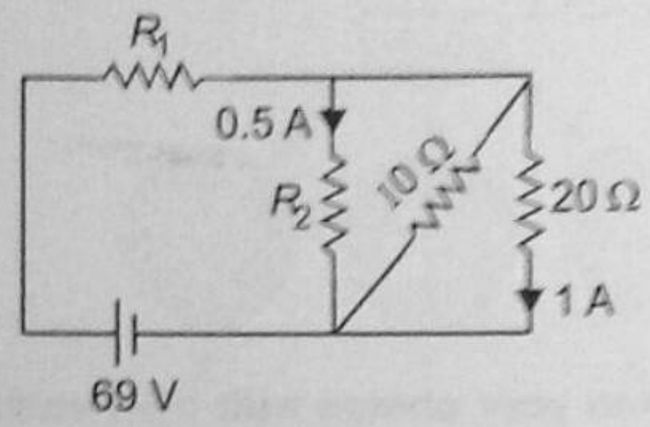
SECTION-1
PHYSICS

1. A charged particle of mass m and charge q is released from rest in an electric field of constant magnitude E. The kinetic energy of the particle after time t is

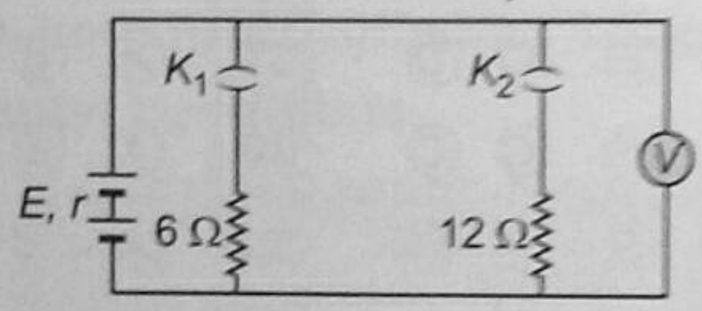
(A) $\frac{E^2q^2t^2}{2m}$ (B) $\frac{2E^2t^2}{mq}$ (C) $\frac{Eqm}{2t}$ (D) $\frac{Eq^2m}{2t^2}$

2. In the circuit shown in the given figure, the resistances R_1 and R_2 are respectively



(A) 14 Ω and 40 Ω (B) 40 Ω and 14 Ω (C) 40 Ω and 30 Ω (D) 14 Ω and 30 Ω

3. A battery of emf E and internal resistance r is connected to the circuit as shown in the figure. When the key K_1 is closed and K_2 is open, the ideal voltmeter shows a reading of 18 V. When key K_2 is closed and K_1 is open, the voltmeter reading is 24 V. When K_1 and K_2 are both open, the voltmeter reading is

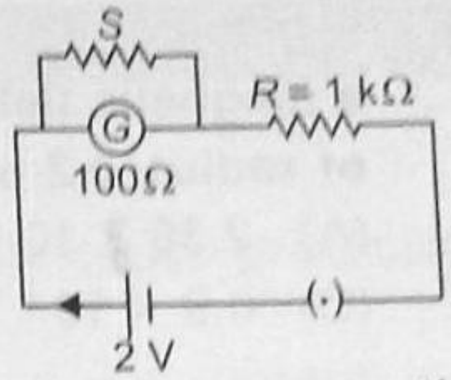


(A) 8 V (B) 12 V (C) 24 V (D) 36 V

4. While finding the refractive index of a glass slab, the travelling microscope is focussed on ink dot on a white paper at position 4.320 cm. When a glass slab is placed on this ink dot on paper, the microscope is raised through 1.80 cm. The thickness of glass slab of refractive index $\frac{3}{2}$ is

(A) $\frac{1}{0.8}$ cm (B) 2.70 cm (C) 5.4 cm (D) 1.2 cm

5. **A galvanometer is connected as shown in figure. It has resistance of 100 Ω. What should be resistance connected to it in parallel so that its deflection is reduced to half?**



(A) 100 Ω (B) 91 Ω
(C) 99 Ω (D) None of these

6. **A square loop of wire, side length 10 cm is placed at angle of 45° with a magnetic field that changes uniformly from 0.1 T to zero in 0.7 seconds. The induced current in the loop (its resistance is 1 Ω) is**

(A) 1.0 mA (B) 2.5 mA (C) 3.5 mA (D) 4.0 mA

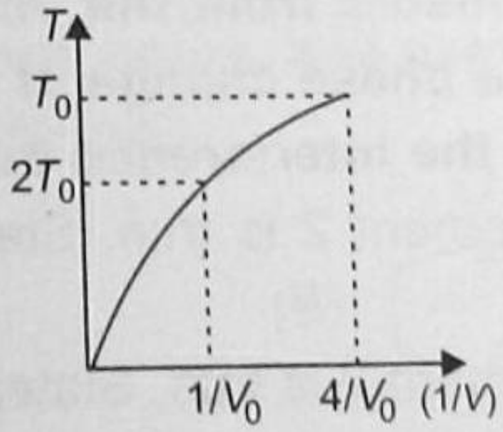
7. **You have been provided with four 400 ohm resistors each. The number of ways in which these can be combined to have different equivalent resistances is**

(A) Seven different combinations and seven different equivalent resistances
(B) Eight different combinations and seven different equivalent resistances
(C) Nine different combinations and eight different equivalent resistances
(D) Ten different combinations and nine different equivalent resistances

8. **A copper wire of length 50.0 cm and total resistance of 1.1×10^{-2} Ω is formed into a circular loop and placed perpendicular to a uniform magnetic field that is increasing at the constant rate of 10.0 mT/s. At what rate is thermal energy generated in the loop?**

(A) 1.32×10^{-8} W (B) 2.36×10^{-4} W (C) 3.68×10^{-6} W (D) 4.23×10^{-5} W

9. **A parabolic graph between T and $\frac{1}{V}$ for a mixture of a gas undergoing an adiabatic process as shown in figure. What is the ratio of v_{rms} and speed of sound in the mixture?**



(A) 1 (B) 3 (C) $\sqrt{2}$ (D) None of these

10. **A self-propelled vehicle of mass m whose engine delivers a constant power P has an acceleration $a = \frac{P}{mv}$. What is the distance travelled by it (assuming no friction) to increase the velocity of the vehicle from v_1 to v_2?**

(A) $x = \frac{3m}{P}\left(v_2^3 - v_1^3\right)$ (B) $x = \frac{m}{3P}\left(v_2^3 - v_1^3\right)$

(C) $x = \frac{2m}{P}\left(v_2^3 - v_1^3\right)$ (D) $x = \frac{m}{2P}\left(v_2^3 - v_1^3\right)$

11. **A beam of 450 nm light is incident on a metal having work function 2 eV and placed in a magnetic field *B*. If the most energetic electrons emitted are bent into circular arc of radius 0.2 m, find *B*.**

(A) 2.36×10^{-4} T
(B) 1.46×10^{-5} T
(C) 6.9×10^{-5} T
(D) 9.2×10^{-6} T

12. **Monochromatic light of wavelengths 400 nm and 560 nm are incident simultaneously and normally on double slit apparatus whose slit separation is 0.1 mm and screen distance is 1 m. Distance between areas of total darkness will be**

(A) 4 mm
(B) 5.6 mm
(C) 14 mm
(D) 28 mm

13. **A vessel has 6 g of oxygen at pressure *P* and temperature 400 K. A small hole is made in it so that oxygen leaks out. How much oxygen leaks out if the final pressure is *P*/2 and temperature 300 K?**

(A) 5 g
(B) 4 g
(C) 2 g
(D) 3 g

14. **Direction :**

The question has a paragraph followed by two statements, Statement-1 and Statement-2. Of the given four alternatives after the statements, choose the one that describes the statements.

