MENIIT

NEET | IIT-JEE | FOUNDATION

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ADMISSION TEST (NEET)

SAMPLE PAPER Set-1

COURSE : XI (Two Year Medical)

PHYSICS

1. The relation between magnification m, the object position u and focal length f of the mirror is:

(A) $m=\frac{f-u}{f}$ (B) $m=\frac{f}{f-u}$ (C) $m=\frac{f+u}{f}$ (D) $m=\frac{f}{f+u}$

2. v_1 is velocity of light in first medium, v_2 is velocity of light in second medium, then refractive index of second medium with respect to first medium is:

(A) v_1/v_2 (B) v_2/v_1 (C) $\sqrt{v_1/v_2}$ (D) $\sqrt{v_2/v_1}$

3. Electricity from the ocean can be generated based on utilizing.

(A) kinetic energy of the waves but not stored thermal energy
(B) stored thermal energy but not kinetic energy of the waves
(C) kinetic energy of the waves as well as stored thermal energy
(D) neither kinetic energy of the waves nor stored thermal energy

4. The ratio of the refractive index of red light to blue light in air is:

(A) Less than unity
(B) Equal to unity
(C) Greater than unity
(D) Less as well as greater than unity depending upon the experimental arrangement

5. The refractive index of glass and water with respect to air are 3/2 and 4/3 respectively. The refractive index of glass with respect to water is:

(A) 8/9 (B) 9/8 (C) 2 (D) 1/2

6. If ${}_i\mu_j$ represents refractive index when a light ray goes from medium i to medium j, then the product ${}_2\mu_1 \times {}_3\mu_2 \times {}_4\mu_3$ is equal to:

(A) ${}_3\mu_1$ (B) ${}_3\mu_2$ (C) $\frac{1}{{}_1\mu_4}$ (D) ${}_4\mu_2$

7. What is the basic reason for the shining of a diamond?

(A) Reflection (B) Refraction
(C) Dispersion of light (D) Total internal reflection

8. Total internal reflection of a ray of light is possible when the (i_c = critical angle, i = angle of incidence)

(A) Ray goes from denser medium to rarer medium and $i < i_c$
(B) Ray goes from denser medium to rarer medium and $i > i_c$
(C) Ray goes from rarer medium to denser medium and $i > i_c$
(D) Ray goes from rarer medium to denser medium and $i < i_c$

9. A convex lens of focal length A and a concave lens of focal length B are placed in contact. The focal length of the combination is:

(A) A + B (B) (A –B) (C) $\frac{AB}{(A+B)}$ (D) $\frac{AB}{(B-A)}$

10. Near and far points of a human eye are:
(A) zero and 25 cm (B) 25 cm and 50 cm
(C) 50 cm and 100 cm (D) 25 cm and infinite

11. Which of the following is used in optical fibres?
(A) Total internal reflection (B) Scattering
(C) Diffraction (D) Refraction

12. A plane glass slab is kept over various coloured letters; the letter which appears least raised is:
(A) blue (B) violet (C) green (D) red

13. A convex lens is making full image of an object. If half of lens is covered by an opaque object, then:
(A) half image is not seen (B) full image of same intensity is seen
(C) full image of decreased intensity is seen (D) half image of same intensity is seen

14. When a thin convex lens is put in contact with a thin concave lens of the same focal length (f), the resultant combination has a focal length equal to:
(A) $f/2$ (B) $2f$ (C) 0 (D) ∞

15. The device which measures electric potential difference between two points is called:
(A) ammeter (B) voltmeter (C) manometer (D) water meter

16. The device which measures electric current through a conductor is called:
(A) ammeter (B) voltmeter (C) manometer (D) water meter

17. Electric current in a conducting wire is produced by flow of:
(A) electrons (B) protons (C) negative ions (D) positive ions

18. Direction of flow of conventional current is taken from:
(A) negative to positive (B) positive to negative
(C) any of the above two (D) none of the above two

