IGNESCENT GURUKUL

It's Time to Revive Yourself

NEET MOCK TEST

N.W. -2025-01

M M: 720 Time: 200 Min.

Syllabus of this Test is:

- **Physics:** Full Syllabus
- **Chemistry:** Full Syllabus
- **Biology**: Full Syllabus

Note: Correct option marked will be given (4) marks and incorrect options marked will be minus one (-1) mark. Unattempt /Unanswered Questions will be given no marks.

General Instructions:

- Read each question carefully.
- It is mandatory to use Blue/Black Ball Point Pen to darken the appropriate circle in the answer sheet.
- Mark should be dark and should completely fill the circle.
- Student cannot use log tables and calculators or any other material in the examination hall.
- Before attempting the question paper, student should ensure that the test paper contains all pages and no page is missing.
- Each correct answer carries four marks; one mark will be deducted for each incorrect answer from the total score.
- Immediately after the prescribed examination time is over, the answer sheet to be returned to the invigilator.
- There is total '**180 Question**'. You have to attempt all **45** questions from **section A** & **B** and **90** questions from **section c**.
- Unanswered/Unattempt questions will be given no marks. In case, a question is dropped/ignored all candidates will be given four marks (+4) irrespective of the fact whether the question has been attempted or not attempted by the candidate.

Name of the Candidates (in Capitals): .....

Date: .....

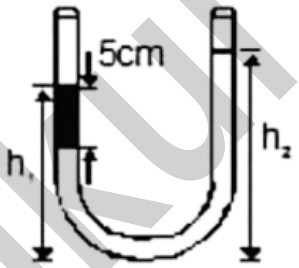
Invigilators' Signature:

PHYSICS

SECTION – A

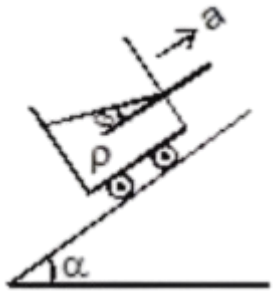
1. The venturi-meter works on:
(a) Bernoulli's principle
(b) The principle of parallel axes
(c) The principle of perpendicular axes
(d) Huygen's principle

2. An open-ended U-tube of uniform cross-sectional area contains water (density 1.0 gram/centimeter^3) standing initially 20 centimeters from the bottom in each arm. An immiscible liquid of density 4.0 grams/centimeter is added to one arm until a layer 5 centimeters high forms, as shown in the figure above. What is the ratio h_2/h_1 of the heights of the liquid in the two arms?



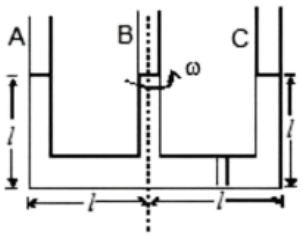
(a) 3/1
(b) 5/2
(c) 2/1
(d) 3/2

3. A fluid container is containing a liquid of density r is accelerating upward with acceleration a along the inclined place of inclination a as shown. Then the angle of inclination q of free surface is:



(a) $tan^{-1}\left[\frac{g}{g\cos\alpha}\right]$
(b) $tan^{-1}\left[\frac{a+g\sin\alpha}{g\cos\alpha}\right]$
(c) $tan^{-1}\left[\frac{a-g\sin\alpha}{g(1+\cos\alpha)}\right]$
(d) $tan^{-1}\left[\frac{a-g\sin\alpha}{g(1-\cos\alpha)}\right]$

4. Figure shows a three arm tube in which a liquid is filled upto levels of height I. It is now rotated at an angular frequency w about an axis passing through arm B. The angular frequency w at which level of liquid of arm B becomes zero.

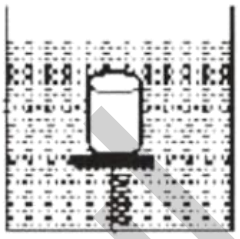


(a) $\sqrt{\frac{2g}{3l}}$
(b) $\sqrt{\frac{g}{l}}$
(c) $\sqrt{\frac{3g}{l}}$
(d) $\sqrt{\frac{3g}{2l}}$

5. A metal ball of density 7800 kg/m^3 is suspected to have a large number of cavities. It weighs 9.8 kg when weighed directly on a balance and 1.5 kg less when immersed in water. The fraction by volume of the cavities in the metal ball is approximately
(a) 20%
(b) 30%
(c) 16%
(d) 11%

6. A rectangular tank is placed on a horizontal ground and is filled with water to a height H above the base. A small hole is made on one vertical side at a depth D below the level of the water in the tank. The distance x from the bottom of the tank at which the water jet from the tank will hit the ground is
(a) $2\sqrt{D(H-D)}$
(b) $2\sqrt{DH}$
(c) $2\sqrt{D(H+D)}$
(d) $\frac{1}{2}\sqrt{DH}$

7. A cylindrical block of area of cross-section A and of material of density r is placed in a liquid of density one-third of density of block. The block compresses a spring and compression in the spring is one-third of the length of the block. If acceleration due to gravity is g, the spring constant of the spring is



(a) rAg
(b) 2rAg
(c) 2rAg/3
(d) rAg/3

8. A sphere of radius R and made of material of relative density s has a concentric cavity of radius r. It just floats when placed in a tank full of water. The value of the ratio R/r will be

(a) $\left(\frac{\sigma}{\sigma-1}\right)^{1/3}$ (b) $\left(\frac{\sigma-1}{\sigma}\right)^{1/3}$ (c) $\left(\frac{\sigma+1}{\sigma}\right)^{1/3}$ (d) $\left(\frac{\sigma-1}{\sigma+1}\right)^{1/3}$

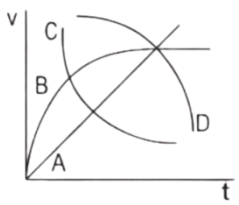
9. Two copper vessels A and B have the same base area but of different shapes. A takes twice the volume of water as that B requires to fill upto a particular common height. Then the correct statement among the following is.
(a) Vessel B weighs twice that of A.
(b) Pressure on the base area of vessels A and B is same
(c) Pressure on the base area of vessels A and B is not same
(d) Both vessels A and B weigh the same

10. Let a wire be suspended from the ceiling (rigid support) and stretched by a weight W attached at its free end. The longitudinal stress at any point of cross-sectional area A of the wire is:
(a) W/A (b) W/ 2A (c) Zero (d) 2W/A

11. The terminal velocity of a copper ball of radius 5 mm falling through a tank of oil at room temperature is 10 cm s^{-1}. If the viscosity of oil at room temperature is 0.9 kg m^{-1} s^{-1}, the viscous drag force is:
(a) 4.32×10^{-6} N (b) 8.48×10^{-3} N
(c) 8.48×10^{-5} N (d) 4.23×10^{-3} N

12. If a soap bubble expands, the pressure inside the bubble
(a) Decreases (b) Increases
(c) Remains the same (d) Is equal to the atmospheric pressure

13. A spherical ball is dropped in a long column of a highly viscous liquid. The curve in the graph shown, which represents the speed of the ball (v) as a function of time



(a) A
(b) B
(c) C
(d) D

14. Read the assertion and reason carefully to mark the correct option out of the options given below:
Assertion: Young's modulus for a perfectly plastic body is zero.
Reason: For a perfectly plastic body, restoring force is zero.
(a) If both assertion and reason are true and the reason is the correct explanation of the assertion.

