Monthly Progressive Test

Class: X

Subject: PCMB

Academic Excellence Programme TECHNO ACE

Test Booklet No.: MPT08 **Test Date:** 20122024

Time: 120 mins **Full Marks: 200**

Important Instructions :

1. The Test is of 120 mins duration and the Test Booklet contains 100 multiple choice questions of single correct option only. There are four sections with four subjects. You have to attempt all 100 questions (Candidates are advised to read all 100 questions). Questions 1 to 25 contain Physics, Questions 26 to 50 contain Chemistry, Questions 51 to 75 contain Mathematics, Questions 76 to 100 contain Biology.
2. Each question carries 2 marks. For each correct response, the candidate will get 2 marks. There is no negative mark for wrong response. The maximum mark is 200.
3. Use Blue / Black Ball point Pen only for writing particulars marking responses on Answer Sheet.
4. Rough work is to be done in the space provided for this purpose in the Test Booklet only.
5. On completion of the test, the candidate must handover the Answer Sheet to the invigilator before leaving the Room / Hall. The candidates are allowed to take away this Test Booklet with them.
6. The CODE for this Booklet is Off Line MPT0820122024.
7. The candidates should ensure that the Answer Sheet is not folded. Do not make any stray marks on the Answer Sheet. Do not write your UID No. anywhere else except in the specified space. Use of white fluid for correction is NOT permissible on the Answer Sheet. **Do not scribble or write on or beyond discrete bars of OMR sheet at both sides**.
8. Each candidate must show on-demand his/her Registration document to the Invigilator.
9. No candidate, without special permission of the Centre Superintendent or Invigilator, would leave his/her seat.
10. Use of Electronic Calculator/Cellphone is prohibited.
11. The candidates are governed by all Rules and Regulations of the examination with regard to their conduct in the Examination Hall. All cases of unfair means will be dealt with as per Rules and Regulations of this examination.
12. No part of the Test Booklet and Answer Sheet shall be detached under any circumstances.
13. There is no scope for altering response mark in Answer Sheet.

Space For Rough Works

Physics

1. 1 diopter of power of lens has focal length
   Ⓐ 1 m Ⓑ 0.5 m Ⓒ 0.2 m Ⓓ 0.4 m
2. The power of a concave lens of focal length 2m is
   Ⓐ 1 D Ⓑ –0.5 D Ⓒ 1.5 D Ⓓ –1.5 D
3. Which of the following materials cannot be used to make a lens
   Ⓐ glass Ⓑ water Ⓒ plastic Ⓓ clay
4. No matter how far we stand from a mirror, our image appears erect. The mirror is likely to
   Ⓐ plane Ⓑ concave Ⓒ convex Ⓓ either plane or convex
5. The focal length of a convex mirror whose radius of curvature is 32 cm
   Ⓐ 10 cm Ⓑ 12 cm Ⓒ 16 cm Ⓓ 18 cm
6. Light enters from air to glass having refractive index 1.5, then the speed of light in glass is (speed of light in vacuum 3×10^8 m/s)
   Ⓐ 2×10^8 m/s Ⓑ 2.25×10^8 m/s Ⓒ 2.5×10^8 m/s Ⓓ 1.25×10^8 m/s
7. A mirror which can give an erect and enlarged image of an object
   Ⓐ convex Ⓑ concave Ⓒ plane Ⓓ either plane or convex
8. The refractive index of kerosene is 1.44, refractive index of turpentine is 1.47 whereas refractive index of water is 1.33. In which of these light travels fastest?
   Ⓐ Kerosene Ⓑ turpentine Ⓒ water Ⓓ none of these
9. The human eye forms the image of an object at its:
   Ⓐ cornea Ⓑ iris Ⓒ pupil Ⓓ retina
10. A person needs a lens of power -5D for correcting his distant vision. The focal length of the lens is required for correcting of his distant vision.
    Ⓐ –20 cm Ⓑ 15 cm Ⓒ 10 cm Ⓓ +20 cm
11. For correcting his near vision, a person needs a lens of power +1.5 D . The focal length of the lens is required
    Ⓐ +60 cm Ⓑ +66.7 cm Ⓒ +25 cm Ⓓ +44 cm
12. The far point of a myopic person is 100 cm. The power of lens required to correct the problem is
    Ⓐ 2 D Ⓑ –1.5 D Ⓒ –1 D Ⓓ + 1D
13. The human eye can focus objects at different distances by adjusting the focal length of the eye-lens. This is due to:
    Ⓐ presbyopia Ⓑ myopia Ⓒ hypemetropia Ⓓ accommodation
14. The near point of normal eye is
    Ⓐ 25 cm Ⓑ 20 cm Ⓒ 15 cm Ⓓ 30 cm
15. The combined focal length of +6D and –4D lenses when they are in contact is
    Ⓐ 25 cm Ⓑ 75 cm Ⓒ 50 cm Ⓓ 10 cm
16. An electric motor takes 5A from a 220 volt line. The power of motor is
    Ⓐ 1100 watt Ⓑ 1000 watt Ⓒ 800 watt Ⓓ 550 watt
17. The heat generated when 10 coulomb charge flows through 50 volt potential difference.
    Ⓐ 250 J Ⓑ 300 J Ⓒ 500 J Ⓓ 400 J
18. Which one of the following terms does not represent electrical power in the circuit?
    Ⓐ V^2/R Ⓑ VI Ⓒ I^2R Ⓓ IR^2