19. The law which gives a relation between electric potential difference and electric current is called:
(A) Faraday's law (B) Oersted's law (C) Ohm's law (D) Newton's law

20. With increase in temperature, resistance of a conductor:
(A) decreases
(B) increases
(C) may decreases or increase according to the situation
(D) no particular observation

21. In series combination, total resistance:
(A) decreases (B) increases
(C) may decrease or increase according to the situation
(D) no particular observation

22. In parallel combination, total resistance:
(A) decreases (B) increases
(C) may decrease or increase according to the situation
(D) no particular observation

23. In series combination, resistance increases due to increase in:
(A) temperature (B) humidity
(C) length (D) area of cross-section

24. In parallel combination, resistance decreases due to increase in:
(A) temperature (B) humidity (C) length (D) area of cross-section

25. Central part of an atom is called:
(A) molecule (B) proton (C) ion (D) nucleus

26. Coming of live wire and neutral wire in direct contact causes:
(A) Short-circuiting (B) Over-loading
(C) No damage (D) Unknown effect

27. The site of a hydroelectric plant should be chosen carefully because it:
(A) produces a large amount of carbon monoxide and carbon dioxide
(B) produces a large amount of electricity
(C) affects the organisms of the region
(D) is expensive

28. Melting point of material of a fuse wire must be:
(A) Moderate (B) High (C) Low (D) Infinite

29. A high powered electric appliance has used inferior wires and is not earthed. It is a source of:
(A) No concern (B) Less concern
(C) Moderate concern (D) Hazard

30. Which of the following correctly describes the magnetic field near a long straight wire?
(A) The field consists of straight lines perpendicular to the wire
(B) The field consists of straight lines parallel to the wire
(B) The field consists of radial lines originating from the wire
(D) The field consists of concentric circles centred on the wire

31. The phenomenon of electromagnetic induction is:
(A) The process of charging a body
(B) The process of generating magnetic field due to a current passing through a coil
(C) Producing induced current in a coil by relative motion between a magnet and the coil
(D) The process of rotating a coil of an electric motor

32. The device used for producing electric current is called a:
(A) Generator (B) Galvanometer (C) Ammeter (D) Motor

33. At the time of short-circuit, the current in the circuit:
(A) Reduces substantially (B) Does not change
(C) Increases heavily (D) Vary continuously

34. The frequency of household supply of a.c. in India is:
(A) Zero (B) 50 Hz (C) 60 Hz (D) 100 Hz

35. Two parallel conductor carrying current in the opposite directions:
(A) Repel each other
(B) Attract each other
(C) Sometimes attract and sometimes repel each other
(D) None of these

CHEMISTRY

36. Which of the following is an allotropic form of carbon?
(A) diamond (B) graphite (C) fullerene (D) All of these

37. Diamond is not a good conductor of electricity because
(A) It is very hard
(B) Its structure is very compact.
(C) It is not water soluble.
(D) It has no free electrons to conduct electric current.

38. In a double covalent bond number of electron pairs shared is
(A) 2 (B) 3 (C) 4 (D) 6

39. Which of the following compound contains only single covalent bonds?
(A) oxygen (B) nitrogen (C) methane (D) carbon dioxide

40. Carbon dioxide molecule contains
(A) single covalent bonds only (B) double covalent bond
(C) triple covalent bonds only (D) ionic bonds only

41. Covalent bond between atoms is formed by
(A) loss of electrons (B) gain of electrons
(C) sharing of electrons (D) loss and gain of electrons both

42. Covalent compounds can be dissolved in
(A) benzene (B) ether (C) alcohol (D) All of these

43. Covalent compounds are
(A) good conductors of electricity
(B) bad conductors of electricity
(C) some are good and some are bad conductors of electricity
(D) None of these

44. Which of the following allotrope of carbon is used in making lead of pencils?
(A) diamond (B) graphite (C) fullerene (D) plastic

45. In the structure of diamond each carbon makes
(A) 2 covalent bonds (B) 4 covalent bonds
(C) 3 covalent bonds (D) 1 covalent bond

