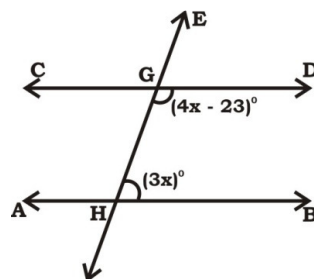


**SRI GURUDATTA COACHING CENTRE****MATHEMATICS**

- Sampoornesh used his calculator to multiply a number by 2. But by mistake he multiplied by 20. To obtain correct result he must
  - Divide by 20
  - Divide by 40
  - multiply by 10
  - multiply by 0.1
- In Rhombus MATH,  $MA = y + 8$  and  $AT = 4y - 7$  then MA is
  - 5 units
  - 8 units
  - 10 units
  - 13 units
- The opposite sides of a parallelogram are represented by  $16x + 20$  and  $20x - 16$ . Then  $4x - 1 = \text{---}$ 
  - 9
  - 37
  - 35
  - 40
- In the word ARITHMETIC, what percent of the letters are I is
  - 40%
  - 20%
  - 60%
  - 50%
- $(6 - 1) + (0 - 2) = \text{---}$ .
  - 4
  - 2
  - 2
  - 3
- A person buys 10 cows, then sells 8 cows, then buys 200 cows and after wards sells 150 cows. How many cows has he now with him.
  - 250
  - 50
  - 52
  - 58
- 20% of 16 equals to
  - 8
  - 4
  - 3.2
  - None of these
- If  $\frac{20}{3} = \frac{120}{y}$  then y equals to
  - 9
  - 12
  - 15
  - 18
- $2016 - (2016 - (2016 - (2016 - 1))) =$ 
  - 2
  - 1
  - 2016
  - 2015
- If the cost price of 10 articles is equal to the selling price of 8 articles, then gain % is
  - 25%
  - 10%
  - 50%
  - 15%
- The value of 'n', when  $5^{-5} \times 5^{2n+1} = 5^6$  is
  - 3
  - 5
  - 6
  - 5
- If  $a : b = \frac{7}{4} : \frac{8}{3}$  and  $b : c = 4 : \frac{13}{4}$  find  $a : b : c$ 
  - 21 : 16 : 13
  - 21 : 32 : 26
  - 21 : 32 : 13
  - 21 : 16 : 32
- A and B together can do a piece of work in 12 days while B alone can finish it in 30 days. The number of days A alone can finish the work is
  - 20 days
  - 15 days
  - 18 days
  - 25 days
- Mean of first prime numbers is
  - 6.4
  - 5
  - 5.6
  - 6
- $AB \parallel CD$ , then the value of 'x' is



- 60°
- 29°
- 50°
- 120°

Space for rough work

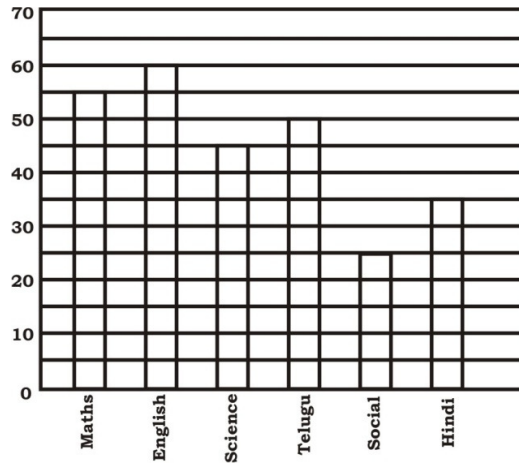
16. A train 180 m long crosses a standing man in 12 seconds the speed of the train in km/hr is  
(1) 18 km/hr                      (2) 5 km/hr                      (3) 15 km/hr                      (4) 54 km/hr

17. Simplify  $11 - [(-8) - \{10 - (9 - \overline{7 - 4})\}]$

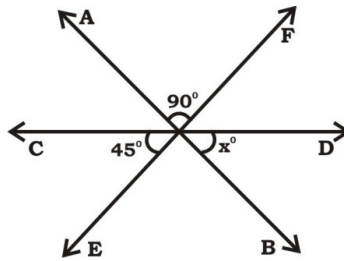


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34. Bar graph shows the marks varun obtained in his annual exams. How amny more marks did he get in his best subject than his worst subject least performance.