(b) If both assertion and reason are true but reason is not the correct explanation of the assertion.
(c) If assertion is true but reason is false.
(d) If the assertion and reason both are false.

15. Read the assertion and reason carefully to mark the correct option out of the options given below:
Assertion: Stress is the internal force per unit area of a body.
Reason: Rubber is less elastic than steel.
(a) If both assertion and reason are true and the reason is the correct explanation of the assertion.
(b) If both assertion and reason are true but reason is not the correct explanation of the assertion.
(c) If assertion is true but reason is false.
(d) If the assertion and reason both are false.

16. A steel rod 2.0 m long has a cross-sectional area of 0.30 cm^2. It is hung by one end from a support, and a 550-kg milling machine is hung from its other end. Determine the resulting strain. Young's Modulus of Steel (Y)= 20×10^{10} Pa
(a) 8.0×10^{-4} (b) 10.0×10^{-4} (c) 7.0×10^{-4} (d) 9.0×10^{-4}

17. A piece of copper having a rectangular cross-section of 15.2 mm x 19.1 mm is pulled in tension with 44,500 N force, producing only elastic deformation. Calculate the resulting strain? Take Young's modulus of copper as 42×10^9 Pa
(a) 3.65×10^{-8} (b) 3.65×10^{-3} (c) 3.65×10^{-9} (d) 3.65×10^{-2}

18. What diameter should a 10-m-long steel wire have if we do not want it to stretch more than 0.5 cm under a tension of 940 N? Take Young's modulus of steel as 20×10^{10} Pa
(a) 3.2 mm (b) 3.0 mm (c) 3.4 mm (d) 3.6 mm

19. A 200-kg load is hung on a wire with a length of 4.00 m, a cross-sectional area of 0.200×10^{-4} m^2 and a Young's modulus of 8.00×10^{10} N /m^2. What is its increase in length?
(a) 4.80 mm (b) 4.70 mm (c) 4.90 mm (d) 4.60 mm

20. If the elastic limit of copper is 1.5×10^8 N/m^2 determine the minimum diameter a copper wire can have under a load of 10.0 kg if its elastic limit is not to be exceeded.
(a) 1.012 mm (b) 0.912 mm (c) 0.712 mm (d) 0.812 mm

21. A circular steel wire 2.00 m long must stretch no more than 0.25 cm when a tensile force of 400 N is applied to each end of the wire. What minimum diameter is required for the wire?
(a) 1.4 mm (b) 10 mm (c) 1.5 mm (d) 12.4 mm

22. A garden sprinkler has 150 small holes, each of 2 mm^2 area. If water is supplied at the rate of 0.3 litres/s, then find the average velocity of the spray.
(a) 300 cm/s (b) 22.5 cm/s (c) 0.1 cm/s (d) 100 cm/s

23. If pressure at half the depth of a lake is equal to 2/3 pressure at the bottom of the lake then what is the depth of the lake
(a) 10 m (b) 20 m (c) 60 m (d) 30 m

24. An inverted bell lying at the bottom of a lake 47.6 m deep has 50 cm of air trapped in it. The bell is brought to the surface of the lake. The volume of the trapped air will be (atmospheric pressure = 70 cm of Hg and density of Hg = 13.6 g/cm)

(a) 350 cm (b) 300 cm (c) 250 cm (d) 22 cm

25. If two liquids of same masses but densities ρ_1 and ρ_2 respectively are mixed, then density of mixture is given by

(a) $\rho = \frac{\rho_1 + \rho_2}{2}$ (b) $\rho = \frac{\rho_1 + \rho_2}{2\,\rho_1\rho_2}$ (c) $\rho = \frac{2\,\rho_1\,\rho_2}{\rho_1 + \rho_2}$ (d) $\rho = \frac{\rho_1\,\rho_2}{\rho_1 + \rho_2}$

26. A hemispherical bowl just floats without sinking in a liquid of density 1.2 ×10 kg/m. If outer diameter and the density of the bowl are 1 m and 2 ×10 kg/m respectively, then the inner diameter of the bowl will be

(a) 0.94 m (b) 0.97 m (c) 0.98 m (d) 0.99 m

27. A ball whose density is 0.4 × 10 kg/m falls into water from a height of 9 cm. To what depth does the ball sink

(a) 9 cm (b) 6 cm (c) 4.5 cm (d) 2.25 cm

28. Two solids A and B float in water. It is observed that A floats with 1/2 of its body immersed in water and B floats with 1/4 of its volume above the water level. The ratio of the density of A to that of B is

(a) 4 :3 (b) 2 : 3 (c) 3 : 4 (d) 1 : 2

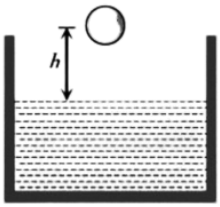
29. A manometer connected to a closed tap reads 3.5 × 10 N/m. When the valve is opened, the reading of manometer falls to 3.0 × 10 N/m, then velocity of flow of water is

(a) 100 m/s (b) 10 m/s (c) 1 m/s (d) 10√10 m/s

30. A large tank filled with water to a height 'h' is to be emptied through a small hole at the bottom. The ratio of time taken for the level of water to fall from h to h/2 and from h/2 to zero is

(a) √2 (b) 1/ √2 (c) √2 -1 (d) $\frac{1}{\sqrt{2}-1}$

31. A ball of radius rand density ρ falls freely under gravity through a distance h before entering water. Velocity of ball does not change even on entering water.
If viscosity of water is n, the value of his given by



(a) $\frac{2}{9}r^2\left(\frac{1-\rho}{\eta}\right)g$ (b) $\frac{2}{81}r^2\left(\frac{\rho-1}{\eta}\right)g$

(c) $\frac{2}{81}r^4\left(\frac{\rho-1}{\eta}\right)^2 g$ (d) $\frac{2}{9}r^4\left(\frac{\rho-1}{\eta}\right)^2 g$

32. The rate of steady volume flow of water through a capillary tube of length/and radius 'r' under a pressure difference of P is V. This tube is connected with another tube of the same length but half the radius in series. Then the rate of steady volume flow through them is (The pressure difference across the combination is P)

(a) V/16 (b) V/17 (c) 16 V/17 (d) 17V/16

33. A liquid is flowing in a horizontal uniform capillary tube under a constant pressure the diffarance P. The value of pressure for which the rate of flow of the liquid is doubled when the radius and length both are doubled is