19. The voltmeter is always connected in parallel across the two points (in the circuit) where the potential difference is to be measured

Ⓐ true Ⓑ false Ⓒ sometimes true Ⓓ we cannot say

20. An ideal ammeter has a resistance of

Ⓐ 1 ohm Ⓑ 2 ohm Ⓒ 3 ohm Ⓓ zero ohm

■ **Assertion Reason based Questions (21–22):**

Directions: Read the following questions and choose any one of the following four responses.

A: Assertion is true and reason is true, reason is correct explanation of assertion.

B: Assertion is true and reason is true, reason is not correct explanation of assertion.

C: Assertion is true and reason is false.

D: Assertion is false and reason is true.

21. **Assertion:** A magnetic field is produced around a straight conductor carrying current.

Reason: Direction of the above mentioned magnetic field is determined by using Maxwell's right hand thumb rule.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

22. **Assertion:** A force is experienced by a current carrying straight conductor placed in a magnetic field which is perpendicular to it.

Reason: In the above case, the direction of can not be determined by Fleming's left hand rule.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

■ **Case Based Questions(23–25):**

We can determine the north and south poles of a current carrying solenoid by using a bar magnet . This can be done as follows: We bring the north pole of a bar magnet near both the ends of a freely suspended current carrying solenoid. The end of solenoid which will be repelled by the north pole of the bar magnet and move away from it, will be of its north pole. And the end of which will be attracted by the north pole of the bar magnet and moves towards it, will be its south pole.