46. The general formula for a saturated hydrocarbon is
(A) C_nH_{2n+2} (B) C_nH_{2n} (C) C_nH_{2n-2} (D) C_nH_{2n-n}

47. Select the alkyne from the following
(A) C_4H_8 (B) C_5H_8 (C) C_7H_{19} (D) C_3H_8

48. The first organic compound to be prepared in the laboratory starting from its elements was
(A) methane (B) ethyl alcohol (C) acetic acid (D) urea

49. In order to form branching, an organic compound must have a minimum of
(A) four carbon atoms (B) three carbon atoms
(C) five carbon atoms (D) any number of carbon atoms

50. The number of C – H bonds in ethane (C_2H_6) molecule is
(A) four (B) six (C) eight (D) ten

51. The ability of metals to be drawn into thin wire is known as

(A) ductility (B) malleability (C) sonorosity (D) conductivity

52. Which of the following oxide(s) of iron would be obtained on prolonged reaction of iron with steam?

(A) FeO (B) Fe_2O_3 (C) Fe_3O_4 (D) Fe_2O_3 and Fe_3O_4

53. Generally, metals react with acids to give salt and hydrogen gas. Which of the following acids does not give hydrogen gas on reacting with metals (except Mn and Mg)?

(A) H_2SO_4 (B) HCl (C) HNO_3 (D) All of these

54. Elements X and Y have electron configuration as: X: 2,5 and Y: 2, 3
Which compound is likely formed from X and Y?

(A) X_3Y_5 (B) YX_3 (C) XY_2 (D) YX

55. Calamine ore can be used to extract one of the following metals. This metal is

(A) Cu (B) Pb (C) Sn (D) Zn

56. The metal which is always present in an amalgam

(A) Aluminium (B) Iron (C) Mercury (D) Lead

57. Which of the following is an ore of mercury metal?

(A) rock salt (B) cinnabar (C) calamine (D) hematite

58. If copper is kept exposed to damp air for a considerable time, it gets a green coating on its surface. This is due to the formation of-

(A) hydrated copper sulphate (B) copper oxide
(C) basic copper carbonate (D) copper nitrate

59. During galvanization, iron metal is given a thin coating of one of the following metals. The metal is

(A) Silver (B) Tin (C) Zinc (D) Aluminium

60. Barium chloride on reacting with ammonium sulphate forms barium sulphate and ammonium chloride. Which of the following correctly represents the type of reaction involved?

(i) Displacement reaction (ii) Precipitation reaction
(iii) Combination reaction (iv) Double displacement reaction

(A) (i) only (B) (ii) only (C) (iv) only (D) (ii) & (iv)

61. Change of $Na_2CO_3.10H_2O$ to $Na_2CO_3.H_2O$ on exposure to air is called:

(A) Efflorescence (B) Effervescence (C) Fluorescence (D) Luminescence

62. Which of the statement about the reaction below are incorrect?

$$2PbO(s) + C(s) \longrightarrow 2Pb(s) + CO_2(g)$$

(i) Lead is getting reduced (ii) Carbon dioxide is getting oxidized
(iii) Carbon is getting oxidized (iv) Lead oxide is getting reduced

(A) (i) & (ii) (B) (i) & (iii) (C) (i), (ii) & (iii) (D) All of these

63. When CO_2 is passed through lime water, it turns milky. The milkiness is due to formation of

(A) $CaCO_3$ (B) $Ca(OH)_2$ (C) H_2O (D) CO_2

64. For dilution of concentrated acid, we should add

(A) water into concentrated acid
(B) concentrated acid into water
(C) first water into acid and then more acid
(D) both (A) & (B) are correct