(a) P (b) 2P/4 (c) 3P/4 (d) P/4

34. A constant volume gas thermometer shows pressure reading of 50cm and 90cm of mercury at 0°C and 100° C respectively. When the pressure reading is 60 cm of mercury, the temperature is

(a) 25°C (b) 40 °C (c) 15°C (d) 12.5 °C

35. A constant pressure air thermometer gave a reading of 47.5 units of volume when immersed in ice cold water, and 67 units in a boiling liquids. The boiling point of the liquid will be

(a) 135°C (b) 125 °C (c) 112°C (d) 100 °C

36. Two spheres made of same substance have diameters in the ratio 1:2. Their thermal capacities are in the ratio of

(a) 1 : 2 (b) 1 : 8 (c) 1 : 4 (d) 2 : 1

37. Work done in converting one gram of ice at -10°C into steam at 100° C is

(a) 3045 J (b) 6065 J (c) 721 J (d) 616 J

38. 2gm of steam condenses when passed through 40gm of water initially at 25°C. The condensation of steam raises the temperature of water to 54.3°C. What is the latent heat of steam

(a) 540 cal/g (b) 536 cal/g (c) 270 cal/g (d) 480 cal/g

39. Three liquids with masses M_1, M_2, M_3 are thoroughly mixed. If their specific heats are C_1, C_2, C_3 and their temperatures T_1, T_2, T_3 respectively, then the temperature of the mixture is

(a) $\frac{c_1T_1 + c_2T_2 + c_3T_3}{m_1c_1 + m_2c_2 + m_3c_3}$ (b) $\frac{m_1\,c_1T_1 + m_2\,c_2T_2 + m_3\,c_3T_3}{m_1c_1 + m_2c_2 + m_3c_3}$

(c) $\frac{m_1\,c_1T_1 + m_2\,c_2\,T_2 + m_3\,c_3T_3}{m_1\,T_1 + m_2T_2 + m_3T_3}$ (d) $\frac{m_1T_1 + m_2T_2 + m_3T_3}{c_1\,T_1 + c_2T_2 + c_3T_3}$

40. The apparent coefficient of expansion of a liquid when heated in a copper vessel is C and when heated in a silver vessel is S. If A is the linear coefficient of expansion of copper, then the linear coefficient of expansion of silver is

(a) $\frac{C + S - 3A}{3}$ (b) $\frac{C + 3A - S}{3}$ (c) $\frac{S + 3A - C}{3}$ (d) $\frac{C + S + 3A}{3}$

41. Four cylindrical rods of different radii and lengths are used to connect two heat reservoirs at fixed temperatures t_1 and t_2 respectively. From the following pick out the rod which will conduct the maximum quantity of heat

(a) Radius 1 cm, length 2 m (b) Radius 1 cm, length 1 m
(c) Radius 2 cm, length 4 m (d) Radius 3 cm, length 8 m

42. The temperature for which the reading on Celsius and Fahrenheit scales are identical is

(a) -237°C, -273°F (b) -30°C, -30°F
(c) 0°C, 0°F (d) -40°C, -40°F

43. A steel tape is calibrated at 20° C. A piece of wood is being measured by steel tape at 10°C and reading is 30 cm on the tape. The real length of the wood is
(a) Equal to 30 cm (b) less than 30 cm
(c) cannot be predicted (d) more than 30 cm

44. Which phase of matter has maximum value of temperature coefficient of cubical expansion?
(a) Gaseous (b) Solid (c) Liquid (d) none of these

45. The coefficient of liner expansion of a cubical crystal along three mutually perpendicular direction is α_1, α_2 and α_3. What is the coefficient of cubical expansion of crystal?
(a) $\alpha_1 + \alpha_2 + \alpha_3$ (b) $\alpha_1 + \alpha_2 - \alpha_3$ (c) $\alpha_1 - \alpha_2 - \alpha_3$ (d) $(\alpha_1 + \alpha_2)/\alpha_3$

CHEMISTRY

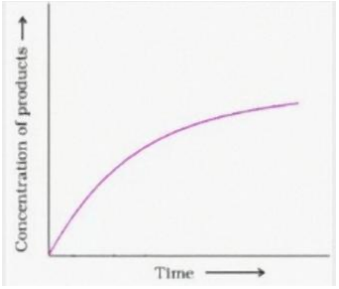
SECTION – B

46. In the following questions, A statement of Assertion (A) Is followed by a statement of Reason (R). Mark the correct choice as.
Assertion (A): Rate of reaction doubles when concentration of reactant is doubled if it is a first order reaction.
Reason (R): Rate constant also doubles.
(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 and R is true

47. In the following questions, A statement of Assertion (A) is followed by a statement of Reason (R). Mark the correct choice as.
Assertion (A): Hydrolysis of an ester follows first order kinetics.
Reason (R): Concentration of water remains nearly constant during the course of the reaction
(a) Both A and Rare 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 and R is true

48. A foreign substance that increase the speed of a chemical reaction is called
(a) promotor (b) catalyst (c) moderator (d) Inhibitor

49. What will be the value of instantaneous rate of reaction from the graph?
(a) $r_{inst} = 1/$ Slope
(b) $r_{inst} =$ Slope
(c) $r_{inst} = -$ Slope
(d) $r_{inst} = -1/$ Slope



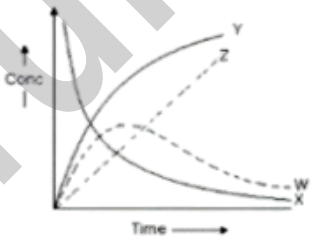
50. The rate of a chemical reaction doubles for every 10°C rise of temperature. If the temperature is raised by 50°C, the rate of the reaction increases by about
(a) 64 times (b) 32 times (c) 24 times (d) 10 times

51. Chemical substances speeding up rate of chemical reaction is called as
(a) pressure (b) concentration (c) catalysts (d) inhibitors

52. Chemical substances speeding up the rate of chemical reaction is called as
(a) pressure (b) concentration (c) catalysts (d) inhibitors

53. The rate constant of zero-order reactions has the unit
(a) s^{-1} (b) $L^2 mol^{-2} s^{-1}$ (c) $mol\ L^{-1}s^{-1}$ (d) $L\ mol^{-1}\ s^{-1}$

54. For the reaction A+B → C+ D. The variation of the concentration of the products is given by curve
(a) Y
(b) W
(c) Z
(d) X



55. A tetra atomic molecule (A) on reaction with nitrogen (I) oxide, produces two substances (B) and (C), (B) is a dehydrating agent in its monometric form while substance (C) is a diatomic gas which shows almost intert behavior. The substances (A) and (B) and (C) respectively will be
(a) P_4, P_4O_{10}, N_2 (b) P_4, N_2O_5, N_2
(c) P_4, P_2O_3, Ar (d) P_4, P_2O_3, H_2

56. First compound of intert gases was prepared by scientist Neil Barthleta in 1962. This compound is
(a) $XePtF_6$ (b) XeO_3 (c) XeF_6 (d) $XeOF_4$