23. If we cut a bar magnet along the axis of bar magnet, then cut piece has

Ⓐ only north pole Ⓑ only south pole

Ⓒ both poles will be present Ⓓ no magnetic property

24. If we increase the current in solenoid, the magnetic field of solenoid

Ⓐ increases Ⓑ decreases Ⓒ remains same Ⓓ none of these

25. If we insert a soft iron in the air core of current carrying solenoid, then soft iron gets

Ⓐ magnetised Ⓑ non conducting property

Ⓒ heated up Ⓓ none of these

Chemistry

26. What are the products obtained by alcoholic fermentation?

Ⓐ Ethanol + Lactic acid + Energy Ⓑ Lactic acid + Carbondioxide + Energy

Ⓒ Ethanol + Water + Energy Ⓓ Ethanol + Carbondioxide + Energy

27. The compound which is used as an oxidising agent in many chemical industries is:

Ⓐ bleaching powder Ⓑ washing powder Ⓒ baking powder Ⓓ quick lime

28. Which component is being reduced in the given reaction?

$$CuO + H_2 \xrightarrow{\Delta} Cu + H_2O$$

Ⓐ H_2O Ⓑ Cu Ⓒ H_2 Ⓓ CuO

29. The number of carbon atoms surrounding each carbon atom in a diamond are:

Ⓐ 3 Ⓑ 4 Ⓒ 2 Ⓓ 5

30. Which of the following is the major constituent of the liquefied petroleum gas?

Ⓐ methane Ⓑ propane Ⓒ ethane Ⓓ butane

31. The number of non-cyclic structural isomers of C_5H_{10} is:

Ⓐ 3 Ⓑ 4 Ⓒ 5 Ⓓ 10

32. The reagent(s) used to distinguish between ethylene and acetylene is/are:

Ⓐ Alkaline $KMnO_4$ Ⓑ Ammoniacal cuprous chloride

Ⓒ Tollen's reagent Ⓓ both Ⓑ and Ⓒ

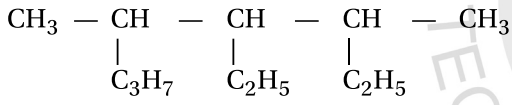
33. How many number of carbon atoms are joined in a spherical molecule of Buckminsterfullerene?

Ⓐ 30 Ⓑ 90 Ⓒ 60 Ⓓ 2

34. A compound on hydrogenation yields ethane by consuming 2 molecules hydrogen. The same compound on being treated with excess of liquid bromine gives:

Ⓐ CH_2Br_2 Ⓑ $C_2H_4Br_2$ Ⓒ $C_2H_2Br_4$ Ⓓ C_2H_5Br

35. The I.U.P.A.C name of:



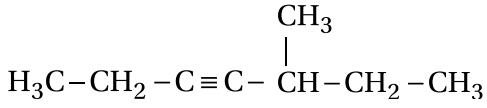
Ⓐ 3, 4 – dimethyl – 4 – ethyl octane Ⓑ 4 – ethyl – 3, 5 – dimethyl – octane

Ⓒ 2, 3 – dimethyl – 4 – propylpentane Ⓓ 3, 4 – dimethyl – 2 – propylpentane

36. Which among the following pairs belonging to the same homologous series

Ⓐ C_3H_4, C_5H_{10} Ⓑ C_2H_6, C_4H_{10} Ⓒ C_2H_4, C_4H_8 Ⓓ C_4H_8, C_5H_{10}

37. The I.U.P.A.C name of the following compound is:



Ⓐ 2 – ethyl – 3 – hexyne Ⓑ 3 – methyl – 4 – heptyne

Ⓒ 5 – methyl – 3 – heptyne Ⓓ 5 – ethyl – 3 – hexyne

38. The hydrocarbon used for welding purpose is:

Ⓐ ethane Ⓑ ethyne Ⓒ ethene Ⓓ benzene

■ Case Study Based Question (39–40):

In thermal power plants, fossil fuels are burnt to produce heat which in turn converted into electrical energy. But, the power plants which convert the kinetic energy of flowing water into electricity are called hydropower plants.

39. The source of fuel in thermal power plant is:

Ⓐ petroleum Ⓑ CNG Ⓒ Coal Ⓓ LPG

40. Burning of fossil fuels causes global warming due to production of

Ⓐ Natural gas Ⓑ Carbondioxide Ⓒ Nitrogen Ⓓ Oxygen

■ **Assertion Reason Type Question (41–43):**

Read the two statements carefully and select the correct option given below.

A: Assertion and Reason both are correct and Reason is the correct explanation of Assertion

B: Assertion and Reason both are correct and Reason is not the correct explanation of Assertion

C: Assertion is correct but Reason is wrong

D: Assertion is wrong but Reason is correct

41. **Assertion:** Detergents are better cleansing agent them soaps.

Reason: It is because they work with soft water.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

42. **Assertion:** Following are the members of a homologous series: HCOOH, CH_3COOH, $CH_3CH_2.COOH$

Reason: A series of compounds with same functional group but differing by $-CH_2$ unit is called a homologous series.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

43. **Assertion:** Copper is used to make hot water tanks and not steel (an alloy of iron).

Reason: Copper does not react with hot water.

