PHYSICS + CHEMISTRY + BIOLOGY +MATHS

PHYSICS

1. Number of divisions in a half °C thermometer is

    A) 100   B) 180   C) 200   D) 273

2. Melting point of ice is represented in fahrenheit scale as

    A) 212°F   B) 32°F   C) –273°F   D) 0°F

3. The reading of fahrenheit and kelvin scale coinsides at

    A) –40°   B) 574.6°   C) 273.15°   D) never coincide

4. Find the value of 10°C in °F

    A) 41   B) 283   C) 48   D) 50

5. 1 Doctor's calorie is equal to

    A) 4186J   B) 4.186J   C) 1000J   D) 4186 calorie

6. Specific heat of steam

    A) $0.47Jg^{-1}°C^{-1}$ B) $0.47Cal\ Kg^{-1}°C^{-1}$ C) $0.47\ Cal\ g^{-1}°K^{-1}$ D) $0.47Cal\ g^{-1}°C^{-1}$

7. Choose the correct statement

    A) Among metals silver is the best conductor next in order are aluminium and copper

    B) Graphite is a bad conductor because it is a non metal

    C) All liquid except mercury are good conductors

    D) Organic substances are bad conductors

8. In wave motion particle of the medium vibrate in the direction of wave propogation. Then the wave is

    A) Transverse wave   B) longitudinal wave   C) electromagnetic wave D) Rarefaction wave

9. The unit of that quantity on which pitch of the sound depends is

    A) Hertz   B) meter   C) meter/second   D) second

10. Wave velocity is equal to

    A) frequency × waelength   B) frequency × time -period

    C) wave length × time period   D) wave length × amplitude

11. SI unit of intensity of sound is

    A) watt $s^{-1}m^{-2}$ B) watt m^{2} C) joul $s^{-1}\ m^{-2}$ D) Both B and C

12. For echo to take place for least distance, the distance between source of sound and reflecting surface should be

    A) 17cm   B) 34cm   C) 17m   D) 34m

13. Speed of sound in air at any temperature, t can be repressented as

A) [330+0.41×t]m/s   B) [330-0.61×t]m/s   C) [330–0.41×t]m/s   D) [330+0.61×t]m/s

14. Sound travels fastest in following

A) Air   B) Water   C) Iron   D) Vaccum

15. An electric currnet produces

A) Magnetic effect   B) chemical effect   C) heating effect   D) all of the above

CHEMISTRY

16. Which of the following is a monobasic acid?

A) H_3PO_3 B) H_2SO_4 C) HCN   D) $(COOH)_2$

17. Choose the correct statement

A) Carbonic acid is a tribasic acid   B) Phosphoric acid is a tribasic acid

C) Hydrochloric acid is a weak acid   D) Nitrogen acid is a strong inorganic acid

18. Choose the correct classification

	Column I		Column II		Column III
I	Monobasic	a	H_3PO_4	i	Dissociate to give two H^+ ions per molecules of the acid
II	Disbasic acid	b	HCl	ii	Dissociate to give three H^+ ions per molecule of the acid
III	Tribasic acid	c	H_2SO_4	iii	Dissociate to give one H^+ ion per molecule of the acid

A) I →a → iii, II→b→i, III→c →ii   B) I→c→iii, II→b→i, III→a→ii

C) I→b→iii, II→a→i, III→c→ii   D) I→b→iii, II→c→i,III→a→ii

19. A teacher performed the following experiment in the class.

He took a small amount of lemon juice, apple juice, vinegar in three separate test tubes. He poured a drop of blue litmus in each of the test tubes. What will you notice about blue litmus?

A) Blue litmus turns red only in lemon juice   B) Blue litmus turns red only in apple juice

C) Blue litmus turns red only in vinegar   D) Blue litmus turns red in all the three juices

20. The process due to which an acid completely reacts with base to form salt and water as the only products is called ....

A) Crystalisation   B) Neutralisation   C) Distillation   D) Condensation

21. Which of the following base is used in the preparation of bleaching powder?

A) Calcium hydroxide   B) Calcium oxide   C) Aluminium hydroxide   D) Magnesium hydroxide

22. Acid +Base $\rightarrow$ Salt +Water

$A + 2NaOH \rightarrow Na_2SO_4 + B$

A) A $\rightarrow$ NaCl, B $\rightarrow H_2O$ B) A $\rightarrow H_2SO_4$, B $\rightarrow 2H_2O$

C) A $\rightarrow$ HCl, B $\rightarrow H_2O$ D) A $\rightarrow 2H_2SO_4$, B $\rightarrow H_2O$

23. The salts which contain fixed number of water molecules are called

A) basic salt   B) anhydrated salt   C) hydrated salt   D) normal salt

24. The chemical formula of sodium carbonate is

A) Na_2SO_4 B) Na_2CO_3

C) $Na_2CO_3.7H_2O$ D) $NaHCO_3.10H_2O$

25. The common name for calcium carbonate is

A) chalk   B) lime stone   C) marble   D) all the above

26. Which of the following is not a strong acid?

A) H_2SO_4 B) CH_3COOH C) HNO_3 D) HCl

27. $NaHCO_3$ represent the formula of which one of the following?