57. Carbon give has X% of CO_2 and is used as an antidote for poisoning of Y. Then, X and Y are
(a) X = 95% & Y = lead poisoning (b) X = 5% & Y = CO poisoning
(c) X = 30% & Y = CO_2 poisoning (d) X = 45% & Y = CO poisoning

58. The correct order of acidic strength of oxide of nitrogen is
(a) $NO < NO_2 < N_2O < N_2O_3 < N_2O_5$ (b) $N_2O < NO < N_2O_3 < N_2O_4 < N_2O_5$
(c) $NO < N_2O < N_2O_3 < N_2O_5 < N_2O_4$ (d) $NO < N_2O < N_2O_5 < N_2O_3 < N_2O_4$

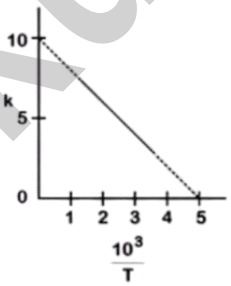
59. Nitrogen dioxide is dissolved in water to produce
(a) HNO_3 & HNO_2 (b) Only HNO_3 (c) ONLY HNO_2 (d) HNO_2 & N_2

60. Consider two reactions
I. $Zn + conc.\ HNO_3\ (hot) \rightarrow Zn(NO_3)_2 + X + H_2O$
II. $Zn + dil.\ HNO_3\ (cold) \rightarrow Zn(NO_3)_2 + Y + H_2O$
Compounds X and Y are respectively
(a) N_2O, NO (b) NO_2, N_2O (c) N_2, N_2O (d) NO_2, NO

61. $H_3BO_3 \xrightarrow{T_1} X \xrightarrow{T_2} Y \xrightarrow{red\ hot} B_2O_3$.
It T1 < T2 ten X and Y respectively are
(a) X = Metaboric acid & Y = Tetraboric acid
(b) X = Tetraboric acid & Y = Metaboric acid
(c) X = Borax & Y = Metaboric acid
(d) X = Tetraboric acid & Y = Borax

62. Boron forms BX_3 type of halides. The correct Increasing order of Lewis acid strength of these halides is
(a) $BF_3 > BCl_3 > BBr^3 > Bl_3$
(b) $BI_3 > BBr^3 > BCl_3 > Bl_3$
(c) $BF_3 > Bl_3 > BCl_3 > BBr_3$
(d) $BF_3 > BCl_3 > Bl_3 > BBr_3$

63. The rate constant (k) of a reaction is measured at different temperatures (T), and the data is plotted in the given figure. The activation energy of the reaction in kJ mol^{-1} is (R is gas constant)
(a) 1/R
(b) 2/R
(c) 2R
(d) R



64. In a chemical reaction, if a linear (y = mx) graph is obtained between half-life and concentration of reactants, then what is the order of the reaction?
(a) 0 (b) 1 (c) 3 (d) 2

65. The rate constant of reaction A → 2B is 1.0 × 10^{3} mol L^{-1} min^{-1}. If the initial concentration of A is 1.0 mol L^{-1}, then what is the concentration of B after 100 minutes?
(a) 0.1 mol L^{-1} (b) 0.2 mol L^{-1} (c) 0.9 mol L^{-1} (d) 1.8 mol L^{-1}

66. The reaction $2N_2O_5(g) \rightarrow 4\ NO_2(g) + O_2(g)$ provides a linear plot when In PN_2O_5 is plotted against t with a negative slope. The decomposition of N_2O_5 follows
(a) Zero-order kinetics
(b) First-order kinetics
(c) Third-order kinetics
(d) Second-order kinetics

67. For a first-order reaction, the ratio of times to complete 99.9% and half of the reaction is
(a) 8 (b) 9 (c) 10 (d)12

68. For a first-order reaction,
(a) The degree of dissociation of reactants is equal to 1 - e^{-kt}
(b) The pre-exponential factor in the Arrhenius equation has the dimension of time
(c) The time taken for the completion of 75% reaction is thrice of half-life time
(d) A plot of reciprocal of concentration of the reactant versus time is a straight line

69. The half-life of a zero-order reaction A → B is
(a) Directly proportional to the concentration of A
(b) Independent of the concentration of A.
(c) Inversely proportional to the concentration of A
(d) Determined by the concentration of B.

70. For a non-stoichiometric reaction $2A + B \rightarrow C + D$, the following kinetic data was obtained in three separate experiments, all at 298 K:

Initial Concentration (A)	Initial Concentration (B)	Initial Rate of Formation of C (mol L^{-1} 5^{-1})
0.1 M	0.1 M	1.2×10^{-3}
0.1 M	0.2 M	1.2×10^{-3}
0.2 M	0.1 M	2.4×10^{-3}

71. The tribasic acid is
(a) H_3PO_4 (b) H_3PO_3 (c) H_3PO_2 (d) HPO_3

72. The most stable allotropic form of phosphorus, which has graphite like structure and is good conductor of electricity, is
(a) Red Phosphorous (b) White phosphorous
(c) Black Phosphorus (d) Scarlet Phosphorous

73. The pair of products formed during the reaction of yellow phosphorous with aqueous potash solution is
(a) $Na_2H_2PO_2 + PH_3$ (b) $KH_2PO_2 + PH_3$
(c) $K_3PO_3 + PH_3$ (d) $K_3PO_2 + PH_3$

74. **Statement (I)-** The order of densities of the various allotropes of phosphorous is:
Black phosphorous > red phosphorous > white phosphorous.
Statement (II)- The density of various allotropes of phosphorous depends upon tendency of polymerization
Which of the following options is correct?
(a) Both statements (I) and (II) are correct and statement (II) is the correct explanation of statement (I).
(b) Both statements (I) and (II) are correct and statement (II) is not correct explanation of statement (I).
(c) Statements (I) is correct while statement (II) is incorrect.
(d) Both statements (I) and (II) are incorrect.

75. Which of the following does not belong to group 14?
(a) C (b) Si (c) Ga (d) Pb

76. Although CO is a neutral gas, yet it shows acidic nature or reaction with (at high pressure and temperature)
(a) LiOH (b) $Ca(OH)_2$ (c) NaOH (d) $Zn(OH)_2$

77. PnO_2
(a) Amphoteric (b) Acidic (c) Neutral (d) Basic

78. As we move down the group, the atomic and ionic radii of elements increase with increase in the atomic number. But the atomic radius of Ga is less than that of Al and there is very little increase in radius from Ga to TI. This is because of:
(a) higher nuclear charges of Ga and TI (b) the intervening d- and f-electrons
(c) High ionization energies of Ga and TI (d) None of these

79. Which of the following pairs of elements exhibits only one oxidation state?
(a) Zn and Au (b) Cu and Sc (d) Zn and Sc (d) Au and Ag

80. The reduction potential of Cr^{3+} is -0.41 V and that of Mn^{3+} is +1.51 V. Which of the following can be inferred from the given factual information?
(a) Cr^{3+} is less stable than Cr^{2+} (b) Mn^{3+} is a good oxidizing agent
(c) Cr^{2+} is a good oxidizing agent (d) Mn^{3+} is more stable than Mn^{2+}.

