myclassroom

For students currently studying in class 12th

Exam Id – 1236

Time : 2 Hrs

Max. Marks : 320

IMPORTANT INSTRUCTIONS

Note: All Questions are compulsory:

Section-1: It contains 20 questions in total.

Question No. 1 to 20 belongs to Physics.

Section-2: It contains 20 questions in total.

Question No. 21 to 40 belongs to Chemistry.

Section-3: It contains 20 questions in total.

Question No. 41 to 60 belongs to Mathematics.

Section-4: It contains 20 questions in total.

Question No. 61 to 80 belongs to Mental Ability.

Marking Scheme: Each question carries 4 marks. **For each correct response, the candidate will get 4 marks. There is no negative marking for incorrect response or unattempted questions.**

1. A police jeep is chasing with velocity of 45 km/h. A thief in another jeep moving with velocity 153 km/h. Police fires a bullet with muzzle velocity of 180 m/s. The velocity it will strike the car of the thief is

   (a) 150 m/s   (b) 27 m/s   (c) 450 m/s   (d) 250 m/s

2. A boy of 50 kg is in a lift moving down with an acceleration $9.8 ms^{-2}$. The apparent weight of the body is $(g = 9.8 ms^{-2})$

   (a) 50×9.8 N   (b) Zero   (c) 50 N   (d) $\dfrac{50}{9.8}$ N

3. Two masses of 1 gm and 4 gm are moving with equal kinetic energies. The ratio of the magnitudes of their linear momenta is

   (a) $4 : 1$ (b) $\sqrt{2} : 1$ (c) $1 : 2$ (d) $1 : 16$

4. If a spring extends by x on loading, then the energy stored by the spring is (if T is tension in the spring and k is spring constant)

   (a) $\dfrac{T^2}{2x}$ (b) $\dfrac{T^2}{2k}$ (c) $\dfrac{2x}{T^2}$ (d) $\dfrac{2T^2}{k}$

5. 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 $\dfrac{h}{2}$ and from $\dfrac{h}{2}$ to zero is

   (a) $\sqrt{2}$ (b) $\dfrac{1}{\sqrt{2}}$ (c) $\sqrt{2} - 1$ (d) $\dfrac{1}{\sqrt{2} - 1}$

6. Hook's law defines

   (a) Stress   (b) Strain   (c) Modulus of elasticity   (d) Elastic limit

7. A cubical block is floating in a liquid with half of its volume immersed in the liquid. When the whole system accelerates upwards with acceleration of g/3, the fraction of volume immersed in the liquid will be
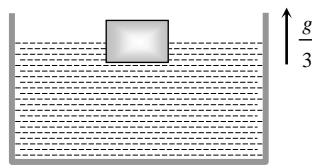

   (a) $\dfrac{1}{2}$ (b) $\dfrac{3}{8}$ (c) $\dfrac{2}{3}$ (d) $\dfrac{3}{4}$

8. Two small spheres each carrying a charge q are placed r metre apart. If one of the spheres is taken around the other one in a circular path of radius r, the work done will be equal to

   (a) Force between them $\times r$ (b) Force between them $\times 2\pi r$

   (c) Force between them $/2\pi r$ (d) Zero

9. Two point charges placed at a certain distance r in air exert a force F on each other. Then the distance r' at which these charges will exert the same force in a medium of dielectric constant k is given by

(a)   r   (b)   r/k

(c) $r/\sqrt{k}$ (d) $r\sqrt{k}$

10. Two waves are given by $y_1 = a\sin(\omega t - kx)$ and $y_2 = a\cos(\omega t - kx)$ The phase difference between the two waves is

(a) $\dfrac{\pi}{4}$ (b) π (c) $\dfrac{\pi}{8}$ (d) $\dfrac{\pi}{2}$
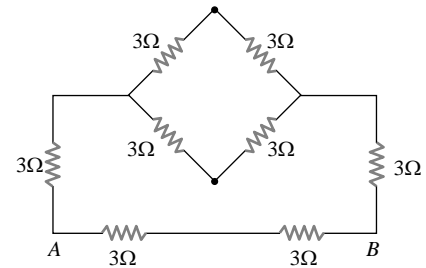
11. The equivalent resistance of the following infinite network of resistances is

