NATIONAL STANDARD EXAMINATION IN BIOLOGY (NSEB) 2015-16 (CODE : B-305)

1. Which of the following figures correctly depicts Anaphase I ?

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

Ans. (a)

2. Which of the following dement s are macronutricnls?
Co, Ba, Mg, S, I. Mn
(a) I and Mn (b) Mg and S (c) Co, Mg and Mn (d) Co and Mn

Ans. (b)

3. Which of the following insects use only one pair of wings for flying?
(a) Butterflies (b) Dragon flies (c) Moths (d) Beetles

Ans. (d)

4. Tissue level of organization is found in:
(a) sea cucumber (b) glass sponge (c) sea anemone (d) comb jelly

Ans. (c)

5. What is true about the deuterostames?
i. Mcsoderm develops from out-pockets of archenteron.
ii. Mouth develops from blastopore.
iii. Cleavage is radial
iv. Cleavage is indeterminate.
(a) only i and ii (b) i, iii and iv (c) only i and iv (d) Only iii and iv

Ans. (b)

6. The bird-like features of archaeopteryx, the missing link between reptiles and birds are:
i. jaws modified into beaks ii. jaws bearing teeth
iii. exoskcleton of feathers iv. spongy bones
v. many tail vertebrae
(a) i, iii and iv (b) i, ii and v (c) i, and iii only (d) ii and iii only

Ans. (c)

7. Animals belonging to the following groups are usually hermaphrodites except:
(a) gastropods (b) oligochaetes (c) crustaceans (d) flarworms

Ans. (c)

8. Sacculina, an ectoparasite on crab, forms root-like extensions that penetrate and destroy gonads of the host. Since the host fails to reproduce, the availability of hosts in future would be less. Yet, til is feature has been selected because it :
(a) provides additional space for the parasite.
(b) reduces vigour of the host.
(c) towers the defenaugments growth of the host
(d) augments growth of the host providing food security to the parasite.

Ans. (d)

9. The chlorophyll molecules are located in the membranes of thybkoids with the porphyrin head towards the protein layer and phytol tail thrust in the lipid layer. This is due to the fact that the phytol tail is:
(a) elongated and can be accommodated in fatty acid chain.
(b) hydrophobic
(c) hydrophilicl
(d) without linked metal ions

Ans. (b)

10. A polycarpellary, apocarpous flower normally gives rise to:
(a) composite fruit (b) aggregate fruit (c) simple fleshy fruit (d) simple dry fruit

Ans. (b)

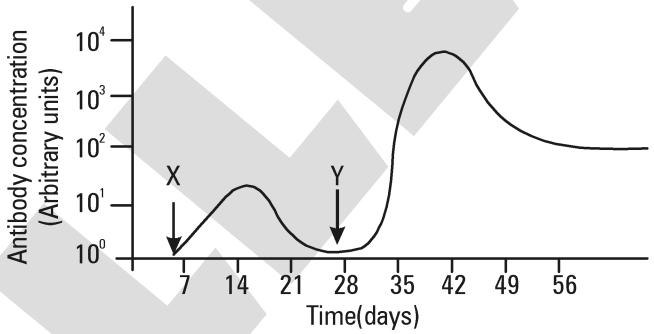
11. Auxin received by a cell causes its elongation through the events given below. Arrange them in the appropriate sequence.
i. Cross-linkages between micro fibri1s are cleaved ii. Turgor pressure works on cell wall
iii. Auxin increases activity of prolon pumps iv. Cell wall becomes acidic
(a) i > iii > ii > i (b) iii > iv > i > ii (c) iii > ii > iv > i (d) iv > iii > i > ii

Ans. (b)

12. Above 40°C most living cells synthesize heal shock proteins (HSP). The best strategy for HSPs to protect the cell would be to:
(a) envelope vital proteins to prevent their denaturation
(b) absorb more water to achieve cooling of the cells
(c) achieve cooling by promoting evaporation of water from the cells
(d) lower the general metabolic rate of the cells to conserve energy

Ans. (a)

13. An exposure to antigen A indicated at 'X' causes rise in concentration of antibodies to A as shown in ihe diagram. What is the event indicated at "Y"?