Ⓐ A Ⓑ B Ⓒ C Ⓓ D

44. Arrange the metals in the correct order of their decreasing reactivity: K, Cu, Zn, Fe

Ⓐ K > Fe > Zn > Cu Ⓑ K > Zn > Fe > Cu Ⓒ Zn > Cu > Fe > K Ⓓ K > Cu > Zn > Fe

45. Silver articles become black on prolonged exposure to air. This is due to the formation of:

Ⓐ Ag_3N Ⓑ Ag_2S Ⓒ Ag_2O Ⓓ Ag_2S and Ag_3N

46. The chemical formula of plaster of paris is:

Ⓐ $CaSO_4 . 2H_2O$ Ⓑ $CaSO_4 . H_2O$ Ⓒ $CaSO_4 . \frac{1}{2}H_2O$ Ⓓ $2CaSO_4 . H_2O$

47. Which of the following salts do not contain water of crystallisation?

Ⓐ Blue vitriol Ⓑ Baking soda Ⓒ Washing soda Ⓓ Gypsum

48. Which of the following compounds is alkaline in an aqueous medium?

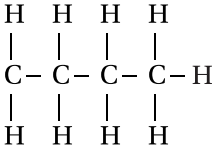
Ⓐ Na_2CO_3 Ⓑ NaCl Ⓒ H_2CO_3 Ⓓ $CuSO_4$

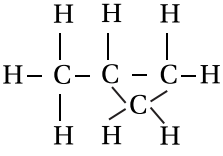
49. $2Pb(NO_3)_2 \xrightarrow{\Delta} 2PbO + nA + H_2$

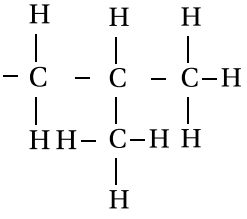
What is nA in the given reaction?

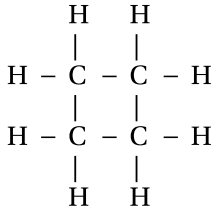
Ⓐ 4NO Ⓑ $4NO_2$ Ⓒ $2PbNO_2$ Ⓓ NO_2

50. Which of the following are correct structural isomers of butane?

(i) 

(ii) 

(ii) 

(iv) 

Ⓐ (i) and (iii) Ⓑ (ii) and (iv) Ⓒ (i) and (ii) Ⓓ (iii) and (iv)

Mathematics

51. If x = 5 is a solution of the quadratic equation $2x^2 + (k - 1)x + 10 = 0$, then the value of k is

Ⓐ 11 Ⓑ –11 Ⓒ 13 Ⓓ –13

52. Two positive integers m and n are expressed as $m = p^5 q^2$ and $n = p^3 q^4$ where p and q are prime numbers. The LCM of m and n is

Ⓐ $p^3 q^6$ Ⓑ $p^3 q^2$ Ⓒ $p^5 q^4$ Ⓓ $p^5 q^2 + p^2 q^4$

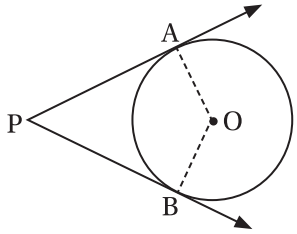
53. The pair of equations x = 3a and y =2b (a and b are not equal to zero) graphically represent straight lines which are

Ⓐ coincident Ⓑ parallel Ⓒ intersecting at (3a, 2b) Ⓓ intersecting at (2b, 3a)

54. If k – 7, 2k – 2 and 2k + 6 are three consecutive terms of an A.P., then the value of k is

Ⓐ 3 Ⓑ 7 Ⓒ 5 Ⓓ 1

55. In the given figure, PA and PB are two tangents drawn on the circle with centre O and radius 5 cm. If angle APB = 60 degree, then the length of PA is



Ⓐ $\frac{-5}{\sqrt{3}}$ cm Ⓑ $5\sqrt{3}$ cm

Ⓒ $\frac{10}{\sqrt{3}}$ cm Ⓓ 10 cm

56. All queens, jacks and aces are removed from a pack of 52 playing cards. The remaining cards are well-shuffled and one card is picked up at random from it. The probability of that card to be a king is

Ⓐ $\frac{1}{10}$ Ⓑ $\frac{1}{13}$ Ⓒ $\frac{3}{13}$ Ⓓ $\frac{3}{10}$

57. PQ is the diameter of a circle with centre O (2, –4). If the coordinates of the point P are (–4, 6), then the coordinates of the point Q will be