(a)   Less than 4Ω

(b)   4Ω

(c)   More than 4Ω but less than 12Ω

(d)   12Ω
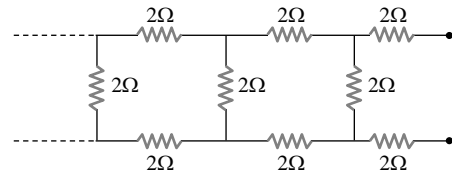
**12.** Equivalent resistance between A and B will be

(a)   2 ohm

(b)   18 ohm

(c)   6 ohm

(d)   3.6 ohm

13. The magnetic field at a distance r from a long wire carrying current i is 0.4 Tesla. The magnetic field at a distance 2r is

(a)   0.2 Tesla   (b)   0.8 Tesla

(c)   0.1 Tesla   (d)   1.6 Tesla

14. A charged particle moves with velocity v in a uniform magnetic field $\vec{B}$. The magnetic force experienced by the particle is

(a)   Always zero   (b)   Never zero

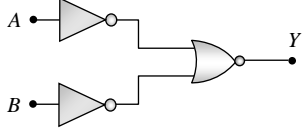(c)   Zero, if $\vec{B}$ and $\vec{v}$ are perpendicular   (d)   Zero, if $\vec{B}$ and $\vec{v}$ are parallel

15. The adjoining figure shows two bulbs B_1 and B_2 resistor R and an inductor L. When the switch S is turned off

(a)   Both B_1 and B_2 die out promptly

(b)   Both B_1 and B_2 die out with some delay

(c) B_1 dies out promptly but B_2 with some delay

(d) B_2 dies out promptly but B_1 with some delay
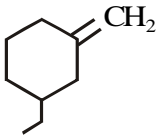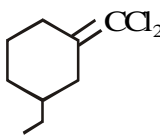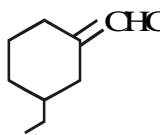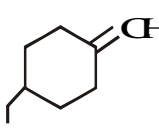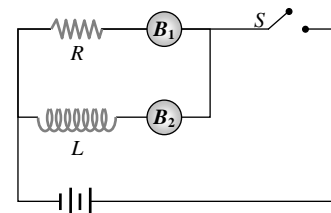
16. As the intensity of incident light increases

(a)   Photoelectric current increases

(b)   Photoelectric current decreases

(c)   Kinetic energy of emitted photoelectrons increases

(d)   Kinetic energy of emitted photoelectrons decreases

17. The spectral series of the hydrogen spectrum that lies in the ultraviolet region is the

    (a) Balmer series
    (b) Pfund series
    (c) Paschen series
    (d) Lyman series

18. Which logic gate is represented by the following combination of logic gates

    (a) OR
    (b) NAND
    (c) AND
    (d) NOR

19. A laser beam of pulse power 10^{12} watt is focussed on an object are 10^{-4} cm^2. The energy flux in watt/cm^2 at the point of focus is

    (a) 10^{20}
    (b) 10^{16}
    (c) 10^8
    (d) 10^4

20. Rutherford's α-particle experiment showed that the atoms have

    (a) Proton
    (b) Nucleus
    (c) Neutron
    (d) Electrons

SECTION - II (CHEMISTRY)

21. The surface tension of water, benzene, toluene and acetone at 20°C are 72.8, 28.9, 28.4 and 23.7 dynes/cm. In which case, there will be strongest intermolecular attraction?