65. Which of the following is a displacement reaction?

(A) $CaO + H_2O \rightarrow Ca(OH)_2$ (B) $MgCO_3 \rightarrow MgO + CO_2$

(C) $CuSO_4 + Fe \rightarrow FeSO_4 + Cu$ (D) $H_2 + Cl_2 \rightarrow 2HCl$

66. The process of reduction involves

(A) removal of hydrogen (B) gain of electrons

(C) addition of oxygen (D) loss of electrons

67. Oxidation is a process which involves

(A) addition of oxygen (B) addition of hydrogen

(C) addition of chlorine (D) none of these

68. Which of the following is a decomposition reaction?

(A) $ZnCO_3 \rightarrow ZnO + CO_2$ (B) $BaCl_2 + Na_2SO_4 \rightarrow BaSO_4 + 2NaCl$

(C) $Zn + 2\ HCl\ (aq) \rightarrow ZnCl_2\ (aq) + H_2$ (D) $3MnO_2 + 4Al \rightarrow 3\ Mn + 2Al_2O_3$

69. Which of the following statements is correct?

(A) Oxidation involves gain of electrons

(B) The substance which gets reduced acts as a reducing agent

(C) Exothermic reactions proceed with absorption of heat

(D) $NaHCO_3$ is sodium bicarbonate

70. Which of the following are not ionic compounds?

(i) KCl (ii) HCl (iii) CCl_4 (iv) NaCl

(A) (i) and (ii) (B) (ii) and (iii)

(C) (iii) and (iv) (D) (i) and (iii)

BIOLOGY

71. The oxygen in photosynthesis is released from:

(A) CO_2 (B) H_2O (C) Carbohydrate (D) Chlorophyll

72. The structure which prevent the entry of food into respiratory tract is:

(A) Pharynx (B) Larynx (C) Glottis (D) Epiglottis

73. In respiration, air passes through:

(A) Pharynx, Nasal cavity, Larynx, Trachea, Bronchi, Bronchiole, Lungs

(B) Nasal cavity, Pharynx, Larynx, Trachea, Bronchi, Bronchiole, Lungs

(C) Larynx, Nasal cavity, Pharynx, Trachea, Lungs

(D) Larynx, Pharynx, Trachea, Lungs

74. Vocal cords occur in:

(A) Pharynx (B) Larynx (C) Glottis (D) Bronchial tube

75. Right atrium of mammalian heart receives blood from:

(A) Sinus venosus (B) Pulmonary veins

(C) Precavals (D) Pre-and postcavals

76. In adult human, normal BP is:

(A) 100/80 mm Hg (B) 120/80 mm Hg

(C) 100/120 mm Hg (D) 80/120 mm Hg

77. The blood pressure is measured by:
(A) Electrocardiogram (ECG) (B) Stethoscope
(C) Sphygmomanometer (D) Pulse rate

78. The carbohydrate synthesized in the leaves are transported through sieve tubes most commonly in the form of:
(A) Glucose (B) Fructose (C) Sucrose (D) Soluble starch

79. Nitrogenous waste products are eliminated mainly as:
(A) Urea in tadpole & ammonia in adult frog (B) Ammonia in tadpole and urea in adult frog
(C) Urea in both tadpole & adult frog (D) Urea in tadpole and uric acid in adult frog

80. Main functions of kidney is:
(A) Passive adsorption (B) Ultrafiltration
(C) Selective reabsorption (D) Both (B) and (C)

81. Urine leaves the kidney through:
(A) Urethra (B) collecting duct (C) renal vein (D) ureter

82. Cytokinin:
(A) Is a growth hormone (B) Is the process of cell division
(C) Retards cell division (D) Causes seed dormancy

83. Which of the following is a growth inhibitor hormone?
(A) Cytokinin (B) Gibberellin (C) Auxin (D) Abscisic acid

84. Which of the following produces male gametes in a flower?
(A) sepals (B) petals (C) carpels (D) stamens

85. Vegetative reproduction in plants like citrus, jasmine and grapevine is done by the process of:
(A) stem layering (B) stem cutting (C) stem grafting (D) none of these

86. Binary fission commonly occurs in:
(A) *Plasmodium* (B) *Hydra* (C) *Planaria* (D) *Amoeba*

87. Which type of reproduction of *Hydra* is most common?
(A) Budding (B) Fragmentation
(C) Sexual reproduction (D) Spore formation