(a) Exposure to a new antigen B (b) Repeal exposure to antigen A
(c) Immunocompromisation (d) Infusion of ieucocytes

Ans. (b)

14. Anhdrobiotic animals like tardigrades survive long spans of dehydration, Analysis shows accumulation of sugars, particularly a disaccharide trehalose, in the body. The sugar helps in:
i. replacing water that is otherwise associated with proteins and membranes.
ii. maintaining high water potential in the cells.
iii. protecting cell membranes in freezing temperatures
iv. lowering the metabolic rate of the cells,
(a) i and ii (b) ii and iv (c) i and iii (d) iii and iv

Ans. (c)

15. Along the southern rim of the Grand Canyon are found brown tailed Harris's antelope squirrels while the while tailed antelope squirrels inhabit the northern rim, just a few miles across. This variation is caused by:
(a) genetic barrier. (b) geographic barrier (c) climatic barrier (d) physiological barrier

Ans. (b)

16. Australian mole, a marsupial mammal and North American mole, a piacentai mammal arc strikingly similar In adaptations though they are Laxonomkally different. This is a typical case of:
(a) sympatric speciation. (b) sympairic distribution (c) divergent evolution (d) convergent evolution
Ans. (d)

17. Respiration differs from photorespiration as the latter:
(a) takes place only dining day and within the chloroplast
(b) yields less ATP
(c) utilizes ATP
(d) occurs in permisomes
Ans. (d)

18. In a 68nm long DNA molecule, Adeninc constitutes 25%, How many hydrogen bonds would be present between the strands ? (Average length of a nucleotide is 3.4 Angstroms)
(a) 250 (b) 350 (c) 500 (d) Data insufficient
Ans. (c)

19. A plant part absorbs all wavelengths of white light except between 600 and 620 nanometers. In what colour would we perceive the part?
(a) Red (b) Orange (c) Green (d) Blue
Ans. (b)

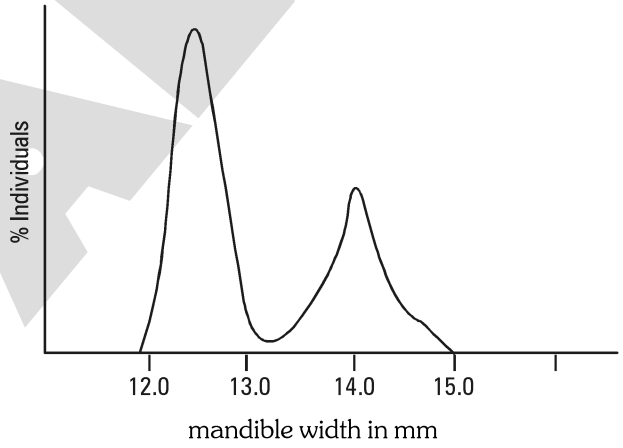
20. A glucose fed yeast cell is moved from an aerobic environment to an anaerobic one. For the cell to continue generating ATP at the same rate, rate of glucose consumption should increase:
(a) 2 times (b) 4 times (c) 19 times (d) 38 times
Ans. (c)

21. Which of the following enzyms involved in Krebs cycle is **not present** in the mitochondrial marix?
(a) Aconitase (b) Malate dehydrogenase (c) Fumarase (d) Succinate dehydrogenase
Ans. (d)

22. In C_2 (photorespiration) cycle, RUBISCO utilizes
(a) CO_2 (b) O_2 (c) $NADPH_2$ (d) Inorganic phosphate
Ans. (b)

23. Assuming independent assortment of characters in the F_2 generation of the F_1 hybrid with a genotype AaBbCcDd, the probability of having the genotypes-AABBCCDD, AaBbCcDd and aabbccdd would be :
(a) 1/256, 1/16, 1/256 (b) 1/64, 2/64, 1/64 (c) 2/256, 4/256, 2/256 (d) 1/128, 4/128, 1/128
Ans. (a)

24. The figure depicts the distribution of width of lower mandible of bills in a population of seed-eating birds. Wider mandibles help them to crack tough seed coats.



Which of the following statement is true?
(a) The population oes not seem to be under any selection pressure
(b) The differences in mandibles are incidental gene variations with no selection consequences
(c) There is directional selection pressure operating within the population
(d) There is disruptive selection pressure operating within the population
Ans. (d)