    (a) Benzene   (b) Water   (c) Toluene   (d) Acetone

22. Benzene and toluene form an ideal binary solution. The vapour pressures of benzene and toluene are 75 mm and 25 mm, respectively, at 20°C. If the mole fractions of benzene and toluene in vapour phase are 0.75 and 0.25, respectively, then the vapour pressure of the ideal solution is

    (a) 62.5 mm   (b) 50 mm   (c) 30 mm   (d) 40 mm

23. Metallic gold crystallizes in FCC lattice with an edge length of 4.07 Å. The closest distance between gold atoms is

    (a) 3.525 Å   (b) 5.714 Å   (c) 2.857 Å   (d) 1.428 Å

24. Iodex has base gel constituting of

    (a) Methyl salicylate
    (b) Ethyl salicylate
    (c) Phenyl salicylate
    (d) p-ethoxy acetanilide

25. When acetamide reacts with Br_2 and caustic soda, then we get

    (a) acetic acid
    (b) bromo acetic acid
    (c) ethyl amine
    (d) methyl amine

26. $CHCl_3$ in the presence of sun light and air reacts with C_2H_5OH to form

    (a) ethyl carbonate
    (b) diethyl carbonate
    (c) phosgene
    (d) triethyl carbonate

27. On electrolysis of aqueous KCl, the product formed at the cathode will be

    (a) K   (b) Cl_2 (c) H_2 (d) O_2

28. 1° geminal, 2° geminal and vicinal-dihalide of propane on treatment with aqueous KOH respectively gives

(a) propanol, propanone, propanoic acid   (b) propanone, propanol, glycol

(c) propanal, propanone, propylene glycol   (d) propanol, propanone, trimethylene glycol

29. Which of the following has highest boiling point?

(a) He   (b) Ne   (c) Ar   (d) Xe

30. Laughing gas can be obtained by heating which of the following?

(a) $(NH_4)_2Cr_2O_7$ (b) NH_4NO_2 (c) NH_4NO_3 (d) $(NH_4)_2CO_3$

31. When copper turnings are made to react with dilute HNO_3, the product formed is

(a) NO_2 (b) NO (c) N_2O (d) NH_4NO_3

32. Oxalic acid reacts with concentrated H_2SO_4 to give

(a) $CO + H_2O$ (b) $CO_2 + H_2O$ (c) $CO + CO_2 + H_2O$ (d) C_3O_2

33. Which of the following exists only in aqueous solution?

(a) $NaHCO_3$ (b) $KHCO_3$ (c) $LiHCO_3$ (d) $RbHCO_3$

34. The element that shows catenation to the maximum extent is,

(a) Oxygen   (b) Sulphur   (c) Selenium   (d) Tellurium

35. The blue colour produced on adding H_2O_2 to acidified $K_2Cr_2O_7$ is due to the formation of,

(a) CrO_5 (b) Cr_2O_3 (c) CrO_4^{2-} (d) $Cr_2O_7^{2-}$

36. The overall reaction for the lead storage battery when it discharges is;

$Pb(s) + PbO_2(s) + 4H^+(aq) + 2SO_4^{2-}(aq) \rightarrow 2PbSO_4(s) + 2H_2O(l)$

(P) $PbSO_4$ is formed only at the cathode.

(Q) The density of the solution decreases.

Which statement(s) correctly describe(s) the battery as it discharges?

(a) P only   (b) Q only   (c) both P and Q   (d) neither P nor Q

37. The geometrical isomerism is shown by

(a) [structure with CH_2]   (b) [structure with CCl_2]   (c) [structure with $CHCl$]   (d) [structure with $CHCl$]

38. In the biologically-catalysed oxidation of ethanol, the concentration of ethanol decreases in a first order reaction from 800 mol dm^{-3} to 50 mol dm^{-3} in 2×10^4 s. The rate constant (s^{-1}) of the reaction is

(a) 3.45×10^{-5} (b) 1.38×10^{-4} (c) 1.00×10^{-4} (d) 5.00×10^{-5}

39. The solid which has the weakest forces holding the Lattice is

(a) Silica   (b) Lithium   (c) Iodine   (d) Boron

40. An attempt was done to carry out a cannizarro reaction on Cl_3C-CHO using $NaOH$. Which of these was obtained as the major product in solution?