81. Which lanthanoid forms a compound with cobalt ($LnCo_5$), that has strong magnetic properties?
(a) sm (b) Lu (c) Tb (d) Nb

82. The correct order of the ionic radii is:
(a) $Eu^{3+} < Tb^{3+} < Gd^{3+} < Yb^{3+}$ (b) $Eu^{3+} > Gd^{3+} > Tb^{3+} > Yb^{3+}$
(c) $Eu^{3+} > Tb^{3+} > Yb^{3+} > Gd^{3+}$ (d) $Eu^{3+} < Yb^{3+} < Gd^{3+} < Tb^{3+}$

83. Which of the following does not attribute to the lanthanoid contractions?
(a) Ineffective shielding by the 4f-electrons
(b) Increase in the effective nuclear charge
(c) Tendency of the outer's' electrons to penetrate close to the nucleus
(d) Size of the 4f-orbital.

84. Which of the following statements is incorrect?
(a) Actinoids exhibit a large number of oxidation states and are generally radioactive.
(b) Berkelium has half-filled 5f-orbital
(c) 4f-Orbital penetrates closer to the nucleus than 5f-orbital.
(d) Actinoids and lanthanoids have high melting and boiling points.

85. The group of elements with abnormally low values of IE_3 is
(a) La, Gd, Lu (b) Sm, Gd, Yb (c) Lu, Sm, La (d) Eu, Sm, Lu

86. Elements like Fe, Co and Ni acquire permanent magnetic moment when placed in a magnetic field. The property is referred to as:
(a) Ferrimagnetism (b) Anti-ferrimagnetism
(c) Diamagnetism (d) Ferromagnetism

87. The element that does not form an amalgam is
(a)Ag (b) Au (c) Fe (d) Zn

88. Which of the following statements about interstitial compounds is incorrect?
(a) They are hard and rigid. (b) They do not conduct electricity
(c) The malleability and ductility of the metal decreases. (d) The tenacity of the metal increases.

89. All of the following are interstitial compounds of transition elements, except
(a) Oxides (b) hydrides (c) borides (d) nitrides

90. The characteristic that does not contribute to catalytic activities of transition elements is
(a) Variable oxidation states

(b) Presence of free valencies on their surfaces
(c) the ability to absorb and re-emit energies over a wide range.
(d) high ionization energies.

BOTANY

SECTION – C

91. Monadelphous stamens are formed by the fusion of
(a) Anther lobes of all stamens (b) Anther lobes of two stamens
(c) Filaments of all stamens (d) None of these

92. Phyllode is the modification of --
(a) Stipule (b) Petiole (c) Root (d) Stem

93. Pappus is modification of-
(a) Bracts (b) Corolla (c) Calyx (d) All

94. A typical flower with superior ovary and other floral parts inferior is-
(a) Polygamous (b) Hypogynous (c) Perigynous (d) Epigynous

95. What does a dot on the top of a floral diagram represent?
(a) The fragrance of the flower (b) The position of the flower on the mother
(c) The color of the flower (d) The size of the flower's petals

96. Reticulate venation is a characteristic in
(a) Dicotyledonous leaves (b) Isobilateral leaves
(c) Monocotyledonous leaves (d) None of these

97. Vascular bundles in which cambium is present between xylem and phloem is called as
(a) Bi Collateral (b) Closed (c) Amphivasal (d) Open

98. What is the primary function of meristematic tissue in plants?
(a) Photosynthesis (b) Active cell division for growth
(c) Transport of nutrients (d) Providing mechanical support

99. Exarch xylem is present in
(a) Leaves (b) Stem (c) Both stem and roots (d) Roots

100. Match the following:

Type of flower	**Example**
(A) Zygomorphic	(1) Mustard
(B) Hypogynous	(2) Plum
(C) Perigynous	(3) Cassia
(D) Epigynous	(4) Cucumber

Select the correct option:

(a) (A)-(I), (B)-(II), (C)-(IV), (D)-(III) (b) (A)-(I), (B)-(II). (C)-(III), (D)-(IV)
(c) (A)-(IV), (B)-(I), (C)-(III), (D)-(II) (d) (A)-(III), (B)-(I), (C)-(II), (D)-(IV)

101. Family Fabaceae differs from Solanaceae and Liliaceae. With respect to the stamens, pick out the characteristics specific to family Fabaceae but not found in Solanaceae or Liliaceae.
(a) Polyadelphous and epipetalous stamens
(b) Monoadelphous and Monothecous anthers
(c) Epiphyllous and Dithecous anthers
(d) Diadelphous and Dithecous anthers

102. Given below are two statements: One is labelled as Assertion A and the other is labelled as Reason R:
Assertion A: A flower is defined as modified shoot wherein the shoot apical meristem changes to floral meristem
Reason R: Internode of the shoot gets condensed to produce different floral appendages laterally at successive node instead of leaves. In the light of the above statements, choose the correct answer from the options given below:
(a) Both A and R are true but R is NOT the correct explanation of A
(b) A is true but R is false
(c) A is false but R is true
(d) Both A and Rare true and R is the correct explanation of A

103. Which of the following statement is not correct?
(a) The rhizome is thick, prostrate and branched
(b) Rhizome is a condensed form of stem
(c) The apical bud in rhizome always remains above the ground
(d) The rhizome is aerial with no distinct nodes and internodes

104. The type of tissue commonly found in the fruit wall of nuts is
(a) Sclereid (b) Parenchyma (c) Collenchyma (d) Sclerenchyma

105. Match List-I with List-II:

	List-I	List-II
(a)	Imbricate	(i) Calotropis
(b)	Valvate	(ii) Cassia
(c)	Vexillary	(iii) Cotton
(d)	Twisted	(iv) Bean

Choose the correct answer from the options given below.
(a) (a)-(i), (b)-(ii), (c)-(iv), (d)-(ii) (b) (a)-(ii), (b)-(i), (c)-(iii), (d)-(iv)
(a) (a)-(ii), (b)-(i), (c)-(iv), (d)-(iii) (d) (a)-(ii), (b)-(iv), (c)-(iii), (d)-(i)
106. Pineapple (ananas) fruit develops from
(a) a multipistillate syncarpous flower
(b) a cluster of compactly borne flowers on a common axis
(c) a multilocular monocarpellary flower
(d) a unilocular polycarpellary flower

107. The aleurone layer in maize grain is especially rich in
(a) auxins (b) proteins (c) starch (d) lipids

108. What would be the number of chromosomes of the aleurone cells of a plant with 42 chromosomes in its root tip cells?
(a) 42 (b) 63 (c) 84 (d) 21

109. Stem modified to perform the function of a leaf and having many internodes is called as
(a) phylloclade (b) cladode (c) offset (d) phyllode.

