masses are kept at a distance R apart from each other. If
the gravitational force between	n them is F, then:
A. $F \propto R^2$	
A. $F \propto R^2$ B. $F \propto R^4$	
1	
C. $F \propto rac{1}{R^2}$ D. $F \propto rac{1}{R^4}$	
D. $F \propto \frac{1}{R^4}$	
78. If a body of mass m is taken to	o the bottom of a deep mine, then its
A. mass increases	B. mass decreases
C. weight increases	D. weight decreases
_	hat the buoyant force exerted on a body immersed in a fluid
is equal to the volume of the f	•
A. True B. False	
	es does the gravitational force act as the centripetal force?
A. A ship floating on	
C .A leaf falling down	
e ./ i ieur iuning uown	D. Latar revolving round the ban
SUBJECT: BIOLOGY	
	n system, which kingdom contains organisms whose
structure is composed of prol	•
A. Kingdom Fungi	B. Kingdom Plantae
	_
C. Kingdom Monera	D. Kingdom Animalia
82. Pteridophytes do not bear flov	vers and do not produce seeds.
A. True B. Fal	se
83. Gymnosperms have naked see	eds.
A. True B. False	
84. Which is the basic unit of Line	naeus's system of classification?
A.Species B. Genus	
-	oms contain organisms that do not have a defined nucleus?
A. Protista B. Mon	_
86. Cell wall of fungi is made up	
A. Chitin B. Cellulo	
	ms both produce seeds in different ways. But they are both
known are as	
A. phanerogams B.	cryptogams C. pteridophytes D. bryophytes

88. Sponges have a true body cavity.
A. True B. False
89. Mr Sharma had a little non painful lump in his throat. Later it became painful and
cancerous. Which among the following statement is incorrect about cancer? A. Cancer is a chronic disease. B. Cancer is an acute disease.
A. Cancer is a chronic disease. B. Cancer is an acute disease.
C. It continues for long or lifetime. D. It continues to weaken the body
90. Select the incorrect statement about the working of vaccine.
A. The immune system remembers the microbe encountered the first time
B. The immune system acts with more vigour, everytime it encounters a
specific microbe
C. Weakened sample of the pathogen is inserted in the body
D. There are vaccines against tetanus and cancer.
91. Which tissue is responsible for the increase in the girth of the stem?
A. Apical meristem B. Cambium C. Intercalary meristem D. Xylem 92. Which of the following is composed of nervous tissue?
A. Brain B. Large instestine C. Stomach D. Small intestine
93. 'X' is a phylum which has organisms with jointed appendages, and asegmented body.'Y' is
a phylum which has organisms with a notochord present at somestages of their life.
Identify 'X' and 'Y'.
A. X- Nematoda Y- Protochordata B. X- Molluscs Y- Protochordata
C. X- Arthropoda Y- Nematoda D. X- Arthropoda Y- Protochordata
94. Which of the following pair forms the vascular bundle?
A. Parenchyma and sclerenchyma B. Xylem and parenchyma
C. Xylem and phloem D. Phloem and collenchyma
95. Group of one or more type of similar cells with a similar origin and specialised to
perform specific function(s) are called A. organelles B. tissues C. organs D. organ system
96. Rangappa has a piece of farmland next to the river Krishna, whereas his brother
Sangappa has farmland away from the flow of the river. What method of irrigation
should Rangappa adopt (A) and what method of irrigation should Sangappa adopt (B)
A. A:River lift irrigation; B:Well irrigation B. A:Well irrigation; B:Canal irrigation
C. A:Tube well irrigation; B:Drip irrigation
D. A:Canal irrigation; B: Drip irrigation.
97. Identify the type of simple permanent tissue.
(i) The cells of this tissue are dead.(ii) The cell walls are thickened due to lignin.
A. Parenchyma B. Collenchyma
C. Aerenchyma D. Sclerenchyma
98. Based on which of the following criteria, plant tissues are categorised into meristematic
and permanent tissues?
A. Ability to undergo photosynthesis B. Ability to divide actively
C. Ability to move D. Complexity to perform a function
99. Person X is suffering from deficiency of carbohydrates. Which among the following do
you suggest him to eat?
A. Wheat B. Black gram C. Pigeon peas D. Ground nuts
100. During the crop cultivation, Rahul observed that plant 'X' was growing along
with his crops. He sprayed a chemical 'Y' to remove this plant. Identify X and Y.