   (a) CCl_3-CH_2OH (b) CCl_3COONa (c) $CHCl_3$ (d) CCl_4

SECTION -III (MATHEMATICS)

41. Let t_r denote the rth term of an A.P. If $t_m = \dfrac{1}{n}$ and $t_n = \dfrac{1}{m}$ then t_{mn} equals $(m \neq n)$

   (a) $\dfrac{1}{mn}$ (b) $\dfrac{1}{m}+\dfrac{1}{n}$ (c) 1 (d) 0

42. The equation $2\sin^2\dfrac{x}{2}.\cos^2 x = x + \dfrac{1}{x}, 0 < x \le \dfrac{\pi}{2}$ has

   (a) One real solution   (b) no real solution
   (c) Infinitely many real solutions   (d) none of these

43. If $i = \sqrt{-1}$, the values of $i^n + i^{-n}$ for different $n \in Z$ cannot be equal to

   (a) 3   (b) 2   (c) 0   (d) -2

44. The equations $x + y + z = 6$, $x + 2y + 3z = 10$, $x + 2y + mz = n$ has infinite number of values of the triplet (x, y, z) if

   (a) $m = 3, n \in R$ (b) $m = 3, n \neq 10$ (c) $m = 3, n = 10$ (d) none of these

45. The coefficient of x^{20} in the expansion of $\left(1+x^2\right)^{40}.\left(x^2 + 2 + \dfrac{1}{x^2}\right)^{-5}$ is

   (a) $^{30}C_{10}$ (b) $^{30}C_{25}$ (c) 1   (d) none of these

46. The value of $\sin\dfrac{\pi}{14}.\sin\dfrac{3\pi}{14}.\sin\dfrac{5\pi}{14}.\sin\dfrac{7\pi}{14}.\sin\dfrac{9\pi}{14}.\sin\dfrac{11\pi}{14}.\sin\dfrac{13\pi}{14}$ is equal to

   (a) 1   (b) $\dfrac{1}{16}$ (c) $\dfrac{1}{64}$ (d) none of these

47. Which of the following is a true statement?

   (a) $A - B = A \cap B'$ (b) $A - B = A' \cap B$
   (c) $A - B = A' \cap B'$ (d) $A - B = A' - B'$

48. L is a variable line such that the algebraic sum of the distances of the points (1, 1), (2, 0) and (0, 2) from the line is equal to zero. The line L will always pass through

   (a) (1, 1)   (b) (2, 1)   (c) (1, 2)   (d) none of these

49. The equation of the image of the pair of rays $y = |x|$ by the line $x = 1$ is

   (a) $|y| = x + 2$ (b) $|y| + 2 = x$ (c) $y = |x - 2|$ (d) none of these

50. For real numbers x and y, we define x R y if x- y +$\sqrt{2}$ is an irrational number. Then, the relation R is

    (a)   Reflexive but neither symmetric nor transitive

    (b)   Reflexive and symmetric but not transitive

    (c)   Reflexive and transitive but not symmetric

    (d)   An equivalence relation

51. The length of the common chord of the parabola $2y^2 = 3(x+1)$ and the circle $x^2 + y^2 + 2x = 0$ is

    (a) $\sqrt{3}$ (b) $2\sqrt{3}$ (c) $\dfrac{\sqrt{3}}{2}$ (d)   none of these

52. If in a hyperbola the eccentricity is $\sqrt{3}$, and the distance between the foci is 9 then the equation of the hyperbola in the standard form is

    (a) $\dfrac{x^2}{\left(\dfrac{\sqrt{3}}{2}\right)^2} - \dfrac{y^2}{\left(\sqrt{\dfrac{3}{2}}\right)^2} = 1$ (b) $\dfrac{x^2}{\left(\dfrac{3\sqrt{3}}{2}\right)^2} - \dfrac{y^2}{\left(\dfrac{3\sqrt{3}}{\sqrt{2}}\right)^2} = 1$

    (c) $\dfrac{x^2}{\left(\dfrac{3\sqrt{3}}{\sqrt{2}}\right)^2} - \dfrac{y^2}{\left(\dfrac{3\sqrt{2}}{2}\right)^2} = 1$ (d)   none of these