88. Animals which give birth to young ones are called:
(A) amphibious (B) oviparous (C) triploblastic (D) viviparous

89. Fertilization in frog takes place in:
(A) Uterus (B) Fallopian tube (C) Water (D) Cervix

90. Egg-producing animals such as birds are called:
(A) unisexual (B) oviparous (C) viviparous (D) hermaphrodite

91. Puberty age in girls is between:
(A) 12–18 years of age (B) 10–14 years of age
(C) 14–20 years of age (D) 15–18 years of age

92. Posture and balance of the body is controlled by
(A) cerebrum (B) cerebellum (C) medulla (D) pons

93. Proteins after digestion are converted into
(A) Carbohydrates (B) Small globules
(C) Amino acids (D) Starch

94. Main site of photosynthesis B
(A) Leaf (B) Stem
(C) Chloroplast (D) Guard cells

95. Functional unit of nervous system is:
(A) neuron (B) nephron (C) cyton (D) spinal chord

96. In amoeba, food is digested in the:
(A) food vacuole (B) mitochondria
(C) pseudopodia (D) chloroplast

97. Which of the following is the monohybrid phenotypic ratio?
(A) 3: 1 (B) 9: 7 (C) 1: 2 (D) 9: 3: 3: 1

98. Considering tallness and dwarfness, tallness is more wide spread among pea plants because:
(A) Tallness is dominant over dwarfness
(B) Tallness is determined by one gene having many effects
(C) Tallness is determined by many genes having multiple effects
(D) None of these

99. If a plant is heterozygous for tallness, then next generation has both tall and dwarf plants. This proves the principle of:
(A) dominance (B) segregation
(C) independent assortment (D) incomplete dominance

100. When a true breeding tall plant is crossed with a true breeding short plant and the F_1 produced is self pollinated to produce F_2 generation, the ratio of true breeding tall and true breeding short plant in F_2 will be:
(A) 1 : 2 (B) 1 : 1 (C) 2 : 1 (D) 1 : 3

101. Collapsing of trachea is prevented by:
(A) Muscles (B) Ribs
(C) Cartilaginous rings (D) None of these

102. Secondary product of photosynthesis are:
(A) Glucose (B) Carbon Dioxide
(C) Oxygen (D) All the above

103. Malphigian Corpouscle includes:
(A) Only Bowman's capsule
(B) Only Glomerulus
(C) Both Glomerulus and Bowman's capsule
(D) Afferent arteriole

104. Function of RBC is:
(A) Blood clotting. (B) Immunity.
(C) Digestion (D) Transport of gases.

105. Salivary Amylase helps in the digestion :
(A) Carbohydrates (B) Proteins
(C) Fats (D) All

MENTAL ABILITY

106. In family of six persons, A is the grandfather of F. D and E are children of B and C. C and D are females. How is B related to C?

(A) Father (B) Mother (C) Husband (D) Wife

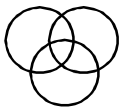
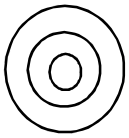
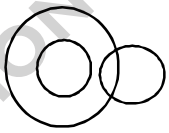
107. Pointing towards a man another man said, he is the son of my father's sister. Then what is the relation between them?

(A) Father-Son (B) Brother (C) Cousin (D) Uncle-Nephew

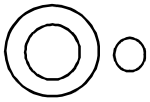
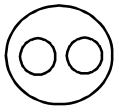
108. Ram is the brother of Deepak, Sunita is sister of Rajesh, Deepak is the son of Sunita. How is Ram related to Sunita?

(A) Son (B) Brother (C) Nephew (D) Father

109. Which of the following diagram correctly represents India, Pakistan and Asia?

(A)  (B)  (C)  (D) 

110. Which of the following diagrams indicates the best relation between Examination, Questions and Practice?

(A)  (B)  (C)  (D) 

111. A child goes 50 metre towards South and then turning to his right, he goes 50 metre. Then turning to his left, he goes 50 metre. Then, turning to his left, he goes 50 metre. Again he turns to his left and goes 50 metre. How far is he from his initial position?