Ⓐ (–3, 4.5) Ⓑ (4, –0.5) Ⓒ (–1, 0.5) Ⓓ (8, –14)

58. $\frac{1-\cos A}{\sin A}$ is equal to

Ⓐ $\frac{\sin A}{1-\cos A}$ Ⓑ $\frac{\sin A}{1+\cos A}$ Ⓒ $\frac{\cos A}{1-\cos A}$ Ⓓ $\frac{\cos A}{1+\cos A}$

59. A cap is cylindrical in shape, surmounted by a conical top. If the volume of the cylindrical part is equal to that of the conical part, then the ratio of the height of the cylindrical part to the height of the conical part is

Ⓐ 1 : 2 Ⓑ 1 : 3 Ⓒ 2 : 1 Ⓓ 3 : 1

60. The 8th term from the end of the AP – 8, – 3, 2.....62 is

Ⓐ 37 Ⓑ 33 Ⓒ 27 Ⓓ 30

61. The diagonals of a rhombus ABCD intersect at O. Taking O as the centre, an arc of radius 6 cm is drawn intersecting OA and OD at E and F respectively. The area of the sector OEF is

Ⓐ 9π cm^2 Ⓑ 3π cm^2 Ⓒ 12π cm^2 Ⓓ 18π cm^2

62. If $\Delta ABC \sim \Delta DEF$ and AB = 3 cm, DE = 4 cm, BC = 6 cm, then EF is

Ⓐ 8 cm Ⓑ 6 cm Ⓒ 4.5 cm Ⓓ 5 cm

63. How many points will the graph of $x^2 + 2x + 1$ cut the x-axis?

Ⓐ 3 Ⓑ 1 Ⓒ 2 Ⓓ 0

64. For the following distribution

C.I	0–10	10–20	20–30	30–40	40–50
f	20	30	24	40	18

the sum of lower limits of the modal class and the median class is

Ⓐ 20 Ⓑ 30 Ⓒ 40 Ⓓ 50

65. A pole 10 m long rests slantly against a vertical wall AB making an angle 30° with the horizontal (ground). Find how far the foot of the pole is from the wall (in metres).

Ⓐ 15 Ⓑ 10 Ⓒ $\frac{10}{\sqrt{3}}$ Ⓓ $5\sqrt{3}$

■ **Case Study Based Questions (66–68):**

Sanjeev a student of class X, goes to Yamuna river with his friends. When he saw a boat in the river, then he wants to sit in boat. So his all friends are ready to sit with him. In this order, Sanjeev is sitting on a boat which upstream at a speed of 8 km/h and downstream at a speed of 16 km/h. When Sanjeev is in the boat, some questions are arises in his mind.

Based on the above information, answer the following questions.

66. The speed of the boat in still water is

Ⓐ 8 km/h Ⓑ 10 km/h Ⓒ 12 km/h Ⓓ 14 km/h

67. The speed of stream is

Ⓐ 3 km/h Ⓑ 4 km/h Ⓒ 6 km/h Ⓓ 5 km/h

68. The average speed of stream and boat in still water is

Ⓐ 7 km/h Ⓑ 8 km/h Ⓒ 12 km/h Ⓓ 5 km/h

■ **Assertion Reason based Questions (69–70):**

Directions: In the following questions, a statement of assertion (A) is followed by a statement of Reason (R). Choose the correct answer out of the following choices.

(a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).

(b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).

(c) Assertion (A) is true but reason (R) is false.

(d) Assertion (A) is false but reason (R) is true.

69. **Assertion(A) :** The H.C.F. of two numbers is 16 and their product is 3072. Then their L.C.M. = 162.

Reason(R) : If a and b are two positive integers, then H.C.F. × L.C.M. = a × b.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

70. **Assertion(A) :** If $\sin\theta = \frac{1}{2}$ and θ is acute angle, then $(3\cos\theta - 4\cos^3\theta)$ is equal to 0.

Reason(R) : As $\sin\theta = \frac{1}{2}$ and θ is acute, so θ must be 60°.