53. If the function $f:[1,+\infty) \to [1,+\infty)$ is defined by $f(x) = 2^{x(x-1)}$ then $f^{-1}(x)$ is

    (a) $\left(\dfrac{1}{2}\right)^{x(x-1)}$ (b) $\dfrac{1}{2}(1+\sqrt{1+4\log_2 x})$

    (c) $\dfrac{1}{2}(1-\sqrt{1+4\log_2 x})$ (d)   not defined

54. If $y = \sec(\tan^{-1}x)$ then $\dfrac{dy}{dx}$ at x = 1 is equal to

    (a) $\dfrac{1}{\sqrt{2}}$ (b) $-\dfrac{1}{\sqrt{2}}$ (c)   1   (d)   none of these

55. $\lim\limits_{x\to0} \dfrac{x\tan 2x - 2x\tan x}{(1-\cos 2x)^2}$ is equal to

    (a)   2   (b)   - 2   (c) $\dfrac{1}{2}$ (d) $-\dfrac{1}{2}$

56. If the standard deviation of a set of observations is 4 and if each observation is divided by 4, the standard deviation of the new set of observations will be

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

57. $\int \dfrac{1+\sin x}{1+\cos x}.e^x dx$ is equal to; k is parameter

    (a) $e^x \tan\left(\dfrac{x}{2}\right)+k$ (b) $e^x \tan x + k$ (c) $\dfrac{1}{2}e^x \tan\dfrac{x}{2}+k$ (d) $e^x \sec^2\dfrac{x}{2}+k$

58. $\int_0^{\pi} \dfrac{dx}{1+3^{\cos x}}$ is equal to

   (a) π (b)   0   (c) $\dfrac{\pi}{2}$ (d)   none of these

59. If $\vec{a}+\vec{b}=2\vec{i}$ and $2\vec{a}-\vec{b}=\vec{i}-\vec{j}$ then cosine of the angle between $\vec{a}$ and $\vec{b}$ is

   (a)   3/5   (b)   4/5   (c)   3/4   (d)   none of these

60. 7 white balls and 3 black balls are placed in a row at random. The probability that no two black balls are adjacent is

   (a) $\dfrac{1}{2}$ (b) $\dfrac{7}{15}$ (c) $\dfrac{2}{15}$ (d) $\dfrac{1}{3}$

SECTION –IV (MAT)

Directions (Qs. 61 and 62) : In the given number series find which number will come in place of ?

61. 4. 6, 8, 14, 22, ?, 58

   (A)   24   (B)   26   (C)   36   (D)   38

62. 6, 7, 9, 12, 16, 21, ?, 34

   (A)   22   (B)   23   (C)   24   (D)   27

Directions (Qs. 63 to 65) : In each of these questions, there are given three statements followed by four conclusions numbered I, II, III and IV. You have to take the given statements to be true even if they seem to be at variance from commonly facts. Read all the conclusions to decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.

63. Statements:

Some dogs are rats.

All rats are trees.

Some trees are not dogs.

Conclusions:

I. Some trees are dogs.   II. All dogs are trees.

III. All rats are dogs.   IV. No tree is dog.

   (a)   None follows   (b)   Only I follows

   (c)   Only I and II follow   (d)   Only II and III follow

64. Statements:

Some boys are rains.

All rains are clouds. Some clouds are cars.

Conclusions:

I. Some clouds are boys.   II. Some cars are boys.

III. Some cars are rains.   IV. Some rains are boys.

   (a)   None follows   (b)   Only IV follows   (c)   Only I follows   (d)   Both i and IV follow

65. Statements:

All bricks are flowers.

Some houses are flowers.

All pens are houses.