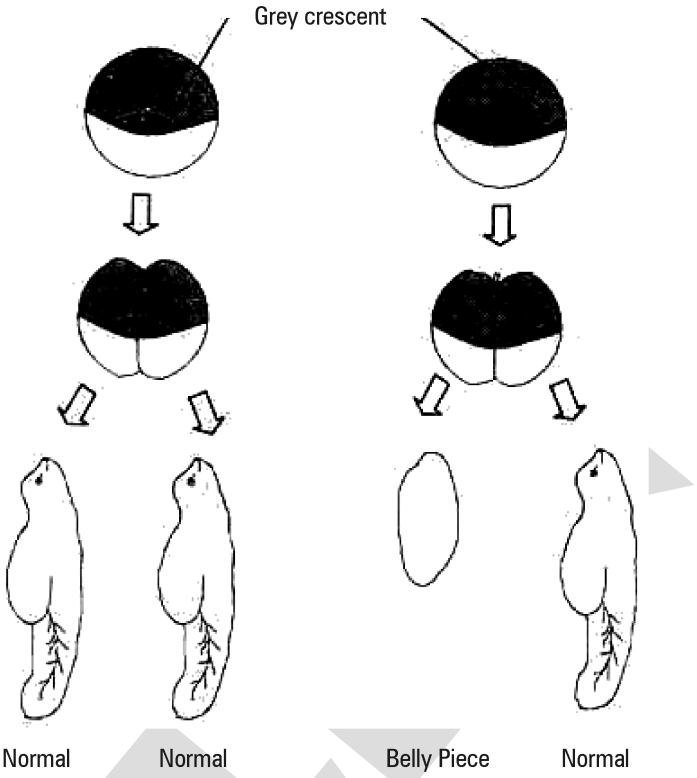
25. A population of fish in a lake as found to consist of two subpopulation with distinct fedding preferences. Limnetic populations that fed predominantly on tiny soft-bodied shrimps n open waters and benthic populations that fed predominantly on hard bodied amphipods near the shore. Which of the following character would most probably belong to the benthic subpopulation

(a) Shorter and narrower body (b) Greater number of gill rackers

(c) Wider mouth (d) Wider paired fins

Ans. (c)

26. FERTILIZED SALAMANDER EGG



The first cleavage of fertilized salamander egg bisects the grey crescent (Fig. X). If the two blastomeres are separated, they produce two normal embryos. If a thread is tied around the egg to confine the grey crescent to one half, then only one normal embryo is formed (Fig. Y). In the context of the above experiment, which of the following statements about totipotency is true?

(a) It is uninfluenced by the plane of cleavage. (b) Entire grey crescent is required for totipotency

(c) It is influenced by determinants in grey crescent (d) It is unaffected by mechanical stress.

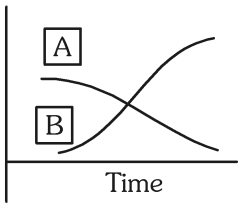
Ans. (c)

27. If both parents have 'B' blood group and their first child has blood group 'O', what is the probability that their second child will have 'B' blood group?

(a) 25% (b) 50% (c) 75% (d) 100%

Ans. (c)

28. Which one of the following relations **cannot** be described by the following graph?



(a) A: dry weight of endosperm in a germinating seed. B: dry weight of embryos in a germinating seed.

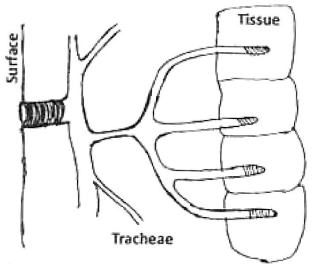
(b) A: reaction temperature in an assay system B: enzyme activity in an assay system.

(c) A: humidity of air B: rate of transpiration from mesophytic plant leaves

(d) A: temperature B: metabolic rate of endotherm.

Ans. (b)

29. The following diagram shows the respiratory system in insects. In resting condition, the tracheoles are filled with a watery fluid diffused from surrounding tissues. The amount of O_2 dissolved in the fluid is enough for normal activity. During rigorous activity, however, lactic acid starts accumulating in the tissues and there is an increased oxygen demand. How does the system meet the excess demand of O_2?



(a) Exercise leads to more diffusion of fluid in tracheoles and it leads to increased gaseous exchange.
(b) The fluid moves from tracheoles to tissues so that more oxygen comes in contact with the tissues.
(c) During rigorous activity skin surface also helps in gaseous exchange along with the tracheolar system.
(d) Increased activity expands the tracheoles which results in increased air contact with tissues.

Ans. (b)

30. Two adjacent plant cells are depicted below. A few statements regarding them are made. Mark the correct statement.

CELL A	CELL B
Ψ = –1200 kPa	Ψ = –800 kPa
Ψ_p = 800 kPa	Ψ_p = 600 kPa
Ψ_s = –2000 kPa	Ψ_s = –1400 kPa

(a) The cell A has a higher water potential than B.
(b) The direction of movement of water by osmosis will be from cell A to cell B.
(c) At equilibrium, the two cells will have a water potential value of –1700 kPa.
(d) Assuming that the solute potentials of the two cells do not change at equilibrium, the pressure potential of cell B will be 400 kPa.

