WARNING :	Any malpractice or any attempt to commit any kind of malpractice in the Examination will DISQUALIFY THE CANDIDATE.

PAPER – II BIOLOGY

Version Code	B1	Question Booklet Serial Number :	
Time : 150 Minutes		Number of Questions : 120	Maximum Marks : 480
Name of Candidate			
Roll Number			
Signature of Candidate			

INSTRUCTIONS TO THE CANDIDATE

1. Please ensure that the **VERSION CODE shown at the top of this Question Booklet is the same as that shown in the OMR Answer Sheet issued to you.** If you have received a Question Booklet with a different **VERSION CODE**, please get it replaced with a Question Booklet with the same VERSION CODE as that of the OMR Answer Sheet from the invigilator. **THIS IS VERY IMPORTANT.**
2. Please fill in the items such as name, signature and roll number of the candidate in the columns given above. Please also write the Question Booklet Sl. No. given at the top of this page against item 4 in the OMR Answer Sheet.
3. Please read the instructions given in the OMR Answer Sheet for marking answers. Candidates are advised to strictly follow the instructions contained in the OMR Answer Sheet.
4. This Question Booklet contains 120 questions. For each question, five answers are suggested and given against (A), (B), (C), (D) and (E) of which, only one will be the **Most Appropriate Answer**. Mark the bubble containing the letter corresponding to the 'Most Appropriate Answer' in the OMR Answer Sheet, by using either **Blue or Black ball-point pen only.**
5. Negative Marking: In order to discourage wild guessing, the score will be subject to penalization formula based on the number of right answers actually marked and the number of wrong answers marked. Each correct answer will be awarded FOUR marks. One mark will be deducted from the total score for each incorrect answer. More than one answer marked against a question will be deemed as incorrect answer and will be negatively marked.

IMMEDIATELY AFTER OPENING THIS QUESTION BOOKLET, THE CANDIDATE SHOULD VERIFY WHETHER THE QUESTION BOOKLET ISSUED CONTAINS ALL THE 120 QUESTIONS IN SERIAL ORDER. IF NOT, REQUEST FOR REPLACEMENT.

DO NOT OPEN THE SEAL UNTIL THE INVIGILATOR ASKS YOU TO DO SO.

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PLEASE ENSURE THAT THIS BOOKLET CONTAINS 120 QUESTIONS SERIALLY NUMBERED FROM 1 TO 120.
(Printed Pages : 32)

1. Which of the following statements regarding growth is false?
   (A) Increase in mass and increase in number of individuals are twin characteristics of growth.
   (B) In plants, growth by cell division is seen only upto a certain stage.
   (C) Growth exhibited by non-living objects is by accumulation of material on the surface.
   (D) A multicellular organism grows by cell division.
   (E) Growth in *in vitro* culture of unicellular organisms can be observed by counting the number of cells.

2. Match Column I with Column II and choose the correct option.

	Column I		Column II
(a)	Ernst Mayr	(1)	Discovered viroids
(b)	Whittaker	(2)	Gave the name virus
(c)	Pasteur	(3)	Proposed Five Kingdom classification
(d)	Diener	(4)	Darwin of the 20th century

   (A) a - 4, b - 3, c - 2, d - 1. (B) a - 3, b - 4, c - 2, d - 1.
   (C) a - 2, b - 3, c - 4, d - 1. (D) a - 1, b - 2, c - 3, d - 4.
   (E) a - 4, b - 3, c - 1, d - 2.

3. I. Unicellular, colonial, filamentous, marine or terrestrial forms
   II. The colonies are surrounded by a gelatinous sheath
   III. Some can fix atmospheric nitrogen in specialised cells called heterocysts
   IV. They often form blooms in water bodies
   These above characters are seen in
   (A) Archaebacteria (B) Cyanobacteria
   (C) Chrysophytes (D) Dinoflagellates (E) Slime moulds

4. Consider the following statements.
   (i) Genus comprises a group of related species
   (ii) Taxon represents a taxonomic group of individual organisms
   (iii) Family comprises a group of related genera
   (iv) Taxonomic category class includes related orders
   Of the above statements
   (A) (i), (ii), and (iv) are correct (B) (ii) and (iv) are correct
   (C) (i), (iii) and (iv) are correct (D) (ii), (iii) and (iv) are correct
   (E) (i), (ii) and (iii) are correct

5. Pick out the wrong statement

(A) Lichens are symbiotic associations.
(B) Lichens are very good pollution indicators.
(C) Lichens do not grow in unpolluted areas.
(D) The algal component of lichen is known as phycobiont.
(E) The fungal component of lichen is known as mycobiont.

6. Match the following and choose the correct combination from the options given.

	Column I (Common Name)		Column II (Taxonomic Category-Family)
(a)	Man	(1)	Poaceae
(b)	*Datura*	(2)	Anacardiaceae
(c)	Mango	(3)	Solanaceae
(d)	Wheat	(4)	Hominidae

(A) a - 4, b - 3, c - 2, d - 1.
(B) a - 4, b - 3, c - 1, d - 2.
(C) a - 1, b - 2, c - 3, d - 4.
(D) a - 1, b - 3, c - 2, d - 4.
(E) a - 3, b - 4, c - 1, d - 2.

7. Match the following and choose the correct combination from the options given.

	Column I (Fungus Name)		Column II (Commonly called)
(a)	*Puccinia*	(1)	Yeast
(b)	*Ustilago*	(2)	Mushroom
(c)	*Agaricus*	(3)	Smut fungus
(d)	*Saccharomyces*	(4)	Rust fungus

(A) a - 1, b - 2, c - 3, d - 4.
(B) a - 2, b - 3, c - 4, d - 1.
(C) a - 3, b - 4, c - 1, d - 2.
(D) a - 4, b - 3, c - 2, d - 1.
(E) a - 4, b - 3, c - 1, d - 2.