A thin air film is formed by putting the convex surface of a plane-convex lens over a plane glass plate. With monochromatic light, this film gives an interference pattern due to light reflected from the top (convex) surface and the bottom (glass plate) surface of the film.

Statement 1 : When light reflects from the air-glass plate interface, the reflected wave suffers a phase change of π.

Statement 2 : The centre of the interference pattern is dark.

(A) Statement 1 is true, Statement 2 is true, Statement 2 is the correct explanation of Statement 1.
(B) Statement 1 is true, Statement 2 is true, Statement 2 is not the correct explanation of Statement 1.
(C) Statement 1 is true, Statement 2 is false.
(D) Statement 1 is false, Statement 2 is true.

15. **A conducting circular loop of radius *a* and resistance *R* is kept on a horizontal plane. A vertical time varying magnetic field $B = 2t$ is switched on at time $t = 0$. Then**

(A) Flow of charge per unit time from any section of the coil is constant
(B) Total charge passed through any section between time $t = 0$ to $t = 2$ is $\left(\frac{4\pi a^2}{R}\right)$
(C) Power generated in the coil at any time t is constant
(D) All of the above

16. **Which of the following statements are correct?**

(i) **Smaller the gold number of lyophilic colloid, the larger will be its protective power.**

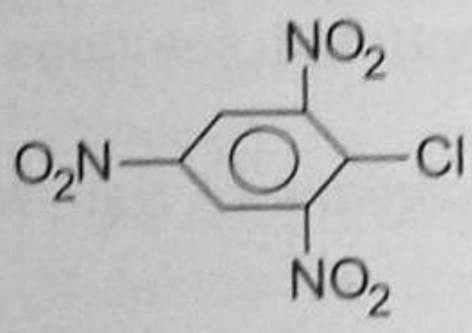
(ii) **Lyophilic sols, in contrast to lyophobic sols can easily coagulate on addition of small amount of electrolyte.**

(iii) **Ferric chloride solution is used to stop bleeding from a fresh cut because it coagulates the blood.**

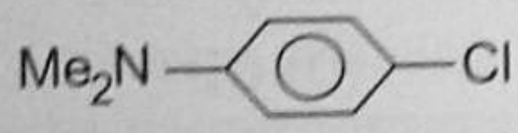
(iv) **The flocculation value of arsenious sulphide sol is independent of the charge of anion of the coagulating electrolyte.**

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

17. **Which chloroderivative of benzene among the following would undergo hydrolysis most readily with aqueous sodium hydroxide to furnish the corresponding hydroxy derivative?**

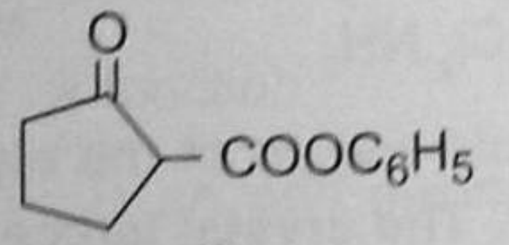
(A) 

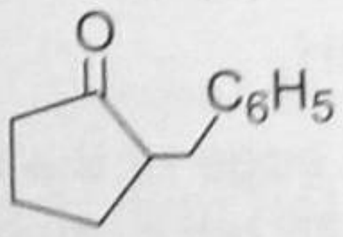
(B) 

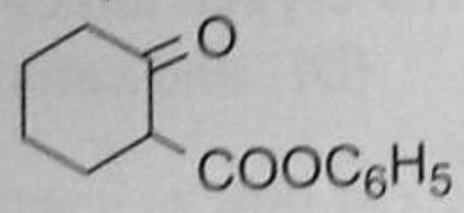
(C) 

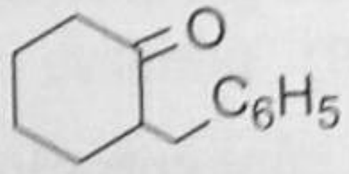
(D) C_6H_5Cl

18. **Dieckmann condensation of diethyl adipate was carried out by heating with sodium ethoxide. One equivalent of benzyl bromide was added, and the resulting mixture was then refluxed in 5% HCl for several hours, and extracted with ether. What compound has been prepared by this procedure?**

(A) 

(B) 

(C) 

(D) 

19. **When vapours of *X* were gradually heated from 25°C at atmospheric pressure, the colour was found to deepen at first and then fades as the temperature was raised above 160°C. At 600°C, the vapours were almost colourless, but the colour deepened when the pressure was raised at this temperature. Identify *X*.**

(A) Bromine.
(B) A mixture of nitrogen dioxide and dinitrogen tetroxide.
(C) Pure nitrogen dioxide.
(D) Pure dinitrogen tetroxide.

20. **The decrease in vapour pressure of a pure solvent is observed to be 10 mm Hg when a non-volatile solute is added to the solvent. The mole fraction of the solute in the solution is 0.2. What should be the mole fraction of same solvent if decrease in vapour pressure is to be 20 mm Hg?**

(A) 0.1 (B) 0.6 (C) 0.4 (D) 0.2

21. **1. $FeCl_3$ solution + Zn $\rightarrow$ product *X***

2. $FeCl_3$ solution + H_2 gas $\rightarrow$ product *Y*

$FeCl_3$ solution gives blue colour with $K_4[Fe(CN)_6]$, hence

(A) *X* also gives blue colour with $K_4[Fe(CN)_6]$

(B) *Y* also gives blue colour with $K_4[Fe(CN)_6]$

(C) Both *X* and *Y* give blue colour with $K_4[Fe(CN)_6]$

(D) None gives colour with $K_4[Fe(CN)_6]$

22. **The equivalent conductance at infinite dilution of an acid like HF**

(A) can be determined by extrapolation of measurements of dilute solutions of HCl, HBr and HI

(B) can be determined by measurement of very dilute HF solution

(C) can best be determined from measurements of concentrated solutions of NaF, NaCl and HCl

(D) can best be determined from measurements of dilute solutions of NaF, NaCl and HCl

23. **Which has maximum percentage of Cl ?**

(A) PVC (B) BHC (C) Neoprene (D) DDT

24. **A mole of complex compound $Co(NH_3)_5Cl_3$ gives 3 mole of ions, when dissolved in water. One mole of the same complex reacts with two moles of $AgNO_3$ solution to form two moles of AgCl(s). The structure of complex is**

(A) $[Co(NH_3)_5Cl]Cl_2$ (B) $[Co(NH_3)_3Cl_3].2NH_3$

(C) $[Co(NH_3)_4Cl_2]Cl.2NH_3$ (D) $[Co(NH_3)_4Cl]Cl_2.NH_3$

25. **In a cubic lattice, each edge of the unit cell is 400 pm. Atomic weight of the element is 60 and its density is 6.25 g/c.c. Avogadro number = 6×10^{23}. The crystal lattice is**

(A) face-centred (B) primitive (C) body-centred (D) end-centred.