110. A typical lower with superior ovary and other floral parts inferior is called:
(a) Polygamous (b) Hypogynous (c) Perigynous (d) Epigynous

111. The morphological nature of the edible part of coconut is
(a) Perisperm (b) Cotyledon (c) Endosperm (d) Pericarp

112. Root hairs develop from the region of
(a) Maturation (b) Elongation (c) Root cap (d) Meristematic activity

113. Coconut fruit is a
(a) Drupe (b) Berry (c) Nut (d) Capsule

114. When the margins of sepals or petals overlap one another without any particular direction, the condition is termed as:
(a) Vexillary (b) Imbricate (c) Twisted (d) Valvate

115. An aggregate fruit is one which develops from
(a) Muticarpellary apocarpous gynoecium (b) Multicarpellary syncarpous gynoecium
(c) Complete inflorescence (d) Multicarpellary superior ovary

116. In China rose the flower are
(a) Actinomorphic, epigynous with valvate aestivation
(b) Zygomorphic, hypogynous with imbricate aestivation
(c) Actinomorphic, hypogynous with twisted aestivation
(d) Zygomorphic, epigynous with twisted aestivation

117. Which one of the following organisms is correctly matched with its three characteristics?
(a) Pea: C3 pathway, Endospermic seed, Vexillary aestivation
(b) Tomato: Twisted aestivation, Axile placentation, Berry
(c) Onion: Bulb, Imbricate aestivation Axile placentation
(d) Maize: c3pathway, Closed vascular bundles, Scutellum

118. The transverse section of a plant part showed polyarch, radial and exarch xylem, with endodermis and pericycle. The plant part is identified as:
(a) Monocot root (b) Dicot root (c) Dicot stem (d) Monocot stem

119. Which meristem is found at the tips of roots and shoots?
(a) Apical meristem (b) Lateral meristem
(c) Intercalary meristem (d) Secondary meristem

120. Consider the following plant tissues:

(A) Axillary buds
(B) Fascicular vascular cambium
(C) Interfascicular cambium
(D) Cork cambium
(E) Intercalary meristem
Identify the lateral meristems among the above.
(a) (A), (C) and (D) only (b) (B), (C) and (D) only
(c) (A), (B), (C) and (E) only (d) (A), (B), (D) and (E) only

121. Given below are two statements: One is labelled as Assertion A and the other is labelled as Reason R:
Assertion A: Late wood has fewer xylary elements with narrow vessels
Reason R: Cambium is less active in winters. In the light of the above statements, choose the correct answer from the options given below:
(a) Both A and R are true but R is NOT the correct explanation of A
(b) A is true but R is false
(c) A is false but R is true
(d) Both A and Rare true and R is the correct explanation of A

122. Given below are two statements:
Statement I: Endarch and exarch are the terms often used for describing the position of secondary xylem in the plant body.
Statement II: Exarch condition is the most common feature of the root system. In the light of the above statements, choose the correct answer from the options given below:
(a) Both Statement I and Statement II are false
(b) Statement I is correct but Statement II is false
(c) Statement I is incorrect but Statement Il is true
(d) Both Statement I and Statement II are true

123. In a woody dicotyledonous tree, which of the following parts will mainly consist of primary tissues?
(a) all parts (b) stem and root
(c) flowers, fruits, and leaves (d) shoot tips and root tips

124. In dicot roots, the initiation of the lateral roots and the vascular cambium during the secondary growth takes place in:
(a) Pericycle (b) Endodermis (c) Conjunctive tissue (d) Epidermis

125. In a monocot leaf
(a) bulliform cells are absent from the epidermis
(b) veins from a network
(c) mesophyll is well-differentiated into palisade and spongy parenchyma
(d) mesophyll is not differentiated into palisade and spongy parenchyma

126. Which hormone is primarily responsible for cell elongation in plants?
(a) Abscisic acid (b) Ethylene (c) Gibberellin (d) Auxin

127. The Root hair is produced from ----------.

(a) Trichomes (b) Trichoblasts (c) Rhizodermis (d) Epidermis

128. Sunken stomata are found in
(a) hydrophytes (b) xerophytes (c) mesophytes (d) parasites

129. "Girdling Experiment was performed by Plant Physiologists to identify the plant tissue through which
(a) water is transported (b) food is transported
(c) for both water and food transportation (d) osmosis is observed

130. How many plants in the list given below have marginal placentation? Mustard, Gram, Tulip, Asparagus, Arhar, Sun hemp, Chilli, Colchicine, Onion, Moong, Pea, Tobacco. Lupin
(a) Four (b) Five (c) Six (d) Three

131. Given below are two statements: One is labelled as Assertion A and the other is Reason R.
Assertion A: A flower is defined as modified shoot wherein the shoot apical meristem changes to floral meristem
Reason R: Internode of the shoot gets condensed to produce different floral appendages laterally at successive node instead of leaves. In the light of the above statements, choose the correct answer from the options given below
(a) Both A and R are true but R is NOT the correct explanation of A
(b) A is true but R is false
(c) A is false but R is true
(d) Both A and Rare true and R is the correct explanation of A

132. What is the primary function of chlorophyll a in photosynthesis?
(a) It absorbs sunlight and converts it into chemical energy.
(b) It splits water molecules to release oxygen.
(c) It fixes carbon dioxide into sugars.
(d) It transports electrons from water to NADPH.

133. Dry indehiscent single-seeded fruit formed by the bi carpellary syncarpous inferior ovary is
(a) Cremocarp (b) Berry (c) Caryopsis (d) Cypsela

134. In which part of the plant does nitrogen fixation primarily occur?
(a) Leaves (b) Roots (c) Stems (d) Flowers

135. Read the following statements about the vascular bundles:
(a) In roots, xylem and phloem in a vascular bundle are arranged in an alternate manner along the different radii.
(b) Conjoint closed vascular bundles do not possess cambium
(c) in open vascular bundles, cambium is present in between xylem and phloem
(d) The vascular bundles of dicotyledonous stem possess endarch protoxylem
(e) in monocotyledonous root, usually there are more than six xylem bundles present
Choose the correct answer from the options given below:
(a) (a), (c), (d) and (e) only (b) (b), (c), (d) and (e) only
(c) (a), (b), (c) and (d) only (d) (a), (b) and (d) only

136. The alveoli of lungs are lined by:
(a) Squamous epithelium (b) Columnar epithelium
(c) Cuboidal epithelium (d) Simple epithelium

137. What is the shape of Haemoglobin-oxygen dissociation curve?
(a) Straight (b) Constant (c) Hyperbolic (d) Sigmoid

138. The pharynx opens into the larynx by a slit-like aperture called ----------.
(a) Bronchus (b) Epiglottis (c) Glottis (d) Trachea

139. Which of the following diseases can be found in workers working in a mill?
(a) Emphysema (b) Asthma
(c) Bronchitis (d) Occupational respiratory disorders

140. Which of the following is not the function of the respiratory system?
(a) Regulate blood pH. (b) Helps in gaseous exchange
(c) Contains receptors for the sense of smell. (d) Protection against blood loss.