8. Which of the following taxonomic category of housefly is wrongly matched?

(A) Genus - *Musca*
(B) Family - Muscidae
(C) Order - Primata
(D) Class - Insecta
(E) Phylum - Arthropoda

9. Which of these is not a character of Bryophytes?

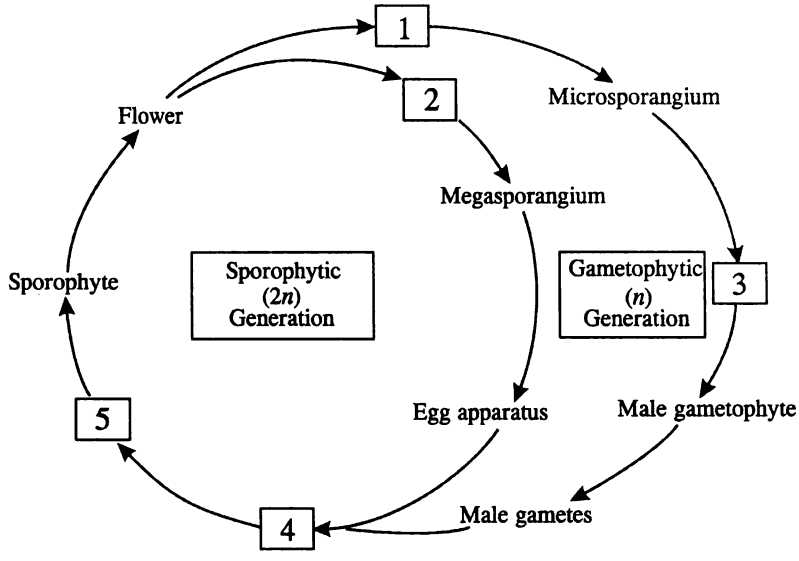
(A) The main plant body is haploid.
(B) They possess multicellular sex organs.
(C) They need water for sexual reproduction.
(D) They colonise rocks and are of great ecological significance.
(E) They possess well differentiated vascular tissues.

10. I. In Rhodophyceae, food is stored in the form of mannitol and laminarin.
II. The ovules of Gymnosperms are not enclosed by ovary wall.
III. *Salvinia* is heterosporous.
IV. In the diplontic life-cycle, the free living gametophyte represents the dominant phase.

Of the above statements

(A) II and III are correct but I and IV are wrong.
(B) II and IV are correct but I and III are wrong.
(C) III and IV are correct but I and II are wrong.
(D) I and II are correct but III and IV are wrong.
(E) I and IV are correct but II and III are wrong.

11. The diagram represents the life cycle pattern of an angiosperm. Choose the correct combination of labelling numbered as 1 to 5.



(A) 1. Anther 2. Ovary 3. Microspore 4. Zygote 5. Embryo
(B) 1. Embryo 2. Zygote 3. Anther 4. Ovary 5. Microspore
(C) 1. Ovary 2. Anther 3. Microspore 4. Zygote 5. Embryo
(D) 1. Anther 2. Ovary 3. Zygote 4. Embryo 5. Microspore
(E) 1. Zygote 2. Embryo 3. Anther 4. Ovary 5. Microspore

12. Consider the following statements regarding the root system of angiosperms.

I. In monocots, the fibrous root system arises from the base of the stem.
II. The region of elongation is called the root hair region.
III. In sweet potato, the adventitious roots get swollen and store food.
IV. The stems of maize and sugarcane have supporting roots called prop roots.

(A) I and II are correct but III and IV are wrong.
(B) II and III are correct but I and IV are wrong.
(C) II and IV are correct but I and III are wrong.
(D) I and III are correct but II and IV are wrong.
(E) IV is correct but I, II and III are wrong.

13. I. Pulvinus leaf base is present in some leguminous plants.
II. Whorled phyllotaxy is seen in *Calotropis*.
III. In Australian acacia, the petioles expand, become green and synthesise food.
IV. A bud is present in the axil of leaflets of the compound leaf.

Of the above statements

(A) I and IV are correct but II and III are wrong.
(B) II and III are correct but I and IV are wrong.
(C) I and III are correct but II and IV are wrong.
(D) III and IV are correct but I and II are wrong.
(E) II and IV are correct but I and III are wrong.

14. When one is a fodder plant, the other is a medicinal plant. They are

(A) *Sesbania* and belladonna
(B) *Trifolium* and *Petunia*
(C) Lupin and *Colchicum*
(D) *Aloe* and *Trifolium*
(E) *Indigofera* and *Asparagus*

15. Stem tendrils are seen in

(A) *Citrus* and *Bougainvillea*
(B) *Citrus* and Watermelon
(C) *Cucumber* and Pumpkins
(D) *Opuntia* and *Bougainvillea*
(E) *Pistia* and *Eichhornia*

16. Match the following and choose the correct combination from the options given.

	Column I: Position of floral parts on thalamus		Column II: Represented in
(a)	Hypogynous	(1)	Ray florets of sunflower
(b)	Perigynous	(2)	Brinjal
(c)	Epigynous	(3)	Peach

(A) a - 2, b - 1, c - 3.
(B) a - 1, b - 2, c - 3.
(C) a - 3, b - 2, c - 1.
(D) a - 3, b - 1, c - 2.
(E) a - 2, b - 3, c - 1.

17. In one tissue, the cells are isodiametric, walls are thin and made up of cellulose and the other consists of long, narrow cells with thick and lignified cell walls. They are
(A) Parenchyma and collenchyma.
(B) Parenchyma and sclerenchyma.
(C) Sclerenchyma and collenchyma.
(D) Collenchyma and parenchyma.
(E) Sclerenchyma and parenchyma.

18. Which one of the following is correct explanation for the floral formula
% ♂ $K_{(5)}$ $C_{1+2+(2)}$ $A_{(9)+1}$ $\underline{G}_1$?
(A) Zygomorphic, bisexual, sepals five and gamosepalous, petals five and papilionaceous, anthers ten and monadelphous, ovary superior and monocarpellary.
(B) Zygomorphic, unisexual, sepals five and gamosepalous, petals five and polypetalous, anthers nine united and one free, ovary superior and monocarpellary.
(C) Zygomorphic, bisexual, sepals five and gamosepalous, petals five and papilionaceous, anthers ten and diadelphous, ovary superior and monocarpellary.
(D) Zygomorphic, bisexual, sepals five and united, petals five and united, anthers ten and diadelphous, ovary superior and monocarpellary.
(E) Zygomorphic, unisexual, sepals five and polysepalous, petals five and polypetalous, anthers ten and diadelphous, ovary superior and monocarpellary.

19. Which of the following is the characteristic feature of androecium of *Pisum sativum?*
(A) Ten stamens, diadelphous and dithecous anther.
(B) Five stamens, diadelphous and monothecous anther.
(C) Five stamens, epipetalous and dithecous anther.
(D) Six stamens, epipetalous and dithecous anther.
(E) Ten stamens, epipetalous and dithecous anther.

20. Match Column I with Column II and choose the correct option.

	Column I		Column II
(a)	Bulliform cells	(1)	Initiation of lateral roots
(b)	Pericycle	(2)	Root
(c)	Endarch xylem	(3)	Grasses
(d)	Exarch xylem	(4)	Dicot leaf
(e)	Bundle sheath cells	(5)	Stem

(A) a - 3, b - 5, c - 4, d - 1, e - 2.
(B) a - 2, b - 5, c - 1, d - 3, e - 4.
(C) a - 2, b - 4, c - 1, d - 3, e - 5.
(D) a - 3, b - 1, c - 5, d - 2, e - 4.
(E) a - 5, b - 4, c - 2, d - 1, e - 3.