Ans. (d)

31. The support staff in a Zoology lab mixed up the description charts of the following organisms :
X: Rotifer Y: Sea anemone Z: Spider
Description charts :
I: Coelomate with segmented body.
II: Pseudocoelomate with alimentary canal and head having ciliated crown.
III: Diploblastic with gastrovascular cavity.
Desscription charts that match X, Y and Z respectively are :
(a) I, II and III (b) II, III and I (c) III, I and II (d) I, III and II

Ans. (b)

32. A few statements regarding food webs/trophic levels are made. Choose the correct statement.
(a) Trophic efficiencies in an ecosystem must always be higher than production efficiencies.
(b) A small standing crop of primary producers can never support a larger standing crop of primary consumers in any aquatic ecosystem.
(c) The amount of chemical energy in the consumer's food that is converted to their own biomass during a given period is called the primary production of the ecosystem.
(d) Most biomass (dry organic weight) pyramids show a sharp decrese in biomass at successively higher trophic levels.

Ans. (d)

33. Absence of cartilage, absence of ciliated epithelium, presence of minimal smooth muscles and presence of thin flattened squamous epithelium are the features of which of the following parts of the respiratory system?
(a) Trachea (b) Bronchi (c) Alveolar duct (d) Alveoli
Ans. (c)

34. According to 'evo-devo' hypothesis of evolution of flowering plants proposed by Michael Frohlich, microsporophylls, through mutation, developed ovules and formed carpels. The evidence in support of this is that
i. flower-development genes of angiosperms are homologous to the microsporohyll development genes of gymnosperms.
ii. in tomato, asciated (ff) mutation leads to development of extra floral organs.
iii. in ABC model of development of flower, activation of B and C genes result in differentiation of staments while that of only C gene leads to differentiation of carpels.
(a) ii and iii (b) i & ii (c) i & iii (d) only i
Ans. (c)

35. Ciliary feeding is observed in :
i. Rotifer ii. Paramoecium
iii. Hydra vi. Bivalve v. Sabella (marine polychaete)
(a) iii, iv and v (b) i, ii, iv & v (c) only i, ii & v (d) only ii and iv
Ans. (b)

36. In amniotic egg, the exchange of gases between embryo and air is facilitated by :
(a) albumen (b) allantois (c) chorion (d) yolk sac
Ans. (c)

37. Branches of root, unlike those of stem, are difficult to break off since they are produced by growth from:
(a) ground tissue (b) stele. (c) epidermis (d) hypodermis
Ans. (b)

38. In the leaves of strawberry, water appears to be exuded through leaf margins. This is due to the combination of:
i. adhesion ii. root pressure iii. transpiration iv. guttation
(a) i, ii and iii (b) ii, iii and iv (c) i, ii, and iv (d) only i & iv
Ans. (c)

39. Which of the following is an example of endosymbiosis?

(a) Amoeba (b) Bacteria (c) Macrophage (d) Eukaryotic cell
Ans. (d)

40. Which of the following is not a structural protein?
(a) Fibrin (b) Albumin (c) Collagen (d) Keratin
Ans. (b)

41. Which of following processes occurring in the stomach is autocatalysis?
(a) Low pH denaturing the proteinaceous substances in food.
(b) Low pH activating pepsinogen to pepsin.
(c) Absorption of monomeric molecules in chyme.
(d) Pepsin activating more pepsinogen molecules.
Ans. (d)

42. Which of the following results in inclusive fitness?
i. Altruism ii. Kin selection iii. Parental care iv. Batesian Mimicry
(a) i, ii, iii and iv (b) only i and ii (c) only i and iii (d) only ii and iv
Ans. (b)

43. Sperms contribute to the development of zygote by providing:
(a) cytoplasm. (b) centrioles.
(c) nutrients (d) required activation enzymes.
Ans. (b)

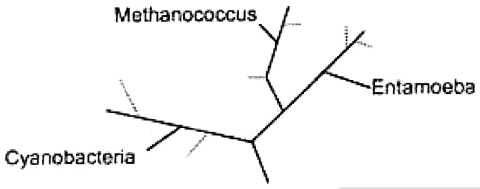
44. If an aberration causes change in the onder of genes on a chromosome but does not alter linkage, it is a case of:
(a) deletion. (b) inversion. (c) translocation. (d) transposition.
Ans. (c)

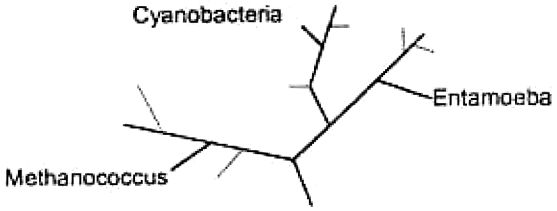
45. Which of the following **<u>will not be</u>** affected by RNAse?
(a) Smaller subunit of ribosome (b) Larger subunit of ribosome.
(c) Amino acyl tRNA transferase. (d) Nucleolus in interphase.
Ans. (c)