141. Which of the following is NOT a function of the epithelial tissue?
(a) Secretion (b) Absorption (c) Movement (d) Protection

142. Lungs are made up of air-filled sacs, the alveoli. They do not collapse even after forceful expiration, because of
(a) Expiratory reserve volume (b) Residual volume
(c) Inspiratory reserve volume (d) Tidal volume

143. Lungs have a large number of narrow tubes called ----------.
(a) Bronchi (b) Alveoli (c) Bronchioles (d) Tracheae

144. The lungs are enclosed in a covering called ----------.
(a) Perichondrium (b) Pleural membrane
(c) Pericardium (d) Peritoneum

145. Which of the following statements is true about Trachea, in a respiratory system?
(a) It functions as passages of air to each alveolus
(b) It functions for sound production,
(c) It acts as a passage for air to bronchi
(d) It lowers the surface tension.

146. Which of the following is NOT a method by which CO_2, is transported in the blood?
(a) Attached to oxygen molecules
(b) Bound to hemoglobin as carbaminohemoglobin
(c) As bicarbonate ions in plasma
(d) Dissolved in plasma

147. Which one of the following is the correct statement for respiration in humans?
(a) Cigarette smoking may lead to inflammation of bronchi.

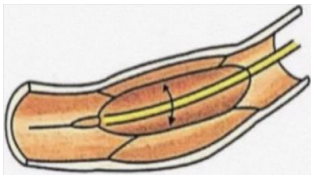
(b) Neural signals from pneumotaxic center in pons region of brain can increase the duration of inspiration
(c) About 90% of carbon dioxide is carried by Haemoglobin as carbaminohemoglobin.
(d) Workers in grinding and stone breaking industries may suffer from lung fibrosis.

148. Given below are few respiratory disorders. Identify occupational respiratory disorders among these.
(i) Coryza
(ii) SARS
(iii) Silicosis
(iv) Asbestosis
(v) Emphysema
(a) (i) and (ii) (b) (i) and (v) (c) (iii) and (iv) (d) (i), (ii) and (v)

149. Read the following four statements carefully.
(i) Asthma is a difficulty in breathing causing wheezing due to inflammation of bronchi and bronchioles
(ii) The part of the respiratory system starting with the external nostrils up to the terminal bronchioles constitutes the respiratory or exchange part of the respiratory system
(iii) During swallowing epiglottis can be covered by a thin elastic cartilaginous ilap called glottis to prevent the entry of food into the larynx.
(iv) Binding of oxygen with hemoglobin is primarily related to partial pressure of O_2.
Which of the above two statements are correct?
(a) (ii) and (iii) (b) (iii) and (iv) (c) (1) and (il) (d) (i) and (iv)

150. The role of mitosis is not merely to divide a cell into two daughter cells but to ensure genetic continuity from one cell generation to another cell generation. The mechanism ensuring genetic continuity is
(a) Formation of cells with new chromosomes
(b) Formation of two daughter cells
(c) Formation of two cells with identical DNA
(d) Halving the chromosome number between the two new cells

151. The given figure shows an angiogram of the coronary blood vessel. Which one of the following statements correctly describes, what is being done?



(a) It is a coronary artery which has a cancerous growth that is being removed
(b) It is a coronary artery which is blocked by a plaque and the same is being cracked
(c) It is a coronary vein in which the defective valves are being opened
(d) It is a coronary vein blocked by a parasite (blood fluke) that is being removed.

152. Read the following statements and select the correct ones.
(i) Nodal tissue is specialized cardiac musculature in human heart which has the ability to generate action potential due to an external stimuli
(ii) Position of SAN-right corner of right atrium
(iii) Position of AVN right corner of ventricle
(iv) AV bundle continues from AVN

(v) Purkinje fibres are modified cardiac muscle fibres that originate from the atrioventricular node and spread into the two ventricles

(a) (i) and (ii) (b) (i) and (iii) (c) (ii), (iv) and (v) (d) all of these

153. Coronary arteries supplies

(a) Oxygenated blood to lungs (b) Oxygenated blood to intestine

(c) blood to the heart muscle. (d) None of these

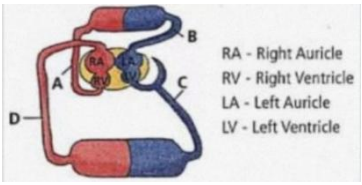
154. In the above diagram, which blood vessel represents vena cava?

(a) C

(b) D

(c) A

(d) B



155. Rate of heart beat is determined by

(a) Purkinje fibres (b) Papillary muscles

(c) SA node (d) AV node

156. What does binomial nomenclature refer to?

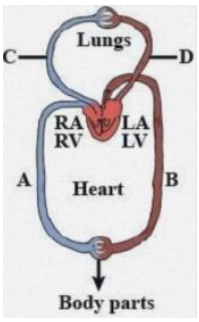
(a) The scientific naming of organisms using two names

(b) A naming system with three components

(c) The use of common names in scientific classification

(d) Classification based on genetic information only

157. What is the nature of blood passing through blood vessels A, B, C and D respectively?



(a) A-Deoxygenated, B-Oxygenated, C-Deoxygenated, D-Oxygenated

(b) A-Deoxygenated, B- Deoxygenated, C-Oxygenated, D-Oxygenated

(c) A-Oxygenated, B-Oxygenated, C-Deoxygenated, D-Deoxygenated

(d) A-Oxygenated, B-Deoxygenated, C-Oxygenated, D-Deoxygenated

158. Which of the following sequences is truly a systemic circulation pathway?

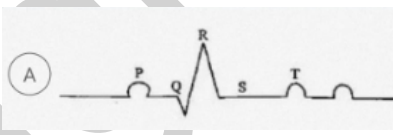
(a) Right ventricle → Pulmonary aorta → Tissues → Pulmonary veins → Left auricle

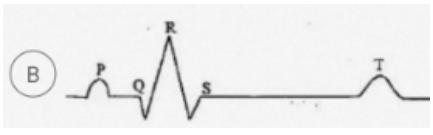
(b) Right auricle → Left ventricle → Aorta → Tissues → Veins → Right auricle

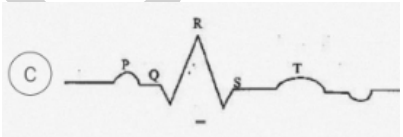
(c) Left auricle → Left ventricle → Pulmonary → aorta → Tissues → Right auricle

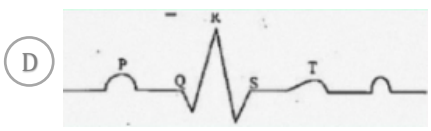
(d) Left auricle → Left ventricle → Aorta→ Arteries → Tissues → Veins → Right atrium