21. Consider the following statements.

(a) Xylem transports water and minerals.
(b) Gymnosperms lack sieve tubes and companion cells in phloem.
(c) The first formed primary xylem is called metaxylem.
(d) Phloem fibres (bast fibres) are made up of collenchymatous cells.

Of the above statements

(A) (a) and (c) alone are correct
(B) (a) and (b) alone are correct
(C) (c) and (d) alone are correct
(D) (a) and (d) alone are correct
(E) (b) and (c) alone are correct

22. The term bark refers to

(A) Primary and secondary phloem only.
(B) Periderm, secondary phloem and vascular cambium only.
(C) Secondary xylem and cambium only.
(D) Periderm only.
(E) Periderm and secondary phloem only.

23. Match the following and choose the correct combination from the options given.

	Column I: Cell type		Column II: Size
(a)	Viruses	(1)	1-2 μm
(b)	PPLO	(2)	10-20 μm
(c)	Eukaryotic cell	(3)	About 0.1 μm
(d)	Bacterium	(4)	0.02 - 0.2 μm

(A) a - 1, b - 2, c - 3, d - 4.
(B) a - 4, b - 3, c - 2, d - 1.
(C) a - 1, b - 3, c - 2, d - 4.
(D) a - 4, b - 2, c - 3, d - 1.
(E) a - 3, b - 4, c - 2, d - 1.

24. Select the wrong statement of a bacterial cell

(A) Mesosome is formed by the extensions of plasma membrane into the cell.

(B) The pili are elongated tubular structures made up of a protein.

(C) Flagellum is composed of filament, hook and basal body.

(D) Ribosomes are about 30 nm by 50 nm in size.

(E) The fimbriae are small bristle like fibres sprouting out of the cell.

25. Consider the following statements.

(a) The endomembrane system includes mitochondria, chloroplast and peroxisomes.

(b) Smooth endoplasmic reticulum is the major site for synthesis of lipid.

(c) Rough endoplasmic reticulum is actively involved in protein synthesis.

(d) Mitochondrial matrix possesses single circular DNA, a few RNA and 80S ribosomes.

Of the above statements

(A) (a) and (b) alone are correct (B) (a) and (c) alone are correct

(C) (b) and (d) alone are correct (D) (c) and (d) alone are correct

(E) (b) and (c) alone are correct

26. Select the matched ones.

(a) Amyloplasts - store proteins

(b) Mitochondrion - 'powerhouse' of the cell

(c) Stroma - chlorophyll pigment

(d) Axoneme - 9 + 2 array

(A) (a) and (c) only (B) (b), (c) and (d) only

(C) (c) and (d) only (D) (a) and (d) only

(E) (b) and (d) only

27. I. It is a membrane bound space found in the cytoplasm.

II. It is bound by a single membrane called tonoplast.

III. It contains water, sap, excretory products and other materials not useful to the cell.

IV. It has higher concentration of sap than the cytoplasm.

The above statements apply to

(A) Golgi apparatus (B) Lysosomes

(C) Endoplasmic reticulum (D) Vacuoles

(E) Mesosomes

28. Select the aromatic amino acids.

(a) Tyrosine (b) Valine (c) Lysine (d) Tryptophan (e) Serine

(A) (a) and (d) only (B) (a), (d) and (e) only

(C) (c) and (d) only (D) (b) and (d) only

(E) (a) and (e) only

29. Pick out the wrong statement

(A) Proteins are linear chains of amino acids linked by peptide bonds.
(B) Cellulose is a homopolymer.
(C) Inulin is a polymer of glucose.
(D) RuBisCO is the most abundant protein in the whole of the biosphere.
(E) Chitin is a heteropolymer.

30. Match the protein with its function and choose the right option.

	Protein		Function
(a)	Collagen	(1)	Glucose transport
(b)	Trypsin	(2)	Hormone
(c)	Insulin	(3)	Intercellular ground substance
(d)	GLUT-4	(4)	Enzyme

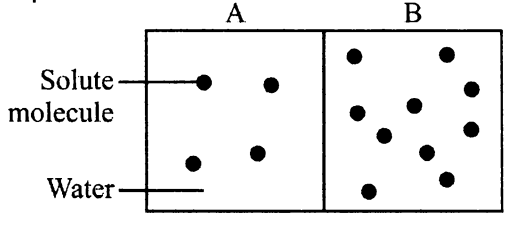
(A) a - 3, b - 4, c - 2, d - 1.
(B) a - 4, b - 1, c - 2, d - 3.
(C) a - 2, b - 4, c - 1, d - 3.
(D) a - 3, b - 4, c - 1, d - 2.
(E) a - 2, b - 1, c - 4, d - 3.

31. Which of the following events takes place during anaphase stage of mitosis?

I. Spindle fibres attach to kinetochores of chromosomes.
II. Centromeres split and chromatids separate.
III. Chromatids move to opposite poles.
IV. Nucleolus, Golgi complex and ER reform.

(A) I and II only (B) II and III only (C) III and IV only
(D) I and IV only (E) II only

32. Chamber A and B are separated by a semi-permeable membrane. Study the given figure and choose the right option.



(A) Chamber A has higher water potential and water will move from A to B.
(B) Chamber B has lower solute potential and water will move from A to B.
(C) Chamber A has higher solute potential and water will move from B to A.
(D) Chamber B has lower water potential and water will move from B to A.
(E) Chamber B has higher solute potential and water will move from B to A.

33. Select the matched ones.

(i) Guttation - water loss in its liquid phase
(ii) Adhesion - mutual attraction between water molecules
(iii) Imbibition - absorption of water by dry wood
(iv) Hypotonic solution - cells shrink

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

34. Consider the following statements.

(i) Sulphur is present in two amino acids–cysteine and valine.
(ii) Low level of N, K, S and Mo causes an inhibition of cell division.
(iii) The microbe that produces nitrogen fixing nodules on the roots of non-leguminous plant "*Alnus*" is *Frankia.*
(iv) Denitrification is carried by the bacteria *Nitrosomonas* and *Nitrobacter.*

Of the above statements

(A) (i) and (ii) alone are correct (B) (i) and (iii) alone are correct
(C) (ii) and (iii) alone are correct (D) (ii) and (iv) alone are correct
(E) (i) and (iv) alone are correct

35. In the process of oxidative phosphorylation one molecule of NADH and one molecule of $FADH_2$ produces

(A) 2 and 3 molecules of ATP respectively.
(B) 18 and 36 molecules of ATP respectively.
(C) 36 and 18 molecules of ATP respectively.
(D) 3 and 2 molecules of ATP respectively.
(E) 2 and 36 molecules of ATP respectively.