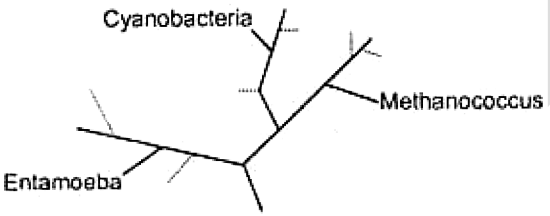
46. An effective strategy to extend the shelf life of fruits is by knocking out genes for
(a) ATP synthesis. (b) Phosphate kinase synthesis
(c) Auxin synthesis. (d) Ethylene synthesis.
Ans. (d)

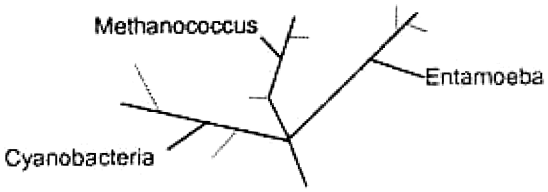
47. The minimum concentration of essential elements below which plant growth is retarded is the :
(a) Optimum concentration (b) LC_{50}
(c) Critical concentration, (d) Inhibitory concentration.
Ans. (c)

48. The three-domain phytngenetic classification of life is based on differences in 163 rRNA genes. It is correctly depicted in:

(a)


(b)


(c)


(d)


Ans. (a)

49. The flow of water from soil to xylem of the root is shown below:
Soil → Root hair → Cortex → X → Pericycle → Y → Metaxylem
The tissues X and Y respectively are:
(a) Hypodermis and Proloxylem. (b) Medullary rays and Protophloem.
(c) Endodermis and Protoxylem. (d) Endodermis and Protophloem.
Ans. (c)

50. In C_4 plants, dimorphism of chloroplasts is an adaptation to:
(a) absorb light efficiently (b) absorb light in blue-violet and red regions,
(c) carry out cyclic and non cyclic electron transfer (d) minimize photorespiration
Ans. (d)

51. All of the following organeles are surrounded by one or more membranes, **except**:
(a) Peroxisomes (b) Vacuoles (c) Ribosomes (d) Mitochondria
Ans. (c)

52. Which of the following descriptions correctly apply to the amino acid distribution in a typical transmembrane protein?

(a) Hydrophobic amino acids towards the outer sides of bilayer while hydrophilic amino acids in the interior of the bilayer

(b) Hydrophilic amino acids towards the outer sides of bilayer white hydrophobic amino acids in the interior of the bilayer.

(c) Hydrophilic amino acids towards the extracellular and interior of bilayer whereas hydrophobic amino acids in the cytoplasmic side.

(d) Hydrophilic ammo acids towards cytoplasmic side of bilayer while extracellular side has hydrophobic amino acids.

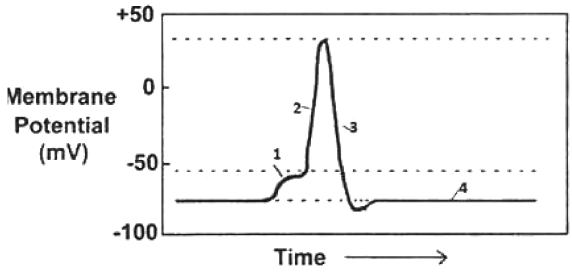
Ans. (b)

53. Which of the following structures facilitate the transport of materials between two cells ?

i. Desmosome	ii. Tight junction	iii. Gap junction	iv. Plasmodesmata
(a) i & ii only	(b) ii & iv only	(c) i, iii & iv only	(d) i, ii & iii only

Ans. (c)

54. A typical action potential curve in a neuronal cell is shown in the following diagram.



Each number represents different event occurring during generation of an action potential. I represents opening of sodium channels while 4 represents closing of sodium channels. Which one of the following best describes 2 and 3?

(a) 2- voltage gated sodium channels open, 3- potassium channels close.

(b) 2- voltage gated sodium channels open, 3- potassium channels open.

(c) 2- voltage gated potassium channels close, 3-sodium channels open.