- (1) 30                                      (2) 35                                      (3) 40                                      (4) 15
35. Mean proportional of 3 and 27 is  
 (1) 9                                      (2) 24                                      (3) 15                                      (4) 12
36. The average of 5,2,6,y and 3 is 5 then the value of y is  
 (1) 9                                      (2) 10                                      (3) 8                                      (4) 7
37. In an examination 94% of the candidates passed and 33 failed. Total candidates appeared is  
 (1) 67                                      (2) 550                                      (3) 127                                      (4) 517
38. A father is 7 times as old as his son. Two years ago, the father was 13 times as old as his son present age of father is  
 (1) 24 yrs                                      (2) 28 yrs                                      (3) 27 yrs                                      (4) 30 yrs
39. Lengths of two sides of a triangle are 8 cm and 6 cm then the length of third side can be  
 (1) 12 cm                                      (2) 14 cm                                      (3) 2 cm                                      (4) 15 cm
40. Find the angle  $x^\circ$  from the given figure

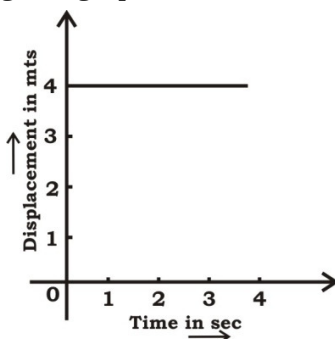


- (1)  $45^\circ$                                       (2)  $90^\circ$                                       (3)  $135^\circ$                                       (4)  $30^\circ$

**PHYSICS**

41. The normal body temperature of a healthy person is \_\_\_\_\_  
 (1)  $98.6^\circ\text{C}$                                       (2)  $98.6^\circ\text{F}$                                       (3)  $98.6\text{ K}$                                       (4) None of these
42. Observe the following motions of bodies and pick the odd one out.  
 (1) Girl swinging on a cradle                                      (2) Needle in a sewing machine  
 (3) Motion of vibrating guitar string                                      (4) Car moving with a uniform speed

43. What do you understand from the given graph about motion of a body.



- (1) Body moving with uniform velocity                      (2) Body moving with uniform acceleration  
 (3) Body moving with uniform retardation                (4) Body is at rest
44. Device used for measuring wind speed  
 (1) Speedometer                      (2) Anemometer                      (3) Odometer                      (4) Hydrometer
45. A cold steel spoon is dipped in a cup of hot milk. It transfers heat to its other end by process of  
 (1) Conduction                      (2) Radiation                      (3) Convection                      (4) Both 1 and 3
46. When a body is thrown up, the force of gravity will be  
 (1) In horizontal direction                      (2) In downward direction  
 (3) Zero                      (4) In upward direction.
47. Speed of light in vacuum is  
 (1)  $3 \times 10^5$  km/sec                      (2)  $3 \times 10^8$  km/sec                      (3)  $3 \times 10^{11}$  m/sec                      (4) None of these
48. If the electric current passes through a metal rod. It behaves like a  
 (1) Magnet                      (2) Fuse                      (3) Resistor                      (4) Cell

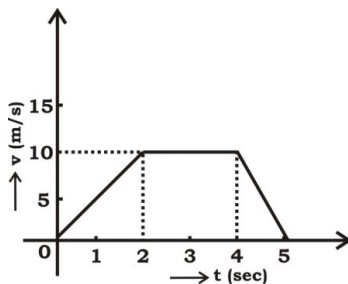
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49. Which of the following is application of electromagnet  
 (1) Electric kettle (2) Telegraph (3) Heater (4) Switch
50. 1 light year is equal to  
 (1)  $3.9 \times 10^{51}$  cm (2)  $9.3 \times 10^{15}$  cm (3)  $6.33 \times 10^{14}$  m (4)  $1.496 \times 10^{11}$  m
51. Choose the scalar quantity among the following  
 (1) Mass (2) weight (3) Force (4) Velocity
52. A body thrown vertically upwards travels with  
 (1) Acceleration (2) Uniform velocity (3) Uniform speed (4) Retardation.
53. Study the table given below and choose the correct option.