36. Match the items in Column I with Column II and choose the correct answer.

Column I	Column II
a. Free living aerobic nitrogen fixers	1. *Anabaena* and *Nostoc*
b. Anaerobic nitrogen fixers	2. *Pseudomonas* and *Thiobacillus*
c. Nitrogen fixing cyanobacteria	3. *Nitrosomonas* and *Nitrococcus*
d. Denitrifying bacteria	4. *Azotobacter* and *Beijernickia*
e. Nitrifying bacteria	5. *Rhodospirillum*

(A) a - 4, b - 5, c - 1, d - 2, e - 3.
(B) a - 5, b - 4, c - 1, d - 3, e - 2.
(C) a - 4, b - 5, c - 2, d - 3, e - 1.
(D) a - 4, b - 3, c - 1, d - 2, e - 5.
(E) a - 4, b - 5, c - 3, d - 2, e - 1.

37. Select the characters not applicable to C_3 plants.

(i) Primary CO_2 acceptor is PEP.
(ii) The plants have RuBisCO.
(iii) The initial carboxylation reaction occurs in bundle sheath cells.
(iv) Calvin cycle occurs only in the bundle sheath cells.

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

38. Which of the following stages of aerobic respiration takes place in the matrix of the mitochondrion?

I Oxidative decarboxylation of pyruvic acid
II Glycolysis
III Krebs cycle
IV Oxidative phosphorylation

(A) I and II only
(B) II and III only
(C) III and IV only
(D) I and III only
(E) I and IV only

39. Which of these statements about glycolysis is true?

(A) In aerobic organisms, it is the only process in respiration.
(B) In this process glucose undergoes complete oxidation to form pyruvic acid.
(C) Enzyme hexokinase catalyses the phosphorylation of glucose to glucose-6 phosphate.
(D) ATP is utilised in the conversion of PEP to pyruvic acid.
(E) $NADH + H^+$ is formed when 1-3 bisphosphoglyceric acid is converted to 3-phosphoglyceric acid.

40. Select the reaction of Krebs cycle resulting in substrate level phosphorylation

(A) Conversion of succinic acid to malic acid.
(B) Conversion of malic acid to oxaloacetic acid.
(C) Conversion of succinyl - CoA to succinic acid.
(D) Conversion of citric acid to α ketoglutaric acid.
(E) Condensation of acetyl group with oxaloacetic acid and water to yield citric acid.

41. Chemiosmotic hypothesis of ATP synthesis in the chloroplasts is based on the

(A) Accumulation of K ions
(B) Proton gradient
(C) Accumulation of Na ions
(D) Membrane potential
(E) Increase in pH in the lumen

42. The mineral involved in carbohydrate translocation, the mineral required for maintaining ribosome structure and the one required for the activation of the enzyme nitrogenase are respectively

(A) Manganese, Boron and Calcium
(B) Calcium, Magnesium and Molybdenum
(C) Boron, Manganese, and Molybdenum
(D) Copper, Magnesium and Boron
(E) Boron, Magnesium and Molybdenum

43. Match the following and choose the correct combination from the options given.

	Column I: Name of the organism		Column II: Chromosome number in meiocyte ($2n$)
(a)	Housefly	(1)	20
(b)	Fruit fly	(2)	34
(c)	Apple	(3)	8
(d)	Maize	(4)	12

(A) a - 1, b - 2, c - 3, d - 4.
(B) a - 2, b - 3, c - 4, d - 1.
(C) a - 3, b - 4, c - 2, d - 1.
(D) a - 4, b - 3, c - 1, d - 2.
(E) a - 4, b - 3, c - 2, d - 1.

44. Select the activities associated with gibberellins.

(a) Apical dominance (b) Good herbicides (c) Promotes bolting
(d) Delay senescence (e) Stimulates closure of stomata

(A) (a) and (b) only
(B) (b) and (c) only
(C) (b) and (d) only
(D) (c) and (d) only
(E) (a), (c) and (d) only

45. What is the main function of filiform apparatus present at the micropylar part of the ovule?

(A) It prevents the entry of more than one pollen tube into the embryo sac.
(B) It brings about opening of the pollen tube.
(C) It helps in the entry of pollen tube into an antipodal cell.
(D) It helps the pollen tube to enter the ovule through chalazal end.
(E) It guides the entry of pollen tube into a synergid and discharge the male gametes.

46. Match the following and choose the correct combination from the options given.

	Column I: Growth Regulator		Column II: Action
(a)	Abscisic acid	(1)	Delays leaf senescence
(b)	Ethylene	(2)	Inhibits seed germination
(c)	Cytokinin	(3)	Herbicide
(d)	Auxin	(4)	Hastens fruit ripening

(A) a - 2, b - 4, c - 1, d - 3.
(B) a - 1, b - 2, c - 3, d - 4.
(C) a - 2, b - 3, c - 4, d - 1.
(D) a - 2, b - 1, c - 3, d - 4.
(E) a - 3, b - 4, c - 1, d - 2.

47. In which of these plants, heterophyllous development occurs due to the environment?

(A) Coriander
(B) Cotton
(C) Larkspur
(D) Buttercup
(E) Canary grass

48. Read the following statements regarding ecological pyramids and choose the correct answer.

(a) The relationship between organisms at different trophic levels is expressed in terms of number, biomass and energy.
(b) Any calculations of energy content, biomass or number has to include one group of organism at that trophic level.
(c) In most ecosystems, all the pyramids of number, biomass and energy are upright.
(d) The pyramid of biomass in sea is generally inverted.
(e) Pyramid of energy is always inverted and can never be upright.

(A) (a), (c) and (d) are wrong
(B) (a) is wrong
(C) (b) and (e) are wrong
(D) (a) and (e) are wrong
(E) (d) and (e) are wrong

49. Many tribes living in the high altitude of Himalayas have

(A) A higher WBC (White Blood Cell) count than people living in the plains.
(B) A lower WBC count than people living in the plains.
(C) A higher RBC (Red Blood Cell) count than people living in the plains.
(D) A lower RBC count than people living in the plains.
(E) Both WBC and RBC counts are lower than people living in the plains.