26. **The rate of change of concentration of *P* for reaction:**

$P \rightarrow Q$ is given by $\frac{-d[P]}{dt} = k[P]^{1/3}$

The half-life period of the reaction will be

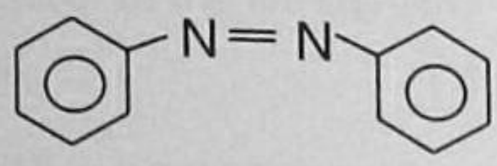
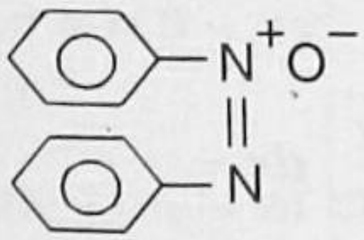
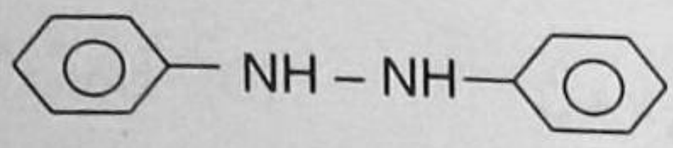
(A) $\frac{3[P_0]^{2/3}[(2)^{2/3}-1]^2}{(2)^{5/3}k}$

(B) $\frac{\frac{3}{2}[P_0]^{2/3}[(2)^{2/3}-1]}{k}$

(C) $\frac{3[P_0]^{2/3}[(2)^{2/3}-1]}{(2)^{5/3}k}$

(D) $\frac{\frac{2}{3}[P_0]^{3/2}[(2)^{2/3}-1]}{k}$

27. **At isoelectric point, solubility of amino acids in water is minimum because**
(A) they are organic acids
(B) molecules show intramolecular hydrogen bonding
(C) concentration of cations and anions becomes equal
(D) concentration of zwitter ions is maximum.

28. **In the reduction of nitrobenzene into aniline, the intermediate is**
(A) 
(B) 
(C) 
(D) None of these.

29. **To a solution containing Fe^{3+} and Ti^{4+} when excess of NH_4OH is added, a ppt. (*X*) is produced. The ppt. (*X*) contains**
(A) $TiO.nH_2O$ and $Fe(OH)_3$
(B) $TiO_2.nH_2O$ and $Fe(OH)_3$
(C) only $TiO_2.nH_2O$
(D) only $Fe(OH)_3$

30. **Which is not the correct statement?**
(A) Cassiterite, chromite and pitchblende are concentrated by hydraulic washing (Tabling).
(B) Pure AlO_2 is obtained from the bauxite ore by leaching in the Baeyer's process.
(C) Sulphide ore is concentrated by calcination method.
(D) Roasting can convert sulphide into oxide or sulphate and part of sulphide may also act as a reducing agent.

SECTION-2
MATHEMATICS

31. **Let $R = \{(1, 3), (4, 2), (2, 3), (3, 1)\}$ be a relation on the set $A = \{1, 2, 3, 4\}$. The relation *R* is**
(A) a function (B) transitive (C) symmetric (D) reflexive

32. **If f(x) is an odd periodic function with period 2, then f(4) equals**
(A) 0 (B) 2 (C) 4 (D) –4

33. **If $\tan\frac{\pi}{9}, x$ and $\tan\frac{5\pi}{18}$ are in A.P. and $\tan\frac{\pi}{9}, y$ and $\tan\frac{7\pi}{18}$ are also in A.P., then**
(A) $2x = y$ (B) $x > y$ (C) $x = y$ (D) None of these

34. **If $\Delta = \begin{vmatrix} \cos\alpha & -\sin\alpha & 1 \\ \sin\alpha & \cos\alpha & 1 \\ \cos(\alpha+\beta) & -\sin(\alpha+\beta) & 1 \end{vmatrix}$, then**
(A) $\Delta \in [1-\sqrt{2}, 1+\sqrt{2}]$
(B) $\Delta \in [-1, 1]$
(C) $\Delta \in [-\sqrt{2}, \sqrt{2}]$
(D) None of these

35. Let $f(x) = \begin{cases} x^n \sin \frac{1}{x} & x \neq 0 \\ 0, & x = 0 \end{cases}$,

Then, f is continuous but not differentiable at $x = 0$ if

(A) $n \in (0, 1]$ (B) $n \in [1, \infty)$

(C) $n \in (-\infty, \infty)$ (D) $n = 1$

36. $\int \cos\left\{2\tan^{-1}\sqrt{\frac{1-x}{1+x}}\right\} dx =$

(A) $\frac{1}{2}x^2 + C$ (B) $\frac{1}{8}(x^2 - 1) + C$ (C) $\frac{1}{2}x + C$ (D) None of these

37. A car is parked by an owner amongst 25 cars in a row, not at either end. On his return he finds that exactly 15 places are still occupied. The probability that both the neighbouring places are empty is

(A) $\frac{91}{276}$ (B) $\frac{15}{184}$ (C) $\frac{15}{92}$ (D) None of these

38. If $f(x) = \int_0^x (t^2 + 2t + 2)\, dt$, $2 \leq x \leq 4$, then

(A) the maximum value of $f(x)$ is $\frac{136}{3}$ (B) the minimum value of $f(x)$ is 10

(C) the maximum value of $f(x)$ is 26 (D) None of these

39. If $a < 1/32$, then the number of solutions of $(\sin^{-1}x)^3 + (\cos^{-1}x)^3 = a\pi^3$ is

(A) 0 (B) 1 (C) 2 (D) infinite

40. If $a_1, a_2, a_3, \ldots\ldots, a_n, \ldots\ldots$ are in G.P., then the determinant $\Delta = \begin{vmatrix} \log a_n & \log a_{n+1} & \log a_{n+2} \\ \log a_{n+3} & \log a_{n+4} & \log a_{n+5} \\ \log a_{n+6} & \log a_{n+7} & \log a_{n+8} \end{vmatrix}$ is equal to

(A) 0 (B) 1 (C) 2 (D) None of these

41. The function $\sin^{-1}(\sin x)$ is

(A) an even function (B) a periodic function with period π

(C) a periodic function with period 2π (D) None of these

42. If $x^2e^y + 2xye^x + 13 = 0$, then $\frac{dy}{dx} =$

(A) $\frac{2x\,e^{y-x} + 2y\,(x+1)}{x(x\,e^{y-x} + 2)}$ (B) $2x\,e^{x-y} + 2y\,(x+1)$

(C) $-\frac{2x\,e^{x-y} + 2y(x+1)}{x(x\,e^{x-y} + 2)}$ (D) None of these

43. **N characters of information are held on magnetic tape, in batches of x characters each, the batch processing time is $\alpha + \beta x^2$ seconds, α and β are constants. The optical value of x for fast processing is,**

(A) $\frac{\alpha}{\beta}$ (B) $\frac{\beta}{\alpha}$ (C) $\sqrt{\frac{\alpha}{\beta}}$ (D) $\sqrt{\frac{\beta}{\alpha}}$