Time in sec	0	1	2	3	4	5	6	7	8	9	10
Velocity in m/s	2	4	8	9	10	10	10	10	12	4	2

- (1) Velocity is uniform between 0 sec and 3 sec  
 (2) Velocity is uniform between 3 sec and 6 sec  
 (3) Velocity is uniform between 4 sec and 7 sec  
 (4) Velocity is uniform between 2 sec and 10 sec
54. A body covers 10m in 1<sup>st</sup> second, 20m in 2<sup>nd</sup> second and 30m in 3<sup>rd</sup>second. What is the average speed of the body.  
 (1) 30 m/s (2) 25 m/s (3) 20 m/s (4) 60 m/s
55. A body is dropped from the top of a building gains a velocity of 58.8 m/s once it comes in contact with ground. Calculate the time of free fall ( $g = 9.8 \text{ m/s}^2$ )  
 (1) 6 sec (2) 4 sec (3) 5 sec (4) 2 sec
56. The volume of a woodenplank of 100g is  $100 \text{ cm}^3$ , its density in SI system is  
 (1)  $10 \text{ kg/m}^3$  (2)  $100 \text{ kg / m}^3$  (3)  $1 \text{ kg/m}^3$  (4)  $1000 \text{ kg / m}^3$

57. The rectilinear motion of a body is as shown. The acceleration in 1sec and 3 sec are



- (1)  $2 \text{ m/s}^2$ ,  $1 \text{ m/s}^2$       (2)  $5 \text{ m/s}^2$ ,  $0$       (3)  $1 \text{ m/s}^2$ ,  $2 \text{ m/s}^2$       (4)  $0$ ,  $5 \text{ m/s}^2$
58. Which of the following is the unit of intensity of sound.  
 (1) cm      (2) hertz      (3) Decibel      (4) sec
59. Choose the correct order of velocity of sound in gases, liquids & solids  
 (1)  $332 \text{ m/s}$ ,  $5100 \text{ m/s}$ ,  $1500 \text{ m/s}$       (2)  $332 \text{ m/s}$ ,  $1500 \text{ m/s}$ ,  $5100 \text{ m/s}$   
 (3)  $5100 \text{ m/s}$ ,  $332 \text{ m/s}$ ,  $1500 \text{ m/s}$       (4)  $5100 \text{ m/s}$ ,  $1500 \text{ m/s}$ ,  $332 \text{ m/s}$
60. Boiling point of water increases with  
 (1) Increase of pressure      (2) Decrease of pressure  
 (3) May increase or decrease without change      (4) None of these
61. The temperature of a patient is  $104^\circ\text{F}$ . Then the same body temperature is equal to \_\_\_\_\_  $^\circ\text{C}$ .  
 (1) 38      (2) 39      (3) 34      (4) 40
62. The following are symbols of electric circuit choose their names in the order.  
 (i)       (ii)       (iii)       (iv)   
 (1) Cell, Battery, Resistor, closed switch      (2) Battery, Resistor, cell, closed switch  
 (3) Resistor, Battery, closed switch, cell      (4) Resistor, cell, closed switch, Battery

Space for rough work



63. Fuse wire is an alloy of  
(1) 60% tin & 40% of iron (2) 40% of tin & 60% of iron  
(3) 60% of tin & 40% of lead (4) 60% of lead & 40% of tin
64. S.I. units of momentum  
(1) g cm/sec (2) kg m/sec<sup>2</sup> (3) kg m/sec (4) g cm/sec<sup>2</sup>
65. When a horse pulls a cart, the force that helps the cart to move forward is the force exerted by  
(1) The horse on the ground (2) The ground on the cart  
(3) The ground on the horse (4) The horse on the ground

## CHEMISTRY

66. Which of the following contains Malic acid?  
(1) Lemon (2) Spinach (3) Vinegar (4) Apple
67. Which of the following turns red litmus blue?  
(1) Lemon (2) Sodium hydroxide (3) Water (4) Salt solution
68. Which of the following statements is/are correct?  
(i) Acid turns red litmus blue (ii) Base turns blue litmus red  
(iii) Acid turns blue litmus red (iv) Base turns red litmus blue  
(1) (i) & (ii) only (2) (ii) & (iii) only (3) (iii) & (iv) only (4) (i) & (iv) only
69. The chemical name of lime water is \_\_\_\_\_  
(1) Calcium hydroxide (2) Magnesium oxide  
(3) Calcium oxide (4) Aluminium chloride
70. Which of the following is not a mineral acid?  
(1) Hydrochloric acid (2) Oxalic acid (3) Nitric acid (4) Sulphuric acid