50. The two basic processes which contribute a decrease in population density are

(A) Natality and Emigration
(B) Mortality and Immigration
(C) Natality and Immigration
(D) Mortality and Emigration
(E) Emigration and Immigration

51. Which of the following interactions is/are examples for competition?

I. *Balanus* and *Chathamalus*
II. Abingdon tortoise and goats
III. Monarch butterfly and birds
IV. *Ophrys* and wasp

(A) I and III only
(B) I and II only
(C) I, II and III only
(D) II, III and IV only
(E) IV only

52. An interaction where one species is harmed while the other is unaffected is called

(A) Commensalism
(B) Predation
(C) Competition
(D) Parasitism
(E) Amensalism

53. It has been recommended that storage of nuclear waste after sufficient pre-treatment, should be done in suitably shielded containers buried within the rocks about

(A) 50 m deep below the earth's surface.
(B) 100 m deep below the ocean bed.
(C) 75 m deep below the earth's surface.
(D) 500 m deep below the earth's surface.
(E) 25 m deep below the river bed.

54. The expensive metals used as catalytic converters in automobiles are

(A) Cadmium and Rhodium
(B) Platinum, Palladium and Rhodium
(C) Lead and Cadmium
(D) Copper and Cadmium
(E) Lead and Mercury

55. Which of these is not an advantage of CNG over diesel?

(A) Burns more efficiently
(B) It is cheap
(C) Cannot be siphoned off by thieves
(D) Cannot be adulterated
(E) Easy to lay down pipelines for delivery

56. In the sea water, the salt concentration (measured as salinity in parts per thousand) is

(A) 30 - 35%
(B) 10 - 20%
(C) 10 - 15%
(D) 50 - 60%
(E) 60 - 70%

57. When one greenhouse gas contributes 6% to total global warming, the other gas contributes 20%. They are

(A) N_2O and carbon dioxide
(B) N_2O and CFCs
(C) CFCs and methane
(D) N_2O and methane
(E) Carbon dioxide and CFCs

58. Select the matched one

(A) Biolistics - Bioreactor
(B) *Thermus aquaticus* - 'T - DNA'
(C) Plasmid DNA - Vector
(D) EcoRI - Restriction exonuclease
(E) *Agrobacterium tumifaciens* - Bt toxin gene

59. Restriction endonuclease - Hind II always cuts DNA molecules at a particular point by recognizing a specific sequence of

(A) Six base pairs.
(B) Five base pairs.
(C) Four base pairs.
(D) Seven base pairs.
(E) Three base pairs.

60. Find out the wrong statement

(A) Human protein used to treat emphysema is α-1-antitrypsin.
(B) Human insulin is being commercially produced from a transgenic species of *Agrobacterium tumifaciens*.
(C) Rosie, the first transgenic cow, produced human protein enriched milk.
(D) Cryl Ab endotoxins obtained from *Bacillus thuringiensis* is effective against corn borers.
(E) Genetically modified bacterium used as bio-pesticide is *Bacillus thuringiensis*.

61. The original features of Darwin's finches in Galapagos islands were adapted for

(A) Flesh eating
(B) Insect eating
(C) Fish eating
(D) Honey collecting
(E) Seed eating

62. Which one of the following period was a part of Paleozoic era in the geological time scale?

(A) Devonian
(B) Jurassic
(C) Tertiary
(D) Cretaceous
(E) Triassic

63. Choose the wrong statement regarding Hardy-Weinberg principle

(A) Allele frequencies in a population are stable and constant from generation to generation.
(B) Sum total of all the allelic frequencies in a population is 1.
(C) Variation due to genetic drift results in changed frequency of genes and alleles in future generations.
(D) Natural selection can lead to stabilisation, directional change or disruption.
(E) Genetic recombination helps in maintaining Hardy-Weinberg equilibrium.

64. Presence of comb plates is a characterstic feature of

(A) Porifera
(B) Cnidaria
(C) Ctenophora
(D) Platyhelminthes
(E) Annelida

65. Match Column I with Column II and Column III. Choose the correct option.

Column I	Column II	Column III
(1) Ctenophora	(a) Ancylostoma	(i) Bioluminescence
(2) Platyhelminthes	(b) Pleurobrachia	(ii) Acoelomate
(3) Cyclostomata	(c) Planaria	(iii) Migration
(4) Aschelminthes	(d) Ophiura	(iv) Coelomate
(5) Echinodermata	(e) Hag fishes	(v) Endoparasite

(A) 1 - a – i ; 2 - c - ii ; 3 - b - iii ; 4 - e - v ; 5 - d – iv.
(B) 1 - d – i ; 2 - e - ii ; 3 - b - iii ; 4 - c - v ; 5 - a – iv.
(C) 1 - b – i ; 2 - c - ii ; 3 - e - iii ; 4 - a - v ; 5 - d – iv.
(D) 1 - c – i ; 2 - a - ii ; 3 - d - iii ; 4 - e - v ; 5 - b – iv.
(E) 1 - b – i ; 2 - d - ii ; 3 - c - iii ; 4 - e - v ; 5 - a - iv.

66. Read the following statements and choose the correct option.

I. The pelvic fins of female sharks bear claspers.
II. In Obelia, polyps produce medusae sexually and medusae form the polyps asexually.
III. Flame cells in Platyhelminthes help in osmoregulation and excretion.
IV. In non-chordates, central nervous system is ventral, solid and double.
V. Pinnae are present in mammals.

(A) II, IV and V only are correct.
(B) I, III and V only are correct.
(C) III, IV and V only are correct
(D) I, II and III only are correct.
(E) II and III only are correct.

67. Find the wrongly matched pair

(A) Cnidoblast - Anchorage
(B) Flame cells - Defense
(C) Parapodia - Swimming
(D) Radula - Rasping organ
(E) Air bladder - Buoyancy

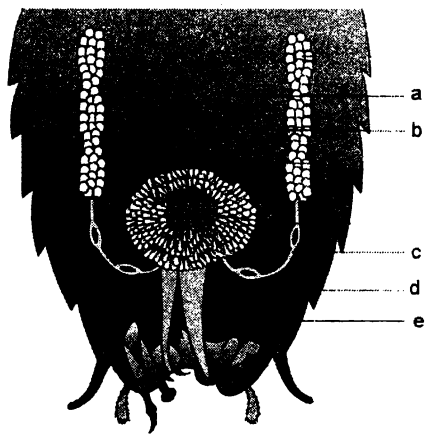
68. Identify the wrong statement regarding earthworm

(A) The first body segment is called peristomium.
(B) Prostomium contains the mouth.
(C) Clitellum is made up of glandular tissue.
(D) Prostomium is sensory in function.
(E) Body setae are S-shaped.

69. The sensory papillae in frogs are associated with

(A) smell
(B) hearing
(C) respiration
(D) touch
(E) vision

70. In the male reproductive system of cockroach, a, b, c, d and e represents.



(A) a-phallic gland, b-small tubules, c-vas deferens, d-ejaculatory duct, e-right phallomere.

(B) a-phallic gland, b-vas deferens, c-small tubules, d-ejaculatory duct, e-right phallmoere.