159. Which of the following is the diagrammatic representation of standard electrocardiogram (ECG)?









160. What would be the cardiac output of a person having 72 heart beats per minute and a stroke volume of 50 ml?
(a) 360 ml (b) 7200 ml (c) 5000 ml (d) 3600 ml

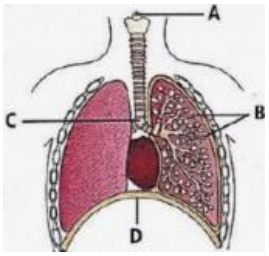
161. How many double circulations are normally completed by the human heart, in one minute?
(a) eight (b) sixteen (c) seventy two (d) thirty six

162. Another term for heart attack is
(a) Coronary thrombosis (b) Myocardial infarction
(c) Cardiac arrest (d) Ischemia

163. Coronary heart disease is due to
(a) insufficient blood supply to the heart muscles (b) Weakening of the heart valves
(c) Inflammation of pericardium (d) Streptococci bacteria

164. The course of blood from the heart to the lungs and back to the heart is called
(a) Systemic circulation (b) Double circulation
(c) Pulmonary circulation (d) Single circulation

165. The given figure shows the diagrammatic view of human respiratory system. Identify A, B, C and D



(a) A-Epiglottis, B-Alveoli, C-Bronchus, D-Diaphragm
(b) A-Epiglottis, B-Alveoli, C-Bronchioles, D-Diaphragm
(c) A-Soundbox, B-Alveoli, C-Brounchus, D-Diaphragm
(d) A-Larynx, B-Alveoli, C-Brounchioles, D-Diaphragm

166. Lungs are enclosed in
(a) perichondrium (b) pericardium
(c) pleural membrane (d) peritoneum

167. Which of the following statements are correct?
A. Basophils are most abundant cells of the total WBCS
B. Basophils secrete histamine, serotonin, and heparin
C. Basophils are involved in inflammatory response
D. Basophils have kidney shaped nucleus
E. Basophils are agranulocytes
Choose the correct answer from the options given below:
(a) C and E only (b) B and C only (c) A and B only (d) D and E only

168. Match List-I with List-II.

	List-I (ECG)	**List-II (Electrical activity of heart)**
(A)	P-wave	(i) Depolarisation of ventricles
(B)	QRS complex	(II) End of systole
(C)	T wave	(III) Depolarisation of atria
(D)	End of T wave	(IV) Repolarization of ventricles

Choose the correct answer from the options given below:
(a) A-(IV), B-(I), C-(III), D-(II) (b) A-(I), B-(IV), C-(III), D-(II)
(c) A-(IV), B-(III), C-(I), D-(II) (d) A-(III), B-(I), C-(IV), D-(II)

169. Match List-I with List-II.

	List-I	List-II
(A)	P-wave	(I) Beginning of systole
(B)	Q-wave	(II) Repolarization of ventricles
(C)	QRS complex	(III) Depolarisation of atria
(D)	T-wave	(IV) Depolarization of ventricles

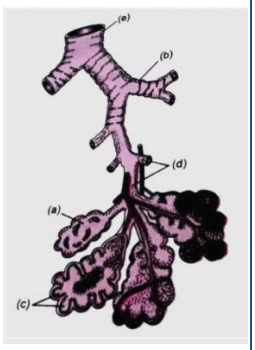
Choose the correct answer from the options given below:
(a) A-(IV), B-(III), C-(II), D-(I) (b) A-(II), B-(IV), C-(I), D-(III)
(c) A-(I), B-(II), C-(III), D-(IV) (d) A-(III), B-(I), C-(IV), D-(II)

170. Match List-I with List-II.

	List-I	List-II
(A)	Eosinophils	(I) 6-8%
(B)	Lymphocytes	(II) 2-3%
(C)	Neutrophils	(III) 20-25%
(D)	Monocytes	(IV) 60-65%

Choose the correct answer from the options given below:
(a) A-(IV), B-(I), C-(II), D-(III) (b) A-(IV), B-(I), C-(III), D-(II)
(c) A-(II), B-(III), C-(IV), D-(I) (d) A-(II), B-(III), C-(I), D-(IV)

171. Study the given figure of respiratory passage carefully and identify the parts labelled as A, B, C, D and E.



(a) (A) Alveolar sac (B) Secondary bronchus (C) Alveoli (D) Bronchioles (E) Trachea
(b) (A) Alveoli (B) Secondary bronchus (C) Alveolar sac (D) Trachea (E) Bronchioles
(c) (A) Alveolar sac (B) Tertiary bronchus (C) Alveoli (D) Trachea (E) Bronchioles
(d) (A) Alveoli (B) Tertiary bronchus (C) Alveolar sac (D) Bronchioles (E) Trachea

172. Rate of breathing is controlled mainly by .....
(a) CO_2 level in blood (b) pH in blood
(c) O_2 level in blood (d) O_2 level and pH in blood

173. Complete the following sentence by selecting the correct option.
The breathing rhythm is generated in the ..... (i) ..... and is influenced by variation in levels of ..... (ii)..... in the blood.

(a)

(i)	(ii)
medulla	CO_2

(b)

(i)	(ii)
medulla	O_2

(c)

(i)	(ii)
frontal lobe	CO_2 and O_2

(d)

(i)	(ii)
frontal lobe	CO_2

174. What is the role of the diaphragm in breathing?
(a) It contracts to increase thoracic volume during inspiration
(b) It contracts to decrease thoracic volume during inspiration.
(c) It relaxes to increase thoracic volume during expiration.
(d) It has no role in the process of breathing.

175. Systolic pressure is higher than diastolic pressure due to
(a) Volume of blood in the heart is greater during systole
(b) Arteries contract during systole
(c) Blood vessels offer resistance to flowing blood during systole
(d) Blood so forced into arteries during systole.

176. Pace maker influences-
(a) Contraction of heart muscles (b) Flow of blood in heat
(c) Rate of heart beat (d) Formation of nerve impulse

177. The blood leaving the lungs is richer than the blood entering the lung in
(a) Oxygen (b) CO_2 (c) Hydrogen (d) Moisture

178. Which one of the following is a matching pair?
(a) Lub-Sharp closure of AV valves at the beginning of ventricular systole
(b) Dup-Sudden opening of semilunar valves at the beginning of ventricular diastole
(c) Pulsation of the radial artery-Valves in the blood vessels.
(d) Initiation of the heart beat-Purkinje fibres

179. What is the primary site for the exchange of gases in the human body?
(a) Heart (b) Alveoli (c) Trachea (d) Bronchi

180. Which one of the following statements is correct regarding blood pressure?
(a) 130/90 mm Hg is considered high and requires treatment.
(b) 100/55 mm Hg is considered an ideal blood pressure.
(c) 105/50 mm Hg makes one very active.
(d) 190/110 mm Hg may harm vital organs like brain and kidney.