Conclusions:

I. Some houses are bricks.   II. Some pens are flowers.

III. Some flowers are bricks.   IV. No pen is flower.

(a)   Only either II or IV and III follow   (b)   Only either II or IV and I follow

(c)   Only either I or III and IV follow   (d)   All follow

66. If BOMBAY is written as MYMYMY, how will TAMILNADU be written in that code?

(a)   TIATIATIA   (b)   MNUMNUMNU

(c)   IATIATIAT   (d)   ALDALDALD

67. In a certain code SUBSTITUTION is written as ITSBUSNOITUT. How is DISTRIBUTION written in that code?

(A)   IRTSIDNOITUB   (B)   IRTSIDNOIBUT

(C)   IRTDISNOITUB   (D)   IRTDISNOIUTB

68. In a certain code TRIPPLE is written a SQHOOKD. How is DISPOSE written in that code?

(a)   CHRONRD   (b)   DSOESPI   (c)   ESJTPTF   (d)   ESOPSID

69. A man said to a lady, "Your mother's husband's sister is my aunt." How is the lady related to the man?

(a)   Daughter   (b)   Sister   (c)   Mother   (d)   Aunt

70. Kamal said "Ravi's mother is the only daughter of my mother." How is Kamal related to Ravi?

(a)   Grand-father   (b)   Father   (c)   Brother   (d)   None of these

71. Arun said, "This girl is the wife of the grandson of my mother." How is Arun related to the girl?

(a)   Husband   (b)   Grand-father   (c)   Uncle   (d)   Father

72. A man says to another, "This boy is the son of the only son of my father." What is the relation between the boy and the man?
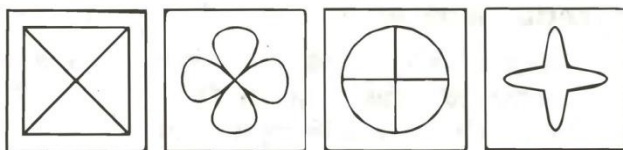
(a)   Brother   (b)   Brother-in-law   (c)   Son   (d)   Cousin

Directions (Ques 73 to 76) : The following Problem Figures themselves are also the Answer Figures. Out of the figures A, B, C, and D three are similar in a certain way. One figure is not like the other three. Choose the figure which is different from the rest.
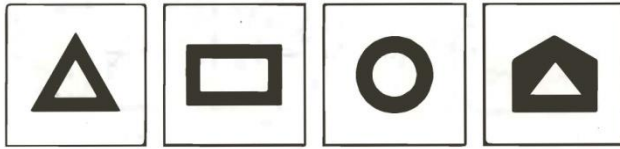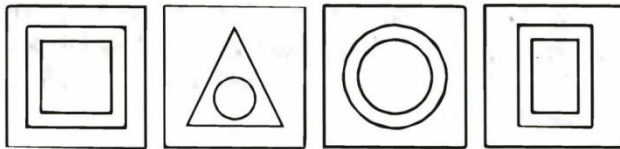
73.

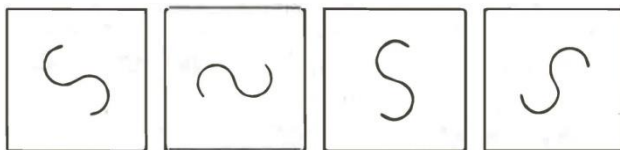
(a)   (b)   (c)   (d)

74.

    (a)   (b)   (c)   (d)

75.

    (a)   (b)   (c)   (d)

76.

    (a)   (b)   (c)   (d)

Directions (Ques 77 to 80) : On the basis of the information given below select the correct alternative as answer for the questions which follow the information.

Six plays A, B, C, D, E and F are to be staged one on each day from Monday to Saturday. The schedule of the plays is to be in accordance with the following information:

(I)   A must be played a day before E.

(II)   C must not be staged on Tuesday.

(III) B must be staged on the day, following the day on which F is staged.

(IV) D must be staged on Friday only and should not be immediately precede by B.

(V) E must not be staged on the last day of the schedule.

77. Which of the following plays is staged immediately after E?

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

78. Which of the following plays is played on Monday?

(a)   E   (b)   F   (c)   C   (d)   B

79. Play D is between which of the following pair of plays?

(a)   B and E   (b)   E and F   (c)   A and E   (d)   C and E

80. Which of the following is the schedule of plays, with the order of their staging from Monday?

(a)   E, A, B, F, D, C   (b)   A, F, B, E, D, C

(c)   F, A, B, E, D, C   (d)   None of these

81. Which of the following is one of the most significant discoveries of the twentieth century that greatly contributed towards the welfare of human society?