44. **Find the area bounded by the curves $x = y^2$ and $x = 3 - 2y^2$.**

(A) 4 (B) 5 (C) 3 (D) 6

45. **Find the equation of orthogonal trajectory of the family of curves $xy = c$.**

(A) $x + y = c$ (B) $x - y = c$ (C) $x^2 - y^2 = c$ (D) $x^2 - y^2 = c$

46. **Angle between the vectors $2\hat{i} + 6\hat{j} + 3\hat{k}$ and $12\hat{i} - 4\hat{j} + 3\hat{k}$ is**

(A) $\cos^{-1}\left(\frac{1}{10}\right)$ (B) $\cos^{-1}\left(\frac{9}{11}\right)$ (C) $\cos^{-1}\left(\frac{9}{91}\right)$ (D) $\cos^{-1}\left(\frac{1}{9}\right)$

47. **You are given a combination of alphabets and numbers followed by four alternatives (A), (B), (C) and (D). Choose the alternative which most closely resembles the water image of the given combination.**

R A J 5 8 9 D 8

(A) ʁ ∀ ſ ƨ 8 ϑ D 8 (B) ʁ ∀ ſ ƨ 8 ϑ D 8

(C) ʁ ∀ ſ ƨ 8 ϑ D 8 (D) ʁ ∀ ſ ƨ 8 ϑ D 8

48. **In the following question, two rows of numbers are given. The resultant number in each row is to be worked out separately based on the following rules and the question below the rows of numbers is to be answered. The operations of numbers progress from left to right.**

Rules :

(i) If an odd number is followed by another composite odd number, they are to be multiplied.

(ii) If an even number is followed by an odd number (not a perfect square), they are to be added.

(iii) If an even number is followed by a number which is the perfect square, then even number is to be subtracted from the perfect square.

(iv) If an odd number is followed by a prime odd number, the first number is to be divided by the second number.

(v) If an odd number is followed by an even number, the second one is to be subtracted from the first one.

14 11 9

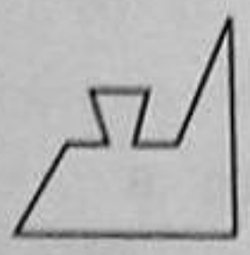
104 q 11

If q is the resultant of the first row, what is the resultant of the second row?

(A) 1331 (B) 132 (C) 5 (D) 11

49. A figure X is provided shown below. Choose a figure from four options that is sufficient to form a perfect square after fitting it into the given figure X.

Fig. (X)

(A) 

(B) 

(C) 

(D) 

50. What should come next in the following letter sequence?

M P T R Z M P T R Y M P T R X M P T R

(A) P (B) R (C) K (D) none of these

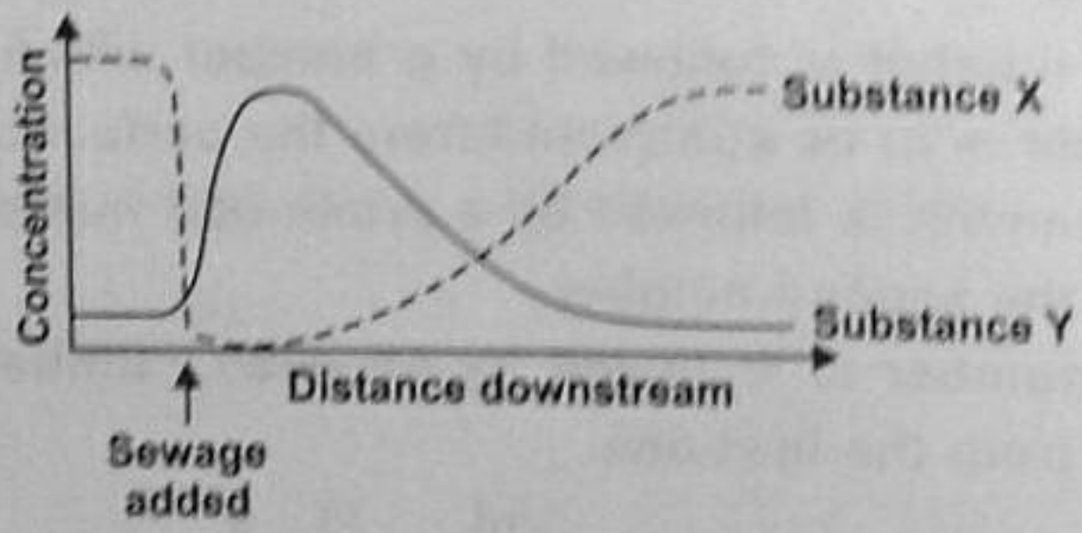
OR

BIOLOGY

31. Which one of the following cannot be explained on the basis of Mendel's law of dominance?
    (A) The discrete unit controlling a particular character is called a factor.
    (B) Out of one pair of factors one is dominant, and the other recessive
    (C) Alleles do not show any blending and both the characters recover as such in F_2 generation.
    (D) Factors occur in pairs.

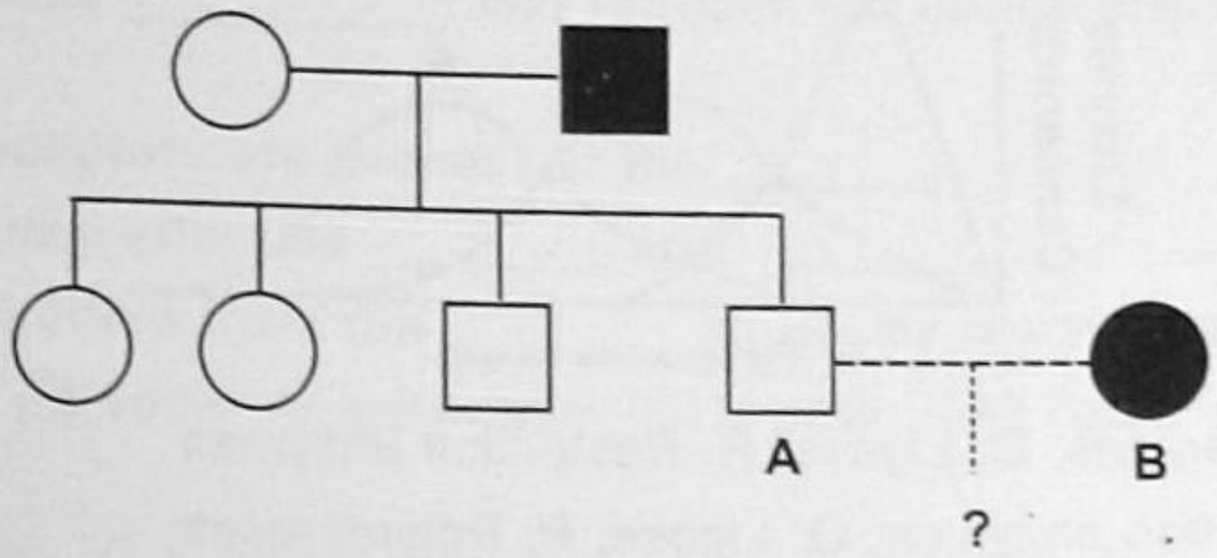
32. In genetic fingerprinting, the 'probe' refers to a radioactively labelled
    (A) single stranded DNA molecule
    (B) single stranded RNA molecule
    (C) double stranded RNA molecule
    (D) double stranded DNA molecule.