(C) a-phallic gland, b-ejaculatory duct, c-vas deferens, d-right phallomere, e-small tubules.

(D) a-small tubules, b-phallic gland, c-vas deferens, d-ejaculatory duct, e-testis.

(E) a-caudal style, b-phallic gland, c-small tubules, d-vas deferens, e-ejaculatory duct.

71. Read the statements regarding frog and choose the correct option.

1. The frog never drinks water but absorbs water through its skin.
2. The hindlimbs of frog ends in four digits.
3. Male frogs have vocal sacs.
4. Male frogs have a copulatory pad on the second digit of the forelimb.
5. Frogs have bilobed tongue.

(A) 2 and 5 alone are correct

(B) 5 alone is correct

(C) 1, 3 and 5 alone are correct

(D) 1 and 4 alone are correct

(E) 1 and 2 alone are correct

72. Read the statements and choose the correct option.

1. Neuroglial cells protect and support the neurons.
2. Cartilage has a hard and non pliable matrix rich in magnesium salts.
3. Smooth muscles are striated.
4. Chondrocytes are bone forming cells.
5. Biceps are parallely bundled.

(A) 2 and 5 alone are wrong
(B) 2, 3 and 4 alone are wrong
(C) 1, 3 and 5 alone are wrong
(D) 1 and 5 alone are wrong
(E) 1 and 2 alone are wrong

73. Except blood, the cells of connective tissues secrete certain substances that act as matrix.

These substances are

(A) conjugated proteins
(B) signalling molecules
(C) cholesterol
(D) growth hormones
(E) modified polysaccharides

74. Read the following statements regarding Mendelian inheritance and choose the correct option.

1. Mendel's experiments had small sample size which gave greater credibility to the data.
2. A true breeding line shows a stable trait inheritance and expression for several generations.
3. In a dissimilar pair of factors, one member of the pair dominates over the other.
4. A recessive parental trait is expressed only in its heterozygous condition.
5. Two alleles of a gene are located on homologous sites on homologous chromosomes.

(A) 2 alone is correct
(B) 2, 3 and 5 alone are correct
(C) 1, 3 and 5 alone are correct
(D) 1 and 5 alone are correct
(E) 1 and 4 alone are correct

75. Match Column I with Column II and choose the correct answer.

	Column I		Column II
(i)	T.H.Morgan	(a)	Mapped position of genes
(ii)	Alfred Sturtevant	(b)	X-body
(iii)	Henking	(c)	Nuclein
(iv)	Meischer	(d)	Genetic code
(v)	George Gamow	(e)	Linkage

(A) i - b, ii - a, iii - c, iv - d, v - e.
(B) i - e, ii - a, iii - b, iv - c, v - d.
(C) i - d, ii - e, iii - a, iv - b, v - c.
(D) i - b, ii - c, iii - d, iv - e, v - a.
(E) i - c, ii - d, iii - e, iv - a, v - b.

76. Read the following statements and choose the correct option.

I. Failure of segregation of chromatids during cell division results in aneuploidy.
II. Chromosomal disorders are mainly determined by alteration or mutation in a single gene.
III. Thalasemia and cystic fibrosis are Mendelian disorders.
IV. Sickle cell anemia is an X-linked trait.
V. Haemophilia is an autosome linked recessive disease.

(A) I and III alone are correct
(B) I, III and IV alone are correct
(C) III and IV alone are correct
(D) II and III alone are correct
(E) I, III and V alone are correct

77. Read the statements regarding structure of polynucleotide chain and choose the correct option.

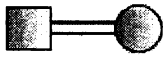
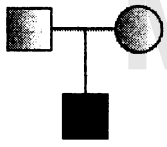
1. A nitrogenous base is linked to the pentose sugar through a phospho-diester linkage.
2. Two nucleotides are linked through 3′-5′ N-glycosidic linkage to form a dinucleotide.
3. The polynucleotide backbone is formed by sugar and phosphate.
4. A phosphate group is linked to 5′-OH of a nucleoside through a N-glycosidic linkage to form a nucleotide.

(A) 4 alone is correct
(B) 3 alone is correct
(C) 1, 3 and 4 alone are correct
(D) 1 and 4 alone are correct
(E) 1 and 2 alone are correct

78. Avery, MacLeod and McCarty inhibited bacterial transformation by using the enzyme

(A) RNase
(B) Ligase
(C) DNase
(D) DNA polymerase
(E) Helicase

79. Match Column I with Column II and choose the correct option.

Column I		Column II
i.		- a. Consanguineous mating
ii.		- b. Normal female
iii.		- c. Mating
iv.		- d. Affected female
v.		- e. Parents with male child affected with disease
		- f. Sex unspecified

(A) i - c, ii - a, iii - b, iv - e, v - d.
(B) i - b, ii - a, iii - f, iv - c, v - d.
(C) i - c, ii - d, iii - a, iv - e, v - b.
(D) i - c, ii - a, iii - f, iv - e, v - d.
(E) i - d, ii - c, iii - b, iv - f, v - a.

80.. Read the following statements and choose the correct option.

I. In phenylketonuria the affected person does not secrete the enzyme to convert phenylalanine to tyrosine.
II. The possibility of a male becoming haemophilic is extremely rare.
III. Sickle cell anemia is caused by the substitution of glutamic acid by valine at the fifth position of beta chain of haemoglobin molecule.
IV. Myotonic dystropy is an autosomal dominant trait.

(A) I and II alone are wrong
(B) II and III alone are wrong
(C) II alone is wrong
(D) III alone is wrong
(E) II and IV alone are wrong

81. Choose the wrong statement regarding translation

(A) The process of translation of mRNA to protein begins only when the small ribosomal subunit encounters mRNA.
(B) The 23SrRNA acts as a catalyst for the formation of peptide bond in prokaryotes.
(C) The additional sequences of mRNA that are not translated are present only at the 5′ end.
(D) For initiation, ribosomes binds to the mRNA at the start codon.
(E) At the end of translation a release factor binds to the stop codon terminating translation.

82. Identify the wrong statement about RNA

(A) RNA was the first genetic material to evolve in the living systems.
(B) Apart from being a genetic material, it is also a catalyst.
(C) DNA evolved from RNA with chemical modifications.
(D) RNA being a catalyst is non-reactive and stable.
(E) Essential life processes like metabolism, translation, splicing involves RNA.

83. Identify the wrong statement

(A) In prokaryotes, the structural gene is polycistronic.
(B) In eukaryotes, structural genes have interrupted coding sequences.
(C) Eukaryotes have split gene arrangement.
(D) Regulatory sequences do not code for any protein.
(E) Intervening sequences appear in mature RNA.