    (a) Biogas   (b) Curd   (c) Penicillin   (d) Citric acid

82. Which of the following organisms are abundant in the bottom of the pond?

    (a) Zooplanktons and actinomycetes

    (b) bacteria, fungi and flagellates

    (c) Phytoplanktons and flagellates

    (d) Green algae, actinomycetes and flagellates

83. World Summit on sustainable development held in 2002 in

    (a) Rio de Janeiro   (b) Japan   (c) Johannesburg   (d) London

84. Consider the following four statements (I– IV) related to cell cycle, and select the correct option stating them as true (T) and false (F)

    I.   Cell growth in terms of cytoplasmic increase is a continuous process

    II.   Interphase is the phase of actual cell division

    III. The number of chromosomes doubles in S–phase

    IV.   The cell that do not divide further exist G1–phase to enter an inactive stage

    Options :

	I	II	III	IV
(a)	T	F	F	F
(b)	F	T	T	T
(c)	F	F	T	T
(d)	T	F	F	T

85. The microtubules from the opposite poles of the spindle attach to the pair of homologous chromosomes in

    (a) Metaphase – I   (b) Prophase – I   (c) Metaphase   (d) Metaphase – II

86. Ecology is basically concerned with four levels of biological organization, which one of the following is correct representation?

    (a) Population $\rightarrow$ Ecosystem $\rightarrow$ Biome $\rightarrow$ Landscape

    (b) Communities $\rightarrow$ Population $\rightarrow$ Ecosystem $\rightarrow$ Biome

    (c) Organisms $\rightarrow$ Population $\rightarrow$ Communities $\rightarrow$ Biome

    (d) Species $\rightarrow$ Ecosystem $\rightarrow$ Communities $\rightarrow$ Biome

87. Arrange the following stages of microspore development into pollen grain, in correct sequence
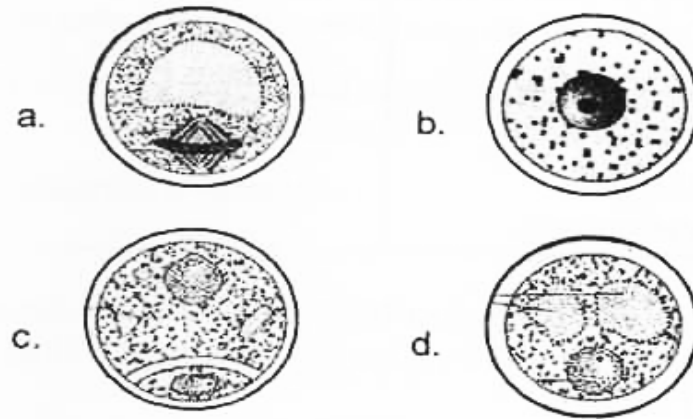
    (a)   b, c, d, and a   (b)   b, d, a and c   (c)   a, c, b and d   (d)   b, a, d and c

88. Death of organism is the beginning of food chain in which

    (a)   Energy and nutrient requirement is met by degrading organic matter

    (b)   Major conduct for energy flow is operational in aquatic ecosystem

    (c)   Number of trophic levels are limited

    (d)   Producers belong to first carefully

89. Find the correct match w.r.t. crop variety for their disease resistant

	Column I		Column II
(a)	*Pusa Komal*	(i)	Tobacco mosaic virus
(b)	*PusaSadabahar*	(ii)	Black rot
(c)	*Pusa Shubhra*	(iii)	White rust
(d)	*PusaSwarnim*	(iv)	Bacterial Blight

    (a)   a(iv), b(i), c(ii), d(iii)   (b)   a(iv), b(i), c(iii), d(ii)

    (c)   a(i), b(iv), c(ii), d(iii)   (d)   a(ii), b(iii), c(iv), d(i)

90. Pollen grains are well-preserved as fossils because of the presence of

    (a)   Pollenkitt   (b)   Sporopollenin   (c)   Pecto-cellulose   (d)   Lingo-cellulose