33. The given graph shows changes in concentration of two substances X and Y in a river polluted by sewage. Select the correct option regarding X and Y.



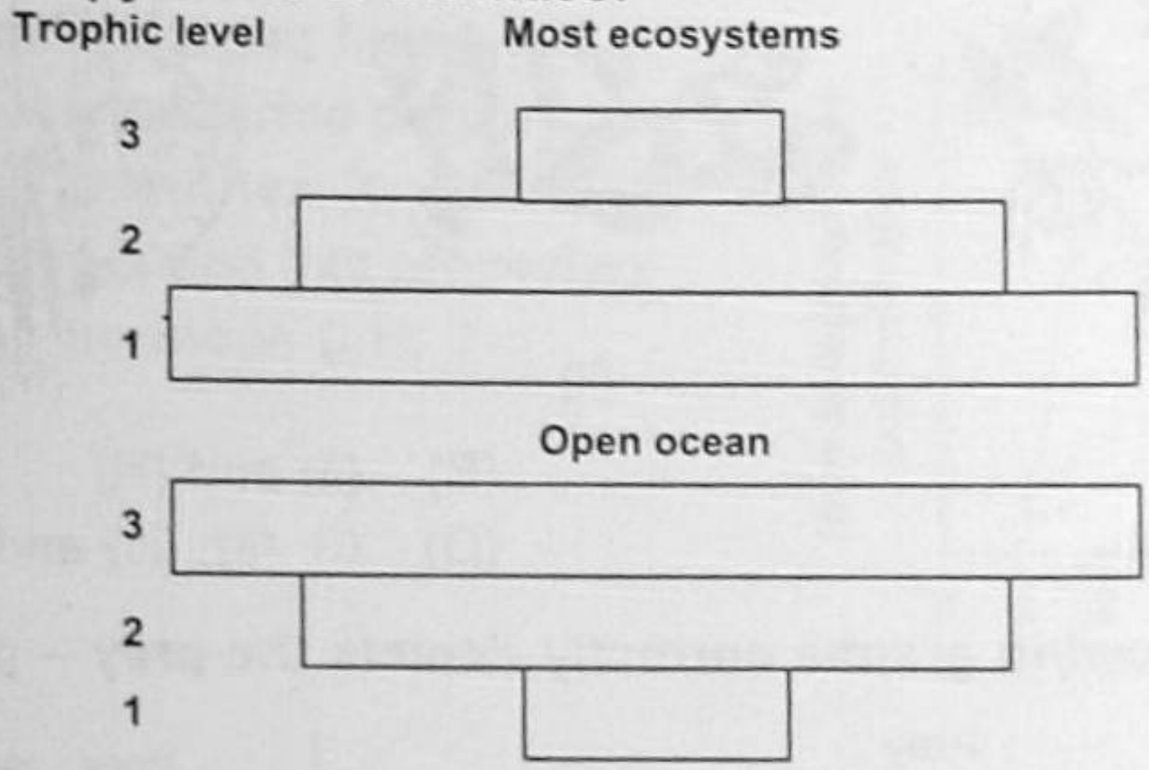
(A) Eutrophication occurs in river due to the enrichment of substance Y.
(B) BOD of river is comparatively lower when concentration of substance X is reduced.
(C) Substance Y helps in the recovery of river from sewage pollution
(D) None of these.

34. **In the pedigree shown, individuals with the solid symbols suffer from a genetic disease caused by a recessive allele at an autosomal locus. You would counsel the couple marked A and B that the probability that each of their children will have the disease is:**



(A) 0% (B) 25% (C) 50% (D) 75%

35. **In most ecosystems, the biomass of a trophic level is higher than the biomass of its predators, as illustrated below by an upright pyramid of biomass. In the open ocean, however, the biomass of primary producers (microscopic algae) is often lower than the biomass of higher trophic levels (for example, zooplankton and fish), as illustrated below by an inverted pyramid of biomass.**



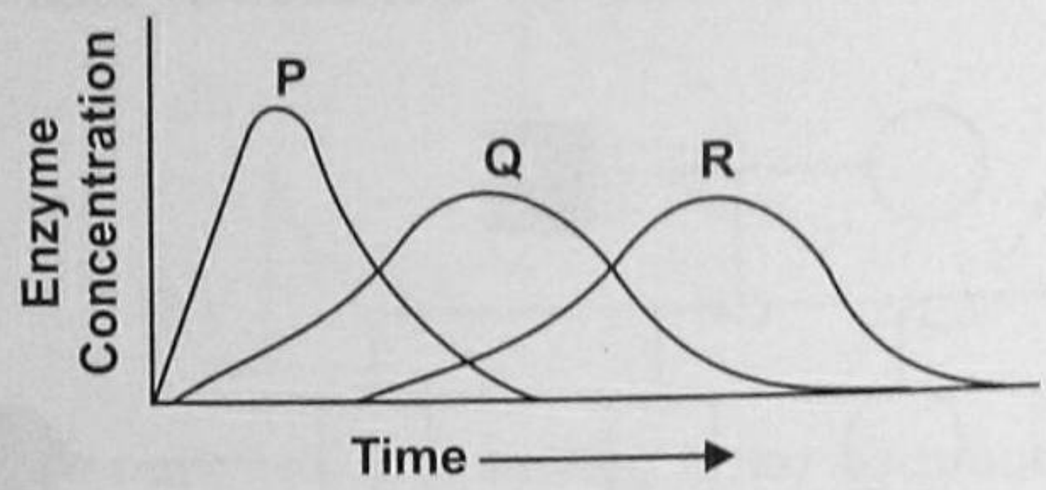
In the open ocean, how can there be enough food to support the higher trophic levels?

(A) The microscopic primary producers are a source of food of high quality.
(B) The microscopic primary producers have high rates of growth and reproduction.
(C) The higher trophic levels are cold-blooded animals which do not require much food.
(D) The higher trophic levels are efficient predators.

36. **Community is**

(A) A group of interdependent and interacting populations of different species
(B) A group of interdependent and interacting populations of same species
(C) A group of interdependent and interacting populations of same species in a specific area
(D) A group of interdependent and interacting populations of different species in a specific area.