A) Sodium carbonate   B) Baking soda   C) Sodium acetate   D) Washing soda

28. An aqueous solution turns red litmus solution blue. Excess addition of which of the following solution would reverse the change?

A) baking power   B) lime   C) ammonium hydroxide solution

D) hydrochloric acid

29. Which of the following is acidic in nature?

A) Lime juice   B) Human blood   C) Lime water   D) Antacid

30. Which of the following statements is true for acids?

A) Bitter and change red litmus to blue   B) Sour and change red litmus to blue

C) Sour and change blue litmus to red   D) Bitter and change blue litmus to red

BIOLOGY

31. Narrow thin ribbon shape leaves and less developed roots are the characters of

A) Xerophytes   B) Hydrophytes   C) Mesophytes   D) Desert plants

32. Deep long wintersleep to escape from harsh cold condition is called

A) Aestivation   B) Migration   C) Summersleep   D) Hibernation

33. Which of the following is not an adaptation of desert animals

A) Urine is very concentrated

B) Nostrils have long hairs to prevent the entry of sand and dust

C) No sweat glands

D) Roots are deeper to absorb water

34. Camouflage means

    A) Minimum metabolic activities   B) Thermal regulation

    C) Match the colour of the background   D) Store fat in their body

35. The place where an organism found is called

    A) Environment   B) Habitat   C) Biotic factors   D) Abiotic factor

36. At high altitude the RBC in human blood

    A) Increases in size   B) Increases in number   C) Decreases in number   D) Decreases in size

37. Which trait is not helpful to a fish in adaptation

    A) Streamlined body   B) Large pupils of the eyes

    C) Gills   D) Beautiful colour of the body

38. The delicate flexible and thin stem is the characteristics feature of

    A) Mesophyte   B) Hydrophytes   C) Halophytes   D) Xerophytes

39. Respiration is an example for

    A) Catabolism   B) Anabolism   C) Both A and B   D) Metabolism

40. Exchange of gases between tissue cells and extracellular environment is called

    A) External respiration   B) Internal respiration   C) Cellular respiration   D) Breathing

41. The end product of Aerobic respiration is

    A) CO_2 and H_2O B) Alcohol only   C) CO_2 only   D) CO_2 and lactic acid

42. In cutaneous respiration organ involved in is

    A) Skin   B) Lungs   C) Arms   D) Buccal cavity

43. During inhalation ribs

    A) Move backward   B) Move forward and upward

    C) Move downward   D) Move upward and backward

44. The percentage of oxygen in inhaled air is

    A) 21%   B) 16.4%   C) 0.04%   D) 4.4%

45. Which is the correct sequence of the air passage in man?

    A) Nasal cavity → Larynx → Pharynx → Trachea → Bronchi → Bronchioles → Alveoli

    B) Nasal cavity → Pharynx → Trachea → Larynx → Bronchi → Bronchioles → Alveoli

    C) Nasal cavity → Larynx → Bronchi → Pharynx → Trachea → Bronchioles → Alveoli

    D) Nasal cavity → Pharynx → Larynx → Trachea → Bronchi → Bronchioles → Alveoli

MATHS

46. The product of two rational numbers its $\dfrac{-8}{9}$. If one of the numbers its $\dfrac{-4}{15}$. Find the other

   A) $\dfrac{10}{3}$ B) $\dfrac{2}{6}$ C) $\dfrac{-10}{3}$ D) $\dfrac{-2}{6}$

47. By what rational number should $\dfrac{-8}{39}$ be multiplied to obtain 26?

   A) $\dfrac{507}{4}$ B) $\dfrac{-507}{4}$ C) $\dfrac{-407}{4}$ D) $\dfrac{307}{4}$