84. A 'transcription unit' in DNA is defined primarily by the

(i) promoter (ii) structural gene (iii) adenylate residues
(iv) Okazaki fragments (v) terminator

Choose the correct option

(A) iii and v only (B) i, ii and v only (C) iv only
(D) ii and v only (E) v only

85. AUG codes for

(A) Methionine
(B) Serine
(C) Arginine
(D) Valine
(E) Threonine

86. Select the correct sequence of steps in DNA fingerprinting involving southern blot hybridization using radiolabelled VNTR as a probe.

I. Hybridization using labelled VNTR probe.
II. Isolation of DNA.
III. Transferring (blotting) of separated DNA fragments to synthetic membranes, such as nitrocellulose or nylon.
IV. Detection of hybridized DNA fragments by autoradiography.
V. Separation of DNA fragments by electrophoresis.
VI. Digestion of DNA by restriction endonucleases.

(A) I, V, VI, II, III and IV
(B) II, VI, V, III, I and IV
(C) V, I, VI, III, IV and II
(D) II, I, V, VI, IV and III
(E) II, V, VI, I, III and IV

87. Which RNA picks up specific amino acid from the amino acid pool in the cytoplasm to the ribosome during protein synthesis?

(A) tRNA (B) mRNA (C) rRNA
(D) SnRNA (E) hnRNA

88. The heavy isotope used for proving semi-conservative replication of DNA by Meselson and Stahl was

(A) ^{15}N (B) ^{14}N (C) ^{14}C
(D) ^{31}N (E) ^{31}P

89. Read the statements regarding the *lac* operon and choose the correct option.

1. An inducer regulates the switching on and off of the *lac* operon.
2. The repressor protein dissociates from the operator region and prevents RNA polymerase from transcribing the operon.
3. In the presence of lactose, the repressor is activated by interaction with lactose.
4. RNA polymerase has access to the promoter and transcription proceeds only when the repressor is inactivated.

(A) 1 and 2 alone are correct
(B) 2 alone is correct
(C) 3 and 4 alone are correct
(D) 1 and 3 alone are correct
(E) 1 and 4 alone are correct

90. The enzyme in bacteria which acts as a catalyst for the formation of peptide bond during translation is

(A) 28S rRNA (B) polymerase (C) ribozyme
(D) lysozyme (E) exonuclease

91. Choose the wrong statement regarding the observations drawn from the Human Genome Project

(A) Repetitive sequences are stretches of RNA.
(B) Less than 2 per cent of the genome codes for protein.
(C) Chromosome 'Y' has the fewest number of genes.
(D) SNPs help in tracing human history.
(E) Repetitive sequences make up a very large portion of the human genome.

92. Find the correctly matched pair

(A) Frenulum - Attaches the tongue to the floor of buccal cavity
(B) Rugae - Finger like folding in small intestine
(C) Goblet cells - Hepatic lobules
(D) Villi - Fundus
(E) Glisson's capsule - Pancreas

93. Match Column I with Column II and choose the correct option.

	Column I		Column II
(i)	ileo-caecal valve	(a)	between the stomach and duodenum
(ii)	pyloric sphincter	(b)	between ileum and caecum
(iii)	gastro-oesophageal sphincter	(c)	hepato-pancreatic duct
(iv)	sphincter of Oddi	(d)	between oesophagus and stomach

(A) i - b, ii - d, iii - a, iv - c.
(B) i - b, ii - a, iii - d, iv - c.
(C) i - c, ii - a, iii - d, iv - b.
(D) i - d, ii - b, iii - c, iv - a.
(E) i - b, ii - a, iii - c, iv - d.

94. Which is not a function of the 'conducting part' of the respiratory system?

(A) Clears the air from foreign particles.
(B) Humidifies the air.
(C) Brings the air to body temperature.
(D) It is the site of diffusion of oxygen and carbon dioxide.
(E) Transports air to the alveoli.

95. Find the correctly matched pair

(A) CO_2 transported by RBCs - about 3%
(B) CO_2 carried in a dissolved state through plasma - about 20-25%
(C) O_2 transported by RBC in the blood - about 97%
(D) CO_2 carried as bicarbonate - about 7%
(E) O_2 carried in a dissolved state through plasma - about 70%

96. Which of these is/are inactive forms?

(i) Fibrin (ii) Fibrinogen (iii) Thrombin
(iv) Prothrombin (v) Thrombokinase

(A) v only
(B) i and iii only
(C) i and ii only
(D) iii and v only
(E) ii and iv only

97. Match Column I with Column II and choose the correct option.

	Column I		Column II
(i)	Stroke volume	(a)	70-75 action potentials per minute
(ii)	Cardiac output	(b)	Ventricular repolarisation
(iii)	SAN	(c)	70 mL of blood per cardiac cycle
(iv)	P wave	(d)	5000 mL of blood (approximately) per cardiac cycle
(v)	T wave	(e)	atrial depolarisation

(A) i - d, ii - c, iii - a, iv - b, v - e.
(B) i - a, ii - e, iii - c, iv - d, v - b.
(C) i - c, ii - d, iii - a, iv - e, v - b.
(D) i - c, ii - a, iii - d, iv - e, v - b.
(E) i - d, ii - a, iii - b, iv - e, v - c.

98. Match the regions of the brain with their function.

i. Spinal cord a. body temperature and urge for eating
ii. Thalamus b. cardiovascular reflexes
iii. Hypothalamus c. reflex action
iv. Medulla d. sensory and motor signaling

(A) i - b, ii - d, iii - c, iv - a.
(B) i - d, ii - d, iii - a, iv - c.
(C) i - c, ii - b, iii - d, iv - a.
(D) i - c, ii - d, iii - b, iv - a.
(E) i - c, ii - d, iii - a, iv - b.

99. Read the following statements and choose the correct option.

I. Ascending limb of Henle's loop is permeable to water.
II. Tubular cells secrete substances like H^+, K^+ and ammonia into the filtrate.
III. There is maximum reabsorption in Henle's loop.
IV. Conditional reabsorbtion of Na^+ occurs in DCT.
V. PCT helps in maintaining the ionic balance of the body fluids.

(A) I, IV and V alone are correct
(B) II, III and V alone are correct
(C) III, IV and V alone are correct
(D) II, IV and V alone are correct
(E) I, II and III alone are correct

100. Read the statements regarding a myofibril and choose the correct option.

1. Each myofibril has alternate dark and light bands.
2. In the centre of each 'A' band is an elastic fibre called 'Z' line.
3. 'A' and 'I' bands are arranged alternatively throughout the length of the myofibril.
4. Sarcomere is the functional unit of contraction.
5. The central part of the thick filament, not overlapped by a thin filament is the 'M' line.