37. **The concentration of certain enzymes in the cell during recombination is graphically represented. The curves P, Q and R represent:**



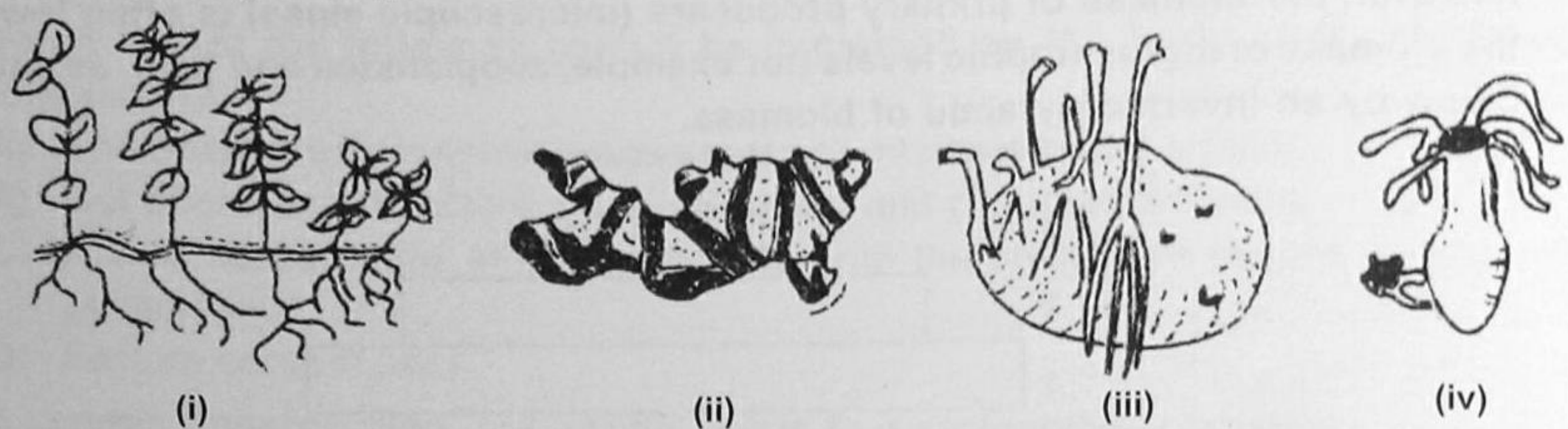
(A) P: Polymerases; Q: Ligase; R: Restriction enzymes

(B) P: Restriction enzymes; Q: Ligase; R: Polymerases

(C) P: Restriction enzymes; Q: Polymerases; R: Ligase

(D) P: Restriction enzymes; Q: Ligase; R: Endonuclease.

38. **Which of the given figures does not show vegetative propagation ?**



(i) (ii) (iii) (iv)

(A) (i) only

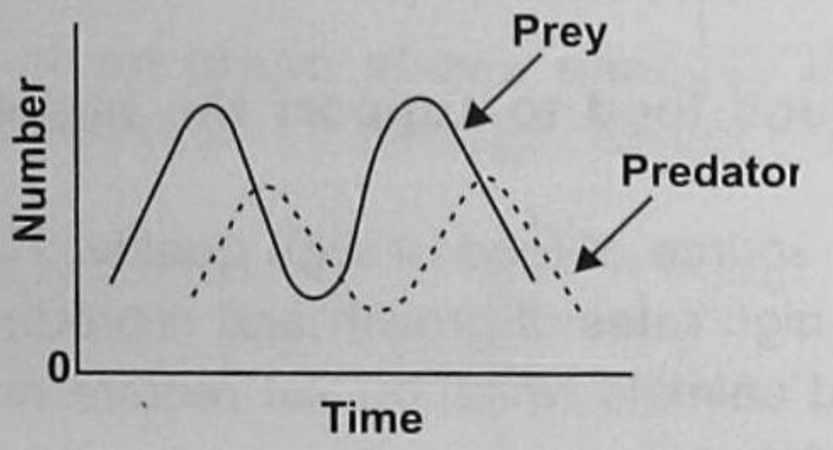
(B) (ii) and (iii)

(C) (iv) only

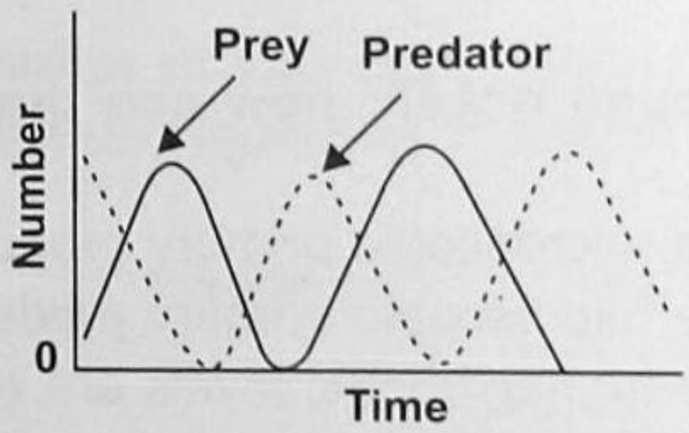
(D) (i), (ii), (iii) and (iv).

39. **Which of the following graphs correctly depicts the prey – predator relationship?**

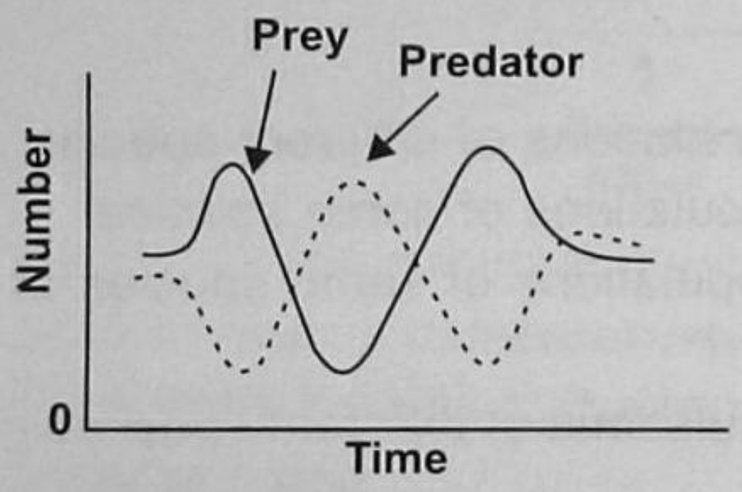
(A)



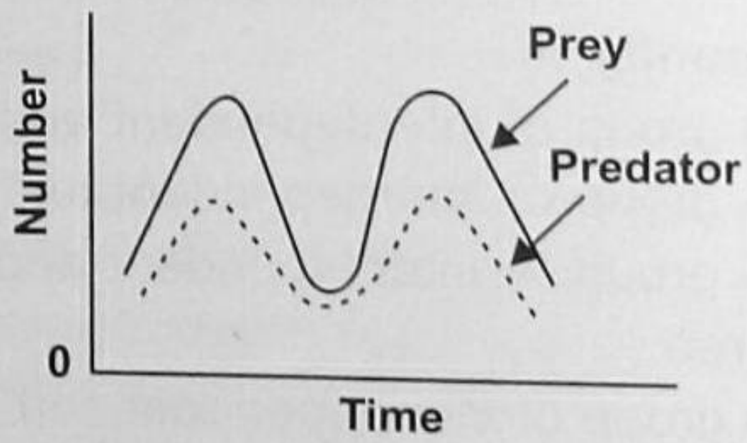
(B)



(C)



(D)



40. **Select the correct options to fill up the blanks.**

(i) **With repeated use of drugs, the tolerance level of receptors present in our body_____.**

(ii) **Smoking produces _____ and reduces the concentration of _____ in blood.**

(iii) **Cannabinoid receptors are present in the_____.**

(iv) **Morphine is a very effective _____ and _____.**

(v) **Opioids are extracted from the _____ of poppy plant, *Papaver somniferum*.**