71. Ammonia is present in windows cleaner. It turns red litmus blue. What is its nature?  
(1) Neutral (2) Acidic (3) Basic (4) None of these.
72. Which of the following statements is/are correct?  
(i) In the process of neutralization, acid and base react each other  
(ii) Salts need not always be neutral. They can also be acidic or basic.  
(1) (i) only (2) (ii) only (3) both (i) & (ii) (4) None of these
73. The substances those are soapy to touch and turn red litmus blue are \_\_\_\_\_ in nature.  
(1) Acidic (2) Basic (3) Neutral (4) Amphoteric
74. Which of the following acids is present in ant's sting?  
(1) Lactic acid (2) Formic acid (3) Palmitic acid (4) Ascorbic acid
75. Which of the following acids does not occur in nature?  
(1) Tannic acid (2) Acetic acid (3) Sulphuric acid (4) Lactic acid
76. The colour of anhydrous  $\text{CuSO}_4$  is \_\_\_\_\_  
(1) White (2) Blue (3) Red (4) Yellow
77. Which of the following is not a base containing substance?  
(1) soap (2) Tamarind (3) Lime water (4) None of these
78. Iron + \_\_\_\_\_ + \_\_\_\_\_  $\longrightarrow$  Rust  
(1)  $\text{H}_2$  &  $\text{N}_2$  (2)  $\text{H}_2$  &  $\text{H}_2\text{O}$  (3)  $\text{O}_2$  &  $\text{H}_2\text{O}$  (4)  $\text{N}_2$  &  $\text{H}_2\text{O}$
79. A slice of an apple acquires brown colour if it's kept away for some time. What the change involved in that process?  
(1) Physical change (2) Chemical change (3) Both (1) & (2) (4) None of these
80. Which of the following is/are chemical changes?  
(i) Boiling of an egg (ii) Change of milk to curd  
(iii) Cutting a piece of wood  
(1) (i) (2) (ii) (3) (i) & (ii) (4) (i), (ii) & (iii)
81. Addition of an iron nail to copper sulphate solution results change in colour of the solution from \_\_\_\_\_ to \_\_\_\_\_  
(1) Blue; Red (2) Red; Blue (3) Blue; Green (4) Green; Blue
82. Total number of atoms present in  $(\text{NH}_4)_3\text{PO}_4$  are \_\_\_\_\_  
(1) 4 (2) 13 (3) 18 (4) 20
83. The gas we use in the kitchen is called liquefied petroleum gas (LPG). In cylinder it exist as a liquid. When it comes out from the cylinder it becomes a gas (change - A) then it burns (change - B). The following statements pertain to these changes. Choose the correct one.  
(1) Process - A is a chemical change (2) Process - B is a chemical change  
(3) Both process - A & B are chemical changes  
(4) None of these processes is a chemical change.
84. Which of the following gases is used to kill harmful disease causing germs/organisms present in water?  
(1)  $\text{N}_2$  gas (2)  $\text{Cl}_2$  gas (3)  $\text{NO}_2$  gas (4)  $\text{CO}_2$  gas.
85. Which of the following process(es) is/are carried out in waste water treatment process?  
(1) Physical process (2) Chemical process (3) Biological process (4) All of these.
86. Animal fibre is a \_\_\_\_\_  
(1) Carbohydrate (2) Protein (3) Both (1) & (2) (4) None of these
87. Cleaning of fleece with a stream of water is called \_\_\_\_\_  
(1) Sorting (2) Shearing (3) Scouring (4) Reeling

88. The largest gaseous component in air is \_\_\_\_\_  
(1) Oxygen                      (2) Chlorine                      (3) Carbon dioxide                      (4) Nitrogen
89. How many atoms are present in one molecule of water?  
(1) 1                      (2) 2                      (3) 3                      (4) 4
90. Which of the following elements are present in common salt?  
(1) Sodium & sulphur    (2) Calcium & Chlorine    (3) Sodium & chlorine    (4) Calcium & sulphur

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Space for rough work