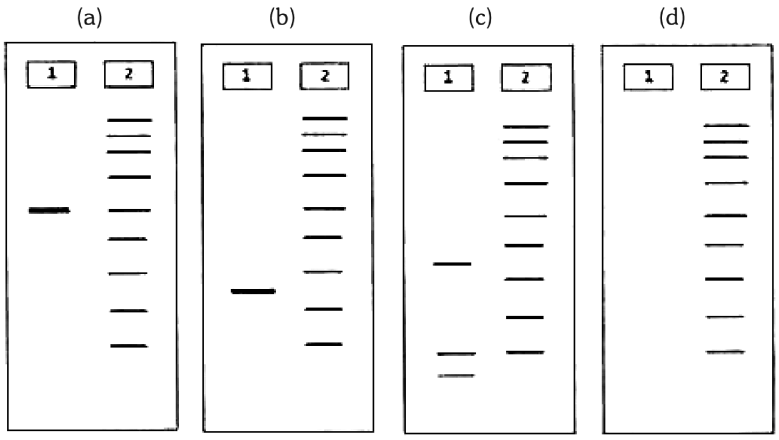
(d) 2- voltage gated potassium channels open, 3- voltage gated sodium channels open.

Ans. (b)

55. A research student was using a plasmid (5kb in size) with ampocillin resistance gene and one restriction site each for EcoRl and Bam HI enzymes. He transformed this pasmid into wild type E.coli bacteria and allowed the bacteria to grow in medium containing ampicillin. He then performed plasmid extraction and digested the plasmid with EcoRI and Bam HI enzyme.

Which of the folloowing gel pictures could be the result of his experiment?

(Nate: Lane 2 represent 1kb ladder ranging from 1kb-9kb with 1 kb increment)



Ans. (c)

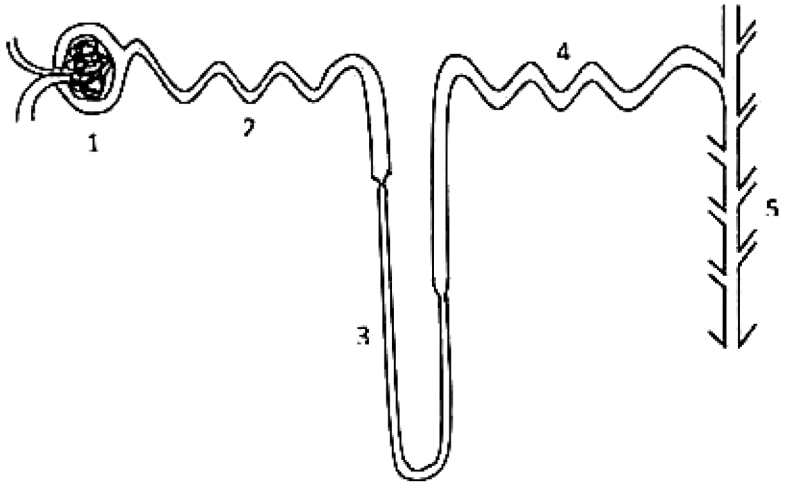
56. Many plants growing in arid regions possess thorns so as to:
(a) minimize iranspiratory water loss, (b) dissuade herbivores from feeding on them.
(c) attract pollinators by their peculiar arrangements. (d) increase the surface area for exchange of gases.

Ans. (a)

57. Cell inclusions like calcium carbonate or oxalatc crystals found in plant cells occur in:
(a) Mitochondria (b) Chloroplasts (c) Golgi bodies (d) Vacuoles

Ans. (d)

58. In the accompanying diagram of a human ncphron the functional parts are labeled with nxnnbers 1-5, Active secretion of protons into the lumen is a function of:



(a) 3, 4 and 5 (b) Only 2 and 4 (c) Only 4 (d) Only 5

Ans. (b)

59. Activation of the sympathetic nervous system corresponds in arousal and energy generation- the so called "fight and flight"- response, Which of the following is an example of this?
(a) Stimulation of activity of the stomach and intestine.
(b) Stimulation of salivary glands.
(c) Stimulation of glucose release Irani liver.
(d) Constriction of bronchi in the lungs,

Ans. (c)

60. No virus can evolve to target mammalian red blood edls because of the:
(a) small size with a biconcave shape, (b) high concentration of oxygen.
(c) lack of aerobic pathway to generate ATP. (d) lack of nuclear material.

Ans. (d)

61. Which of the following organdies are involved in fatty acid catabolism?
i. Mitochondria
ii. Pcroxisomcs
iii. Granular endoplasmic reticulum
iv. Lysosomes
(a) ii & iii (b) i & ii (c) i only (d) all the four

Ans. (b)

62. Following is the data of recombination frequency of a few gene pairs:

- X & Y 30%
- P & Q 50%
- T & S 44%

Mark the correct statement/s

i. Each of the above gene pairs must be located on the same chromosome.

ii. Genes X &. Y are cbsely ptaced than T & S.

iii. Recombinanl frequency arc indicative of admit physical distances between the genes.

(a) i & ii (b) ii & iii (c) i & iii (d) only ii

Ans. (d)

63. Which of the following would be the effects of increase in the body temperature of a mammal ?

i. Vasodilation of arterioles in the skin. ii. Flattening of body hair.