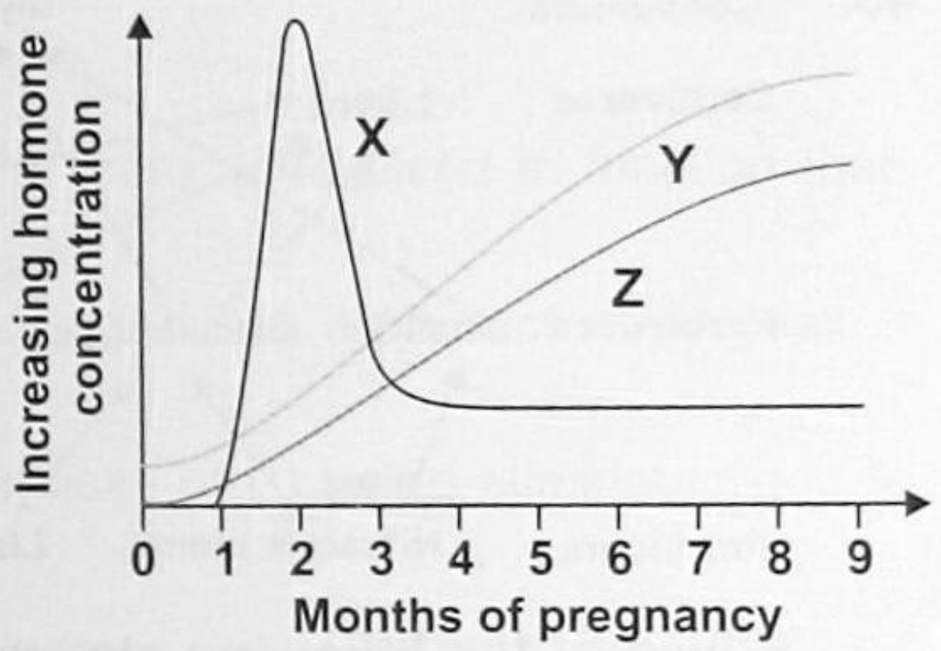
(A) (i) decreases, (ii) sedative, pain killer, (iii) brain, (iv) hallucinogen, depressant, (v) latex

(B) (i) increases, (ii) CO, haem- bound oxygen, (iii) brain, (iv) sedative, painkiller, (v) latex

(C) (i) decreases, (ii) CO, haem- bound oxygen, (iii) brain, (iv) sedative, painkiller, (v) latex

(D) (i) increases, (ii) CO, haem- bound oxygen, (iii) latex, (iv) sedative, painkiller, (v) resin

41. **Refer the given graph showing hormonal secretions by the placenta during pregnancy. Which among the hormones X, Y and Z maintains corpus luteum and has properties similar to luteinizing hormone (LH) ?**



(A) X

(B) Y

(C) Z

(D) X and Y

42. **A city was intensively sprayed with DDT in 1953 in an effort to control houseflies. The number of flies was immediately greatly reduced. Each year thereafter the city was again sprayed with DDT but the flies gradually increased in number until ten years later they were almost as abundant as they were when the control program began. Which one of the following is the most likely explanation?**

(A) Flies from other areas moved in and replaced those killed by DDT

(B) The few flies that were affected by DDT but survived developed resistance to DDT which they passed on to their descendants

(C) The DDT caused new mutations to occur in the surviving flies and this resulted in resistance to DDT

(D) The DDT killed susceptible flies but the few that were naturally resistant lived and reproduced and their offspring repopulated the area

43. **CuT is an intrauterine contraceptive device. From the following mentioned statements select the option that correctly defines the role of Cu.**

(A) Cu ions make uterus unsuitable for implantation

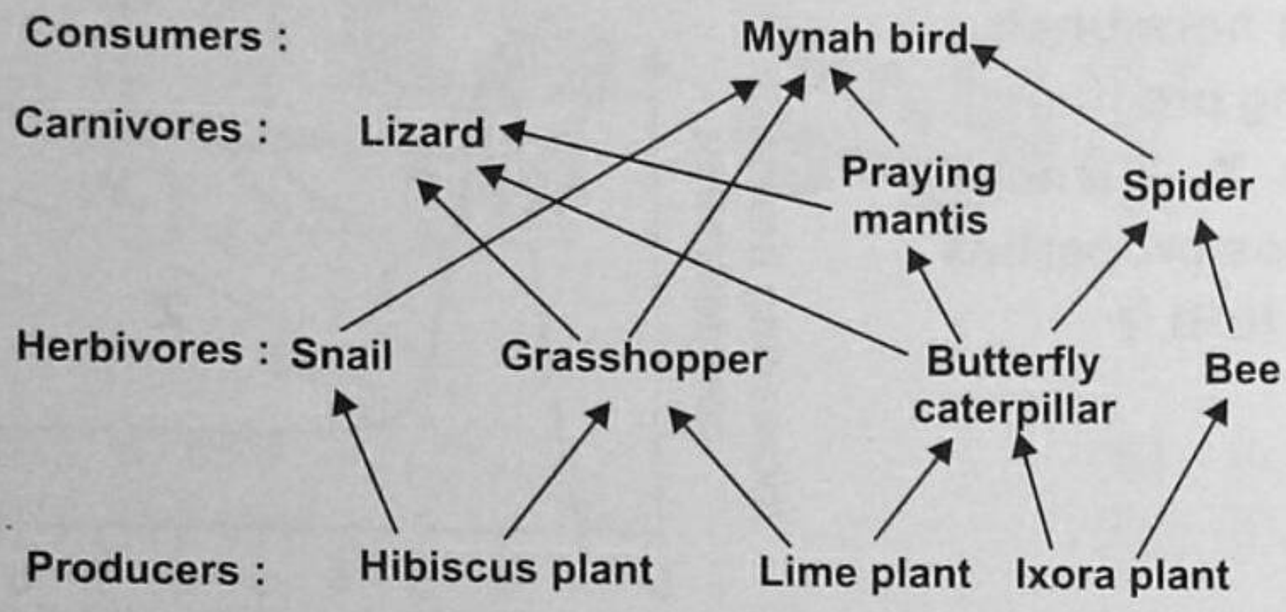
(B) Cu ions suppress sperm motility and the fertilizing capacity of the sperms

(C) Cu ions make cervix hostile to sperms

(D) All of the above

44. **Which one of the following assisted reproductive technologies is correctly defined?**

(A)	Zygote Intra Fallopian transfer	–	Embryos with more than 8 blastomeres are transferred into the Fallopian tube
(B)	Intra-uterine transfer	–	Zygote or early embryos upto 8 blastomeres are transferred into uterus
(C)	Gamete Intra Fallopian transfer	–	Sperm and unfertilized oocyte are transferred into the Fallopian tube
(D)	Intra-cytoplasmic sperm injection	–	Semen collected is artificially injected into uterus

45. 

Which of the following statements is incorrect about the given food web ?

(A) If the mynah bird population is removed, the plant population will eventually decrease.

(B) There are four food chains with only three organisms in each.

(C) All the herbivores are preys.

(D) There are more preys than predators.