Ⓐ a Ⓑ b Ⓒ c Ⓓ d

71. The pair of equations $3x - 5y = 7$ and $-6x + 10y = 7$ have

Ⓐ a unique solution Ⓑ infinitely many solutions

Ⓒ no solution Ⓓ two solutions

72. The equation $2x^2 + kx + 3 = 0$ has two equal roots, then the value of k is

Ⓐ $\pm\sqrt{6}$ Ⓑ ± 4 Ⓒ $\pm 3\sqrt{2}$ Ⓓ $\pm 2\sqrt{6}$

73. If in two triangles ABC and DEF, $\frac{AB}{DF} = \frac{BC}{FE} = \frac{CA}{ED}$, then

Ⓐ $\Delta ABC \sim \Delta DEF$ Ⓑ $\Delta ABC \sim \Delta EDF$ Ⓒ $\Delta ABC \sim \Delta EFD$ Ⓓ $\Delta ABC \sim \Delta DFE$

74. If $\sin\theta + \sin^2\theta = 1$, then $\cos^2\theta + \cos^4\theta =$

Ⓐ –1 Ⓑ 0 Ⓒ 1 Ⓓ 2

75. The points (–5, 1), (1, p) and (4, –2) are collinear if the value of p is

Ⓐ 3 Ⓑ 2 Ⓒ 1 Ⓓ –1

Biology

76. In binary fission, a unicellular organism_____

Ⓐ Divides into two equal daughter cells Ⓑ Forms a large parent cell and a small daughter cell

Ⓒ Divides into two unequal daughter cells Ⓓ All

77. Vas deferens is blocked in _____

Ⓐ Vasectomy Ⓑ Tubectomy Ⓒ IUDs Ⓓ Implants

78. In pea, white flower colour is recessive. What is the dominant colour?

Ⓐ Red Ⓑ Orange Ⓒ Purple Ⓓ Green

79. Genotype of roundness and yellow colour of seeds in pea plants can be represented as:

Ⓐ RRYY Ⓑ RrYy Ⓒ rryy Ⓓ Both A and B

80. Olfactoreceptors help to respond to

Ⓐ Sound Ⓑ Touch Ⓒ Smell Ⓓ Taste

■ **Assertion Reason based Questions (81- 84):**

Directions: Read the following questions and choose any one of the following four responses.

A: Assertion and Reason both are correct and Reason is the correct explanation of Assertion.

B: Assertion and Reason both are correct but Reason is not the correct explanation of Assertion.

C: Assertion is correct but Reason is wrong.

D: Assertion is wrong but Reason is correct.

81. **Assertion:** A person whose one kidney is impaired, does not need haemodialysis.
Reason: One kidney is sufficient to purify blood and produce urine.

82. **Assertion:** Platelets are an important constituent of blood.
Reason: Platelets prevent excess loss of blood through an injury, by helping to form a clot.

83. **Assertion:** The hypothalamus works as the thermostat of the body.
Reason: The hypothalamus is a part of the hind brain.

84. **Assertion:** Triple fusion occurs in flowering plants.
Reason: Triple fusion results in the formation of a zygote.

■ **Case Based Question (85-87):**

Study the food chain given below and answer the following questions:

Sun ⟶ Plant ⟶ Deer ⟶ Tiger

85. If plants have 30,000 J of energy available from the sun, what will be the amount of energy available to the deer?
Ⓐ 300 J Ⓑ 30 J Ⓒ 3 J Ⓓ 0.3 J

86. The transfer of energy is based on the _____ Law of Lindeman.
Ⓐ 10% Ⓑ 100% Ⓒ 1000% Ⓓ 10,000%

87. Plants can trap only _____ of the incident solar radiation.
Ⓐ 100% Ⓑ 10% Ⓒ 1% Ⓓ 0.1%

■ **Case Based Question (88-90):**

Read the passage given below and answer the following questions:

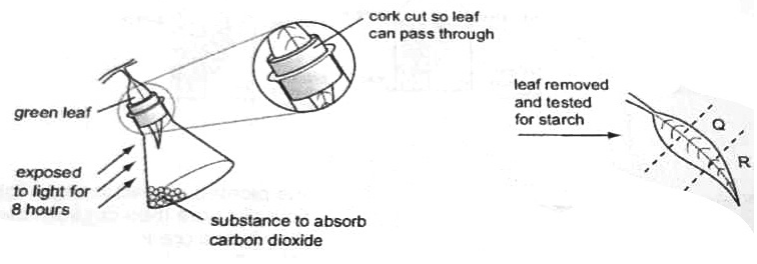
Abortion is a means of termination of unwanted pregnancy. However, in our country, this technique has been misused to selectively terminate the female foetus. In order to prevent female foeticide, the government has banned pre natal sex determination.