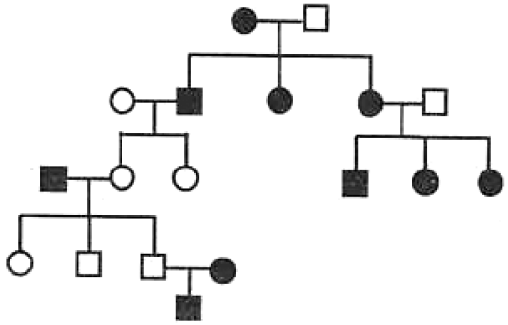
iii. Decreased blood flow to skin. iv. Evaporation from body surface.

v. Decreased activity of sebaaceous glands.

(a) i and ii only (b) i iii and v (c) iii and iv only (d) i, ii and iv

Ans. (d)

64. Study the followrng pedigree The transmission of the trait indicates :



(a) X-linked inheritancc (b) Autosomal dominance

(c) Autosomal recessive type (d) Mitochondiral inheritance

Ans. (d)

65. If one compares physiology of an elephant and cat, then :

(a) the heart beats per minute of a cat will be higher than an elephant

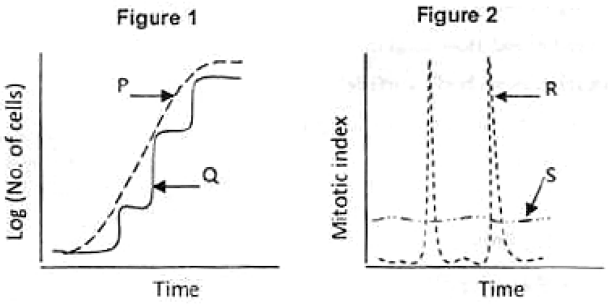
(b) the total heart beats in the lifetime of an elephant will be many times that of a cat

(c) both cat and elephant will show heart rate greater than a chicken

(d) elephant will show greater surface to volume ratio as compared to a cat

Ans. (a)

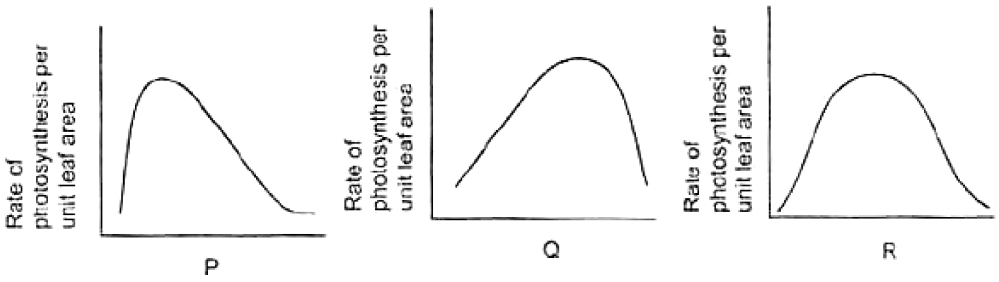
66. The growth curves of a random and a synchronous culture are depicted in Figure 1 while Figure 2 depicts the mitotic indices for the same two cultures. Which alphabets reprcsent the synchronous culture?



(a) P and R (b) Q and R (c) P and S (d) Q and S

Ans. (b)

67. When the rate of photosynthesis per unit leaf area is measured for three different variables (P, Q and R), three graphs are obtained as shown below.



Which is the most appropriate statement?
(a) P indicats CO_2 levels.
(b) Q indicates témperature.
(c) R indicates light intensity
(d) Both P and Q indicate CO_2 levels for C_4 and C_3 plants respctively.

Ans. (b)

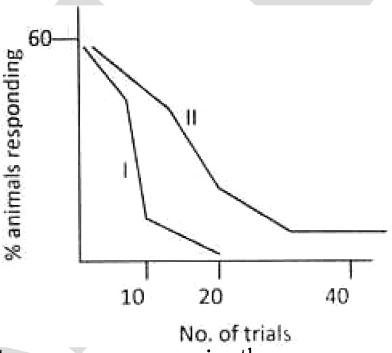
68. When Hyas araneus, a sea crab, is placed in dilute sea water, for some lime it swells and gains weight. Thereafter it slowly starts losing weight. While losing weight, if it is transferred back to normal sea water, it will :
(a) further lose weight, (b) swell again,
(c) die as it is a non-con former. (d) remain iso-osmotic to external medium by losing salts.