46. **Corns with high and low sugar contents were selected and grown separately for the next 40 generations. The graph depicts the results of these lab experiments.**

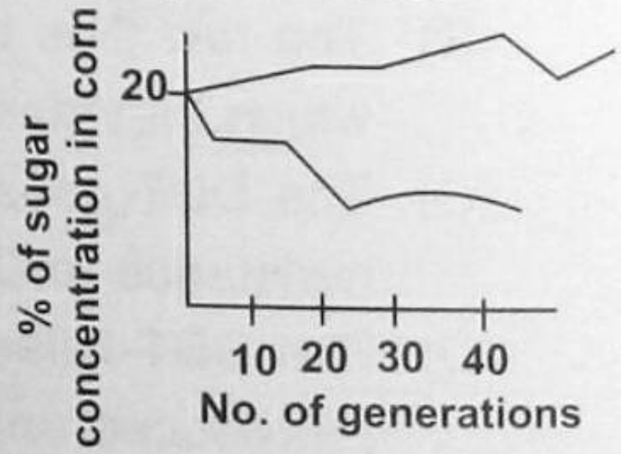
This is an example of:

(A) Stabilizing selection

(B) Directional selection

(C) Disruptive selection

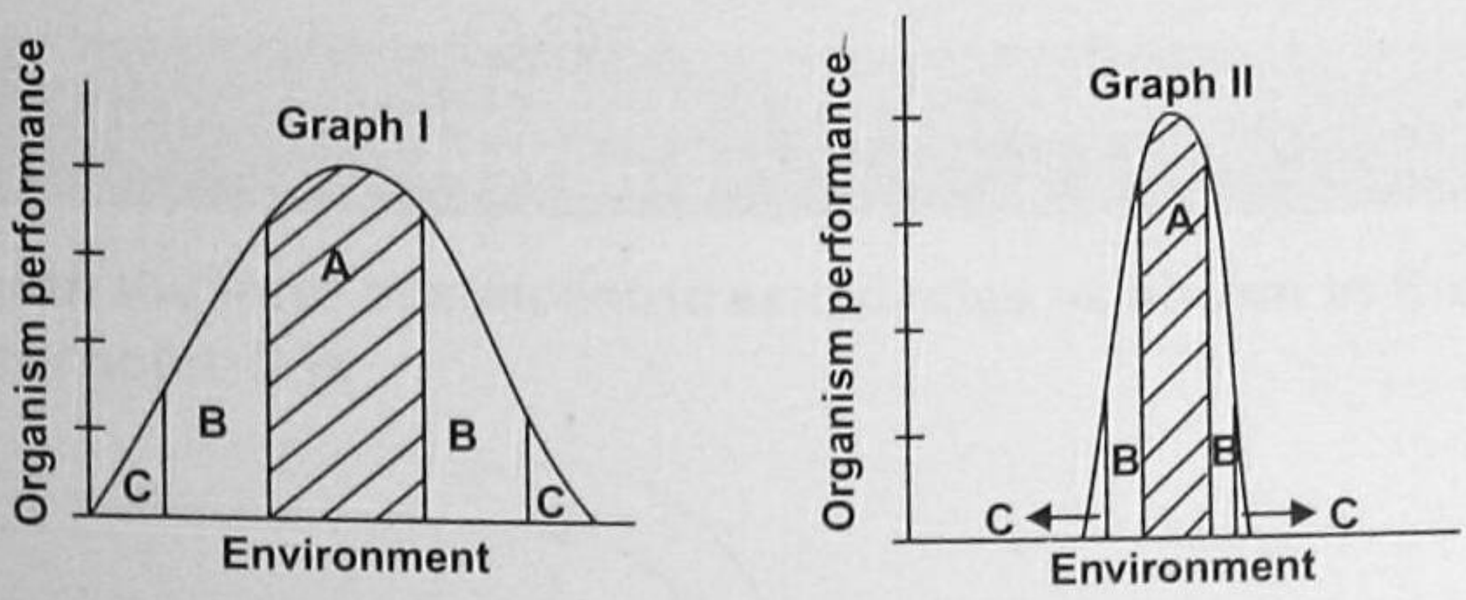
(D) Coevolution



47. **If the fossil record has few or no intermediate forms, if there are long periods in which the fossils underwent no morphological change, and if new forms arose very quickly, then evolution of these new forms would be best described as:**

(A) Punctuated equilibrium
(B) Adaptive radiation
(C) Gradualism
(D) Convergent evolution

48. **Performance of an organism with respect to the environmental conditions is shown below in graphs (I) and (II).**



A: reproduction, A + B: growth and A + B + C: survival

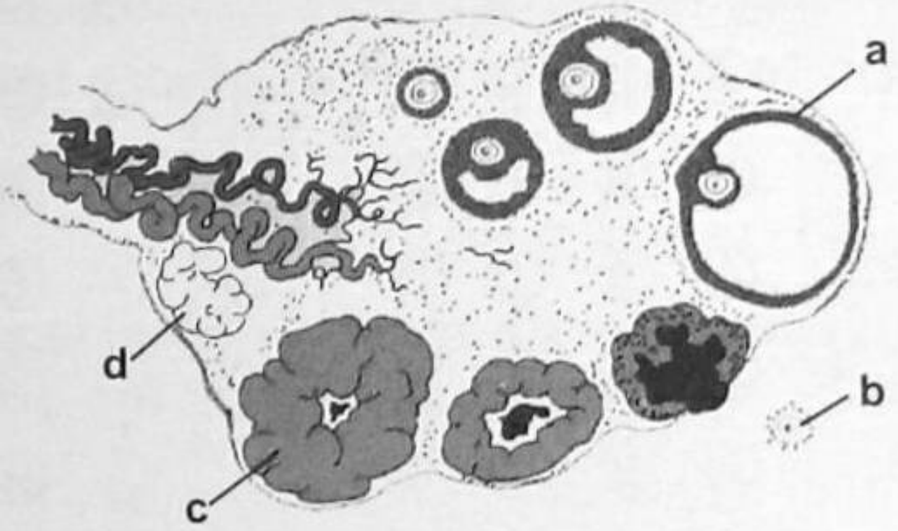
Compare the two graphs. (Assume that both the graphs have identical X and Y axes).

Select the correct interpretation.

(A) Species shown in graph (II) is more evolved and more specialised in function than that shown in graph (I).
(B) Species shown in graph (II) has higher survivorship but less reproductive success.
(C) Both species have identical feeding niche.
(D) If both the species coexist, there are greater chances of (I) being eliminated due to severe competition.

49. **The given figure illustrates a section of human ovary during the reproductive cycle.**

Which of the following statements most accurately describes each structure?



(A) The hormone produced by structure (a) causes thinning of the uterine cervical mucus to allow passage of sperm.
(B) During ovulation, structure (b) stays at the interphase between meiosis I and meiosis II.
(C) The hormone produced by structure (c) stimulates the pituitary gland to secrete luteinizing hormone.
(D) The hormone produced by structure (d) causes the proliferation of the uterine endometrium.

50. Identify the parts labelled as a, b, c and d in the given figure and select the correct option.

	a	b	c	d
(A)	Seed coat	Scutellum	Epicotyl	Hypocotyl
(B)	Seed coat	Scutellum	Hypocotyl	Epicotyl
(C)	Seed coat	Cotyledon	Endosperm	Hypocotyl
(D)	Seed coat	Endosperm	Cotyledon	Hypocotyl