A. X is a weed; Y is a weedicide

B. X is a cash crop; Y is an insecticide

	C.	X is a fodder crop; Y is a herbicide D	2. X is a weed; Y is a fertiliser
DX/	TITIO	CHEMICEDY IV	
ВҰ	101. (a) (c)	CHEMISTRY IX In all the three states of water, (i.e. ice, liqu) is very different) sometimes same and sometimes different Which of the following statements is incorr (a) The force of attraction between the g (b) Plasma consists of super energetic a	ect about the state of matter? gas particles is very less.
	103.	(c) The plasma glows with a special col	our depending on the nature of the gas. by heating gas of extremely low density. gas? er
	104.	A form of matter that has no fixed shape bu	t has a fixed volume. An example of this
	for	rm of matter is —	
		(a) carbon dioxide (b) ice	
	105	(c) water vapor (d) kerose When heat is constantly supplied by a burne	
		e water during vaporisation:	er to bonning water, then the temperature or
	tiic	(a) Rises very slowly	(b) Rises rapidly until steam is produced
	106	(c) First rises and then becomes constant	
	106.	The boiling point of water at sea level is — (a) 0° C (b) 273 V	
	107.	(a) 0° C (b) 273 K (c) The process in which solid is directly converged.	,
	107.	=) solidification
		` ' 1	l) sublimation
	108.	The solid which undergoes sublimation is –	
		(a) ice cube (b) naphtl	
	100	(c) sodium chloride (d) potas	
	109.	Which of the following phenomena would it (a) Diffusion, evaporation, compression	<u> </u>
		(b) Evaporation, compression of gases,	
		(c) Evaporation, diffusion, expansion of	•
		(d) Evaporation, solubility, diffusion, co	
	110	What is two shout home concess minture?	
	110.	What is true about homogeneous mixture? (a) Homogeneous mixture is the mixture.	e of two or more than two components
		(b) In homogeneous mixture the compo	÷
		throughout the mixture	1 1
		(c) both (a) and (b) are true	
	111	(d) none of the above	110
	111.	Which of the following properties does not (a) It is composed of two or more elements	<u> </u>
		(b) It is a pure substance.	into
		(c) It cannot be separated into constitue	nts by physical means
		(d) It is mixed in any proportion by mas	SS
	112.	In the tincture of iodine, find the solute and	l solvent?
		(a) alcohol is the solute and iodine is the	
		(b) iodine is the solute and alcohol is the	e solvent
		(c) any component can be considered as	s solute or solvent
		(d) tincture of iodine is not a solution	
	113.	Which of the following is not a homogeneo	us mixture?
	110.	(a) Air (b) Tincture of iodine	(c) Sugar solution (d) milk
	114.	What is the statement?	
		"10 percent glucose in water by	
		(a) 10 gram of glucose dissolved in 100	gram of water.

115.	(b) 10 gram of glucose dissolve (c) 20 gram of glucose dissolve (d) 20 gram of glucose dissolve Sol and gel are examples of————————————————————————————————————	ed in 200 granded in 90 grammed and gel is liqued and gel is solider	n of water. of water. uid-solid colloid -liquid colloid		
116.	Solid solution in which the solute	is gas ———	_		
	e e e e e e e e e e e e e e e e e e e		(b) Camphor in nitrogen gas(d) All of the above		
117.	An example of liquid metal and lic (a) Gallium, mercury (c) Mercury, bromine (b) Mercury, c	hlorine		
118.	The atomic symbol of silver is —				
And con (a) (c)	(a) Si (b) S (A box contains some identical red other box contains identical blue combinations AB, AB ₂ , A ₂ B and A ₂ B ₃ Law of Definite proportion Law of conservation of mass What is the value of Avogadro's not a box contains a contain the contained by the	colour balls la blored balls, la which is app (b) Lav (d) No	abelled as A each weighbelled as B, each weighlicable? w of multiple proportion	thing 5 g. In the	
	(a) 6.02×10^{-23} (b) 6.02		(c) 6.02×10^{-22}	(d) 6.02×10^{22}	