Ans. (a)

67. If an organism has to acquire atmospheric oxygen by a process of passive diffusion alone, then:
(a) it is likely to be aquatic than a land dwelling one.
(b) a body of spherical shape will be advantageous over any other shape-
(c) the metabolism will be hampered for a large body of cylindrical shape,
(d) it can either be a prokaryote or a eukaryote with a diploblastic body,

Ans. (a)

70. Oxygen dissociation curves for two types of haemoglobin molecules P and Q below. Select the correct interpretation.



(a) Haemoglobin P is more efficient as an oxygen carrier than as an oxygen store.
(b) At elevated temperatures, curve for P will shift towards curve for Q.
(c) P is more effective in unloading oxygen at very low partial pressures.
(d) Haemoglobin P is likely to be present in actively metabolising tissues.

Ans. (b)

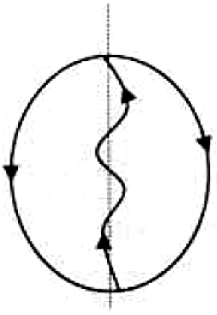
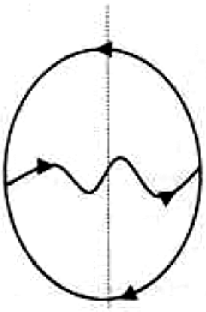
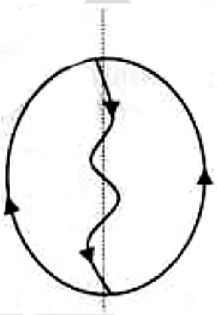
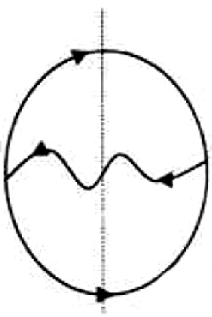
71. Inulin is a plant polysaccharide. It can pass in ultrafiltrate but is neither secreted nor re-absorbed by tubules, Hence, ratio of its concentration in urine/blood is 1. Mark the correct statement/s
i. Substance that is filtered as well as secreted by tubules will show urine/blood , ratio lower than that for inulin
ii. Inulin can be used to study activity of tubules
iii. Glucose will show lower urine/blood ratio than inulin.
iv. Inulin can be used to study rate of ultrafiltration.
(a) I and II (b) ii and iv (c) iii and iv (d) Only iii

Ans. (c)

72. The polychaete, Nereis pelagica lives in brackish mud and feeds by protruding its head, II responds To external stimuli by retracting into its burrow
Response of this invertebrate to two stimuli namely mechanical shock (I) and moving shadow ()!} are shown.
Which of the following are the correct interpretations?
i. Stimulus I is stronger than II.
ii. Response to I and II both indicate habituation.
iii. Stimulus II is more likely to be encountered in the life time of the organism.
iv. The organism can discriminate between, various stimuli.
v. The change in lire response to repeated stimulation is innate behavior.
(a) i, ii_i and v (b) only ii and iv (c) only i and v (d) ii, iii and iv

Ans. (a)

73. On a summer morning, at 6 a.m., a honey bee located a nectar source in the same direction as the rising sun. It went back to the hive and performed a waggle dance which lasted for several hours. What will be the direction of the waggle dance at 6 p.m.?

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

Ans. (c)

74. If the triplet base sequence for an ami no acid in DNA is TTT, what will be the anticodon for ii?
(a) UUU (b) AAA (c) TTT (d) CCC

Ans. (a)

75. Which of the following individuals will produce 16 types of gametes?
(a) AaBbccDdceFF (b) AaBbccDDEeFf (c) AaBbCcddEEFF (d) AaBbCcDDEeFf

Ans. (b)

76. If the frequency of a dominant phenotype in a stable population is 75%, the frequency of the recessive allele in that population would be;
(a) 25% (b) 35.5% (c) 50% (d) 75%

Ans. (c)

77. When a compound 'X' is added to an in-vitro transcription system, a sudden decrease in mRNA synthesis rate was observed. 'X' could most likely be:
(a) streptomycin (b) puromycin (c) Na_2EDTA (d) dNTP

Ans. (c)

78. What is true for a hypoglycemic hormone?
(a) Promotes glycogenolvsis. (b) Prevents glycogenesis.
(c) Prevents glucose from entering the body cells. (d) Prevents

Ans. (d)

79. Which is a false statement?
(a) cDNA is produced from mRMA.
(b) cDNA lacks introns.
(c) cDNA cannot be expressed outside a eukaryotic cell,
(d) cDNA is much shorter than the concerned gene In the genome.

Ans. **(c)**

80. Suppose a population of organisms with 500 gene loci is fixed a I half of these leci and has two alleles at each of the remaining loci. How many alleles are found in its gene pool?
(a) 250 (b) 500 (c) 750 (d) 1000

Ans. **(b)**

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