88. MTP is a method of _____ contraception.
Ⓐ Barrier Ⓑ Chemical Ⓒ Hormonal Ⓓ None

89. By which technique can the sex of the foetus be determined before birth?
Ⓐ Amniocentesis Ⓑ Ultrasonography
Ⓒ Testing urine of pregnant mother Ⓓ All

90. Which of the following methods of contraception does not involve foeticide?
Ⓐ Using mechanical barriers, like cervical caps Ⓑ Vasectomy and Tubectomy
Ⓒ Morning – After pills Ⓓ All

91. A plant is kept in dark for two days. A leaf is used in an experiment to investigate the effect of two factors on photosynthesis, as shown in the diagram.



What are the colours of Q and R, when the leaf is tested for starch, using iodine solution?

	Q	R
Ⓐ	Blue/black	Brown
Ⓑ	Brown	Brown
Ⓒ	Blue/black	Blue/black
Ⓓ	Brown	Blue/black

92. Which of the following is not formed in anaerobic respiration?

Ⓐ Ethyl alcohol Ⓑ CO_2 Ⓒ H_2O Ⓓ ATP

93. Choose the incorrect statement:

Ⓐ Pulmonary veins carry deoxygenated blood

Ⓑ Pulmonary artery carries blood away from the heart

Ⓒ The base of the pulmonary artery is guarded by semi lunar valves.

Ⓓ The pulmonary veins enter the left atrium of the heart

94. The dialysing fluid has the same composition as blood plasma, except that it has

Ⓐ No water Ⓑ No glucose

Ⓒ No urea Ⓓ No electrolytes, like Na+

95. Name a gland which secretes digestive enzymes as well as hormones.

Ⓐ Pancreas Ⓑ Thyroid Ⓒ Pituitary Ⓓ Liver

96. Choose the correct set of description about plant roots.

Ⓐ Negatively geotropic and negatively hydrotropic

Ⓑ Positively phototropic and negatively geotropic

Ⓒ Positively geotropic and positively hydrotropic

Ⓓ Roots do not show tropic movements.

97. Select the odd one out.

Ⓐ Gonorrhoea Ⓑ Syphilis Ⓒ Genital warts Ⓓ HIV

98. When a tall pea plant bearing purple flowers is crossed with a dwarf pea plant bearing white flowers, the genotype of the F1 progeny would be—

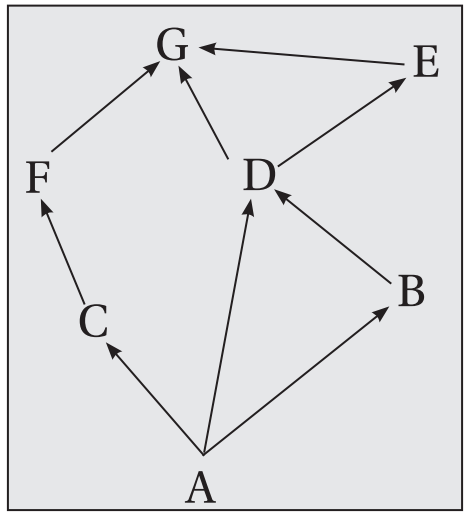
Ⓐ TTPP Ⓑ TtPP Ⓒ TtPp Ⓓ ttpp

99. Which trophic level is incorrectly defined?

Ⓐ Carnivores – secondary or tertiary consumers Ⓑ Omnivores – moulds and mushrooms

Ⓒ Herbivores – primary consumers Ⓓ Decomposers – microbial heterotrophs

100. In the given food web, which two organisms are competing for food?



Ⓐ A and B Ⓑ D and F Ⓒ A and C Ⓓ B and D