48. If $\dfrac{x}{6} = \dfrac{7}{-3}$, then the value of x is

   A) –14   B) 14   C) 21   D) 20

49. How many rational numbers exist between any two distinct rational numbers?

   A) 2   B) 3   C) 11   D) infinite numbers

50. What should be subtracted from $\dfrac{-3}{4}$ to get $\dfrac{5}{6}$?

   A) $\dfrac{19}{12}$ B) $\dfrac{-19}{12}$ C) $\dfrac{-1}{12}$ D) 12

51. The rational number not lying between $\dfrac{1}{3}$ and $\dfrac{1}{2}$ is

   A) $\dfrac{5}{12}$ B) $\dfrac{5}{6}$ C) $\dfrac{11}{24}$ D) $\dfrac{23}{48}$

52. If the supplement of an angle is three times its complement then angle is

   A) 40°   B) 35°   C) 50°   D) 45°

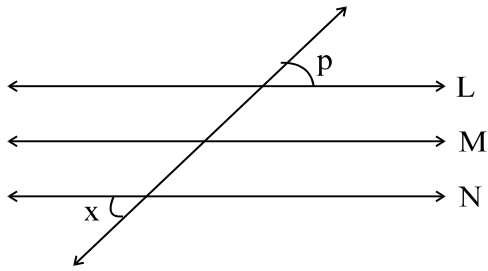53. In the given figure, $\angle x$ is grreater then one fifth of a right angle then
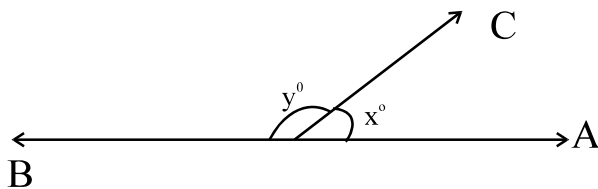
   A) y>162°   B) $y \geq 162°$ C) $y \leq 162°$ D) $y < 162°$

54. If $(3x+20)°$ and $(2x+25)°$ are supplementary angles then the value of x, is

   A) 27°   B) 34°   C) 63°   D) 80°

55. In the below figure $L \parallel M, M \parallel N$ and $\angle P = 65^0$ the value of $\angle x$ is

A) 65° B) 115° C) 25° D) 45°

56. The difference in the measures of two complementary angles is 20°. Then measure of angles are
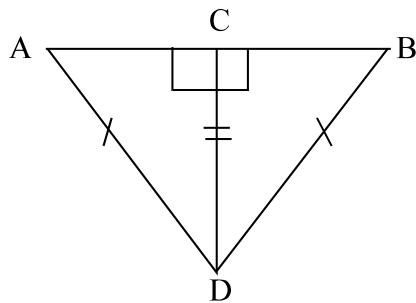
A) 15°, 35° B) 25°, 45° C) 35°, 55° D) 45°, 65°

57. Which of the following is not the criteria for the congruency of triangle

A) ASA B) AAS C) SSS D) SSA

58. $\Delta PQR \cong \Delta SRQ$ by SAS axiom. Which of the following is not a matching part?

A) PQ = SR B) <PQR = <SRQ C) PQ = SQ D) QR = RQ

59. In the given figure if $AC \perp CD, BC \perp CD$ and $AD = BD$ then CA is equal to

A) AD B) CD C) BD D) BC

60. In ΔABC, AB = 3.5cm, BC=7.1cm, AC = 5cm and in ΔPQR, PQ = 7.1cm, QR = 5cm, PR = 3.5cm then

A) $\Delta ABC \cong \Delta PQR$ B) $\Delta ABC \cong \Delta RPQ$ C) $\Delta ABC \cong \Delta QPR$ D) $\Delta ABC \cong \Delta QRP$

SAMPLE QUESTION - KEY

Class : VII

PHYSICS + CHEMISTRY + BIOLOGY + MATHS

PHYSICS		CHEMSTRY		BIOLOGY		MATHEMATICS	
1.	C	16.	C	31.	B	46.	A
2.	B	17.	B	32.	D	47.	B
3.	B	18.	D	33.	D	48.	A
4.	D	19.	D	34.	C	49.	D
5.	A	20.	B	35.	B	50.	B
6.	D	21.	A	36.	B	51.	B
7.	D	22.	B	37.	D	52.	D
8.	B	23.	C	38.	B	53.	D
9.	A	24.	B	39.	A	54.	A
10.	A	25.	D	40.	B	55.	A
11.	C	26.	B	41.	A	56.	C
12.	C	27.	B	42.	A	57.	D
13.	D	28.	D	43.	B	58.	C
14.	C	29.	A	44.	A	59.	D
15.	D	30.	C	45.	D	60.	B