(A) 30 metre (B) 40 metre (C) 50 metre (D) 80 metre

112. While facing East you turned to your left and walk 10 m, then turned to your left and walk 10 m and now you turn 45° towards your right and go straight to cover 25 m. Now in which direction are you from your starting point?

(A) North-East (B) South-West (C) South-East (D) North-West

113. Amit is now 6 times as old as his son. Four years from now, the sum of their ages will be 43 years. Determine Amit's present age:

(A) 30 year (B) 32 year (C) 34 year (D) 28 year

114. Five boys were climbing up hill. Jayant was following Hari. Ram was ahead of Govind, Krishna was between Govind and Hari. They were climbing up in a row. Who was second?

(A) Jayant (B) Govind (C) Ram (D) Hari

115. If Ashok is taller than Suresh, Raju is taller than Ashok, Chandu is shorter than Suresh, then Chandu is:

(A) Taller than Ashok (B) As tall as Suresh
(C) Taller than Suresh (D) Shorter than Ashok

116. Complete the missing number in the following series

3, 5, 7, 9, 11, 13, 15, 17, ?

(A) 14 (B) 19 (C) 15 (D) 21

117. Complete the missing number in the following series.
1, 4, 9, 16, 25, ?
(A) 35 (B) 36 (C) 37 (D) 49

118. Find the missing number of the given series: – 1, 3, 9, 17, 27, ? , 53
(A) 38 (B) 39 (C) 45 (D) None of these

119. Four friends A, B, C and D live in a same locality. The house of B is in the east of A's house but in the north of C's house. The house of C is in the west of D's house. D's house is in which direction of A's house:
(A) South – East (B) North-East (C) East (D) North

120. Sonu walks 20km towards North. He turns left and walks 40 km. He again turns left and walks 20 km. Finally, he moves 20 km after turning to the left. How far is he from his starting point?
(A) 30 km (B) 20 km (C) 50 km (D) 60 km

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Answer Key [Sample Paper : NEET-XI] SET-1

1	(B)	21	(B)	41	(C)	61	(A)	81	(D)	101	(C)
2	(A)	22	(A)	42	(D)	62	(B)	82	(A)	102	(C)
3	(C)	23	(C)	43	(C)	63	(A)	83	(D)	103	(C)
4	(A)	24	(D)	44	(B)	64	(B)	84	(D)	104	(D)
5	(B)	25	(D)	45	(B)	65	(C)	85	(A)	105	(A)
6	(C)	26	(A)	46	(A)	66	(B)	86	(D)	106	(C)
7	(D)	27	(C)	47	(B)	67	(A)	87	(A)	107	(C)
8	(B)	28	(C)	48	(C)	68	(A)	88	(D)	108	(A)
9	(D)	29	(D)	49	(A)	69	(D)	89	(C)	109	(C)
10	(D)	30	(D)	50	(B)	70	(B)	90	(B)	110	(C)
11	(A)	31	(C)	51	(A)	71	(B)	91	(B)	111	(C)
12	(B)	32	(A)	52	(C)	72	(D)	92	(B)	112	(D)
13	(C)	33	(C)	53	(C)	73	(B)	93	(C)	113	(A)
14	(D)	34	(B)	54	(B)	74	(B)	94	(C)	114	(B)
15	(B)	35	(A)	55	(D)	75	(D)	95	(A)	115	(D)
16	(A)	36	(D)	56	(C)	76	(B)	96	(A)	116	(B)
17	(A)	37	(D)	57	(B)	77	(C)	97	(A)	117	(B)
18	(B)	38	(A)	58	(C)	78	(C)	98	(A)	118	(B)
19	(C)	39	(C)	59	(C)	79	(B)	99	(B)	119	(A)
20	(B)	40	(B)	60	(D)	80	(D)	100	(B)	120	(B)