91. A, B and C are found in
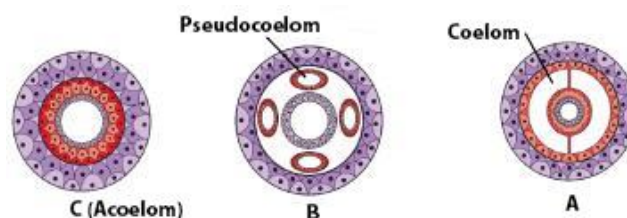
    (a)   Annelids, Aschelminthes, Platyhelminthes respectively

    (b)   Platyhelminthes, Annelids, Aschelminthes respectively

    (c)   Aschelminthes, Platyhelminthes, Annelids respectively

    (d)   Sponges, Aschelminthes, Platyhelminthes respectively

92. Match the correct option :

	Column– I		Column – II
A.	*Testudo*	I.	Tortoise
B.	*Calotes*	II.	Garden lizard
C.	*Alligator*	III.	Wall lizard
D.	*Hemidactylus*	IV.	Alligator

The correct matching is

(a)   A – I, B – II, C – III, D – IV   (b)   A – I, B – II, C – IV, D –III

(c)   A – II, B – I, C – III, D – IV   (d)   A – IV, B – III, C – II, D – I

93. Which of the following is incorrect?

(a)   Quarternary structure refers to the spatial relations between individual polypeptide chains in a multichained protein

(b)   The tertiary structure is absolutely necessary for many biological activities of protein

(c)   Biologists describe the protein structures at 3 levels only

(d)   Protein structure is correlated with protein function

94. Mark the incorrect match ?

(a)   Ovulation $\rightarrow$ Release of ovum during the middle of menstrual cycle.

(b)   Implantation $\rightarrow$ Blastocyst embedded in the endometrium of uterus

(c)   Second polar body $\rightarrow$ it is formed along with ootid

(d)   Foetal ejection reflex $\rightarrow$ Trigger by the release of oxytocin from the maternal pituitary

95. Mark the correct match ?

(a)   Extract of *Atropa bolladona*$\rightarrow$ causes Hallucination

(b)   Extract of *Papaver Somniferous*$\rightarrow$ its natural extracts is smack

(c)   Extract of *Cannabis Sativa*$\rightarrow$ Effects on cardiovascular system of the body

(d)   Extract of *Erythroxylum Coca* $\rightarrow$ it interferes with specific neurotransmitter

96. 'Cirrhosis' related to

(a)   Enlargement of prostate gland

(b)   Dysfunction of liver

(c)   Kideny dysfunction

(d)   Premature closure of growth centers of the long bones

97. Where do certain symbiotic microorganisms normally occur in human body?

(a)   Caecum   (b)   Oral lining and tongue surface

(c)   Vermiform appendix and rectum   (d)   Duodenum

98. Identify the wrongly matched pair

(a)   typhoid –Widal test   (b)   plague – Viral disease

(c)   malignant malaria –*Plasmodium falciparum*

(d)   *Trychophyton*– ringworm

99. Match the type of immunity listed in column I with the examples listed in column II. Choose the answer that gives the correct combination of alphabets of the two columns

	Column I		Column II
A	Natural active	p	Immunity developed by heredity
B	Artificial passive	q	From mother to foetus through placenta
C	Artificial active	r	Injection of antiserum to travelers
D	Natural passive	s	Fighting infectous naturally
		t	Induced by vaccination

(a) A – s, B – t, C – q, D – r

(b) A – t, B – s, C – r, D – p

(c) A – p, B – q, C – r, D – t

(d) A – s, B – r, C – t, D – q

100. Which is the correct order or increasing geological time scale for a hypothetical vertebrate evolution?

(a) Cenozoic, Mesozoic, palaeozoic, Precambrian

(b) Cenozoic, palaeozoic, Mesozoic, Precambrian

(c) Precambrian, Cenozoic, palaeozoic, Mesozoic

(d) Precambrian, palaeozoic, Mesozoic, Cenozoic