(A) 1, 3 and 5 alone are correct
(B) 2 and 5 alone are correct
(C) 2 and 3 alone are correct
(D) 1, 3 and 4 alone are correct
(E) 1, 3 and 2 alone are correct

101. Acromion is the flat expanded process of the

(A) Clavicle
(B) Scapula
(C) Ischium
(D) Femur
(E) Collar bone

102. In a dialyzing unit, the dialyzing fluid has a similar composition as the plasma except for

(A) proteins
(B) electrolytes
(C) hormones
(D) oxygen
(E) nitrogenous wastes

103. Identify the wrong statement regarding the mechanism of hearing?

(A) The external ear receives and directs the sound waves to the ear drum.
(B) The vibrations produced in the ear drum are transmitted through the ear ossicles and oval window to the fluid filled inner ear.
(C) The movement of the basilar membrane bends the hair cells.
(D) Nerve impulses are generated and transmitted by efferent fibres to the auditory cortex of the brain.
(E) The cerebellum integrates information from the semicircular canals of the ear and the auditory system.

104. Choose the **wrong** statement among the following

(A) Somatostatin secreted by hypothalamus stimulates the secretion of somatotrophic hormone.

(B) Pars intermedia secretes melanocyte stimulating hormone.

(C) In human, the pars intermedia is almost merged with pars distalis.

(D) Corpus luteum is formed from the remnants of the Graafian follicles after ovulation.

(E) Oxytocin acts on the smooth muscles of our body and stimulates their contraction.

105. Which of the following is not a function of thyroid hormones?

(A) Regulation of basal metabolic rate.

(B) Controls the metabolism of carbohydrates, proteins and fats.

(C) Maintains water and electrolyte balance.

(D) Supports the process of RBC formation.

(E) Regulates the diurnal rhythm.

106. Which of the following activates JG cells to release renin?

(A) Increase in glomerular filtration rate.

(B) Passage of urea into medullary interstitium.

(C) Atrial natriuretic factor.

(D) Fall in glomerular filtration rate.

(E) Absorption of HCO_3^- in PCT.

107. Read the following statements regarding mechanism of respiration and choose the correct option.

1. Inspiration occurs only when there is negative pressure in the lungs with respect to the atmosphere.
2. Expiration takes place only when the intra-pulmonary pressure is lower than atmospheric pressure.
3. Pressure gradients are generated with the help of diaphragm and intercostal muscles.
4. Inspiration is initiated by the relaxation of the diaphragm.
5. Contraction of the diaphragm reduces pulmonary volume and increases the intra-pulmonary pressure causing expiration.

(A) 1, 2 and 5 only are correct

(B) 2 only is correct

(C) 2 and 5 only are correct

(D) 1 and 3 only are correct

(E) 1 and 4 only are correct

108. Cell fragments produced from megakaryocytes are

(A) platelets (B) neutrophils (C) leucocytes
(D) mast cells (E) basophils

109. Choose the correct statement

(A) Non myelinated nerve fibres are found in spinal and cranial nerves.
(B) Retina has multipolar neurous.
(C) Electrical synapses are commonly present in humans.
(D) Impulse transmission across an electrical synapse is faster than across a chemical synapse.
(E) In a resting neuron, the axoplasm inside the axon contains high concentration of sodium ions.

110. The photopigment of the human eye are composed of a protein called

(A) Melanin (B) Retinal (C) Opsin
(D) Myosin (E) Troponin

111. A chemosensitive area adjacent to the respiratory rhythm centre in the brain is highly sensitive to

I. oxygen II. carbon dioxide III. hydrogen ions
IV. bicarbonate ions V. water

(A) I only
(B) II and III only
(C) I and IV only
(D) V only
(E) I and V only

112. The secondary spermatocytes undergo second meiotic division during spermatogenesis to produce

(A) Spermatozoa
(B) Diploid spermatids
(C) Primary spermatocytes
(D) Spermatogonia
(E) Haploid spermatids

113. CuT, LNG-20 and Cu7 are examples for

(A) Contraceptive pills
(B) Surgical methods of sterilization
(C) Assisted reproductive technology
(D) Intra-uterine device
(E) Monoclonal antibodies

114. Which of the following is not a sexually transmitted disease?

(A) Genital warts
(B) Trichomoniasis
(C) Chlamydiasis
(D) Syphilis
(E) Myasthenia gravis

115. Who observed that 'within a region, species richness increased with increasing explored area, but only upto a limit'?

(A) Paul Ehrlich
(B) David Tilman
(C) Alexander von Humboldt
(D) Edward Wilson
(E) Robert May

116. Which of the following is referred to as the 'Evil Quartet' with reference to loss of biodiversity?

(A) Species richness, extinctions, deforestation, erosion.
(B) Habitat loss and fragmentation, over exploitation, alien species invasion, co-extinction.
(C) Over exploitation, grazing, decomposition, extinction.
(D) Habitat destruction, co-extinction, deforestation, species richness.
(E) Grazing, erosion, deforestation, species richness.

117. The immunoglobulin abundant in colostrum is

(A) IgG
(B) IgA
(C) IgM
(D) IgE
(E) IgD

118. Read the statements and choose the correct option.

I. Secretion of interferons is a physiological barrier of innate immunity.
II. T-lymphocytes are responsible for cell mediated immunity.
III. Injection given against snake venom is a type of active immunisation.
IV. Antibodies produced during allergic reactions are of IgA type.

(A) I and II alone are correct
(B) II and IV alone are correct
(C) I alone is correct
(D) II and III alone are correct
(E) II alone is correct

119. Match Column I with Column II and Column III. Choose the correct option.

Column I	Column II	Column III
1) Typhoid	a) *Haemophilus influenza*	i) Chronic inflammation of the lymphatic vessels
2) Pneumonia	b) *Trichophyton*	ii) Dry scaly lesions on the skin
3) Filariasis	c) *Plasmodium*	iii) Chill and high fever recurring every 3 to 4 days
4) Ringworm	d) *Salmonella typhi*	iv) Alveoli filled with fluid
5) Malaria	e) *Wuchereria malayi*	v) Intestinal perforations

(A) 1 - a - i ; 2 - c - ii ; 3 - b - iii ; 4 - e - v ; 5 - d - iv.
(B) 1 - d - i ; 2 - e - ii ; 3 - b - iii ; 4 - c - v ; 5 - a - iv.
(C) 1 - b - i ; 2 - c - ii ; 3 - e - iii ; 4 - a - v ; 5 - d - iv.
(D) 1 - d - v ; 2 - a - iv ; 3 - e - i ; 4 - b - ii ; 5 - c - iii.
(E) 1 - b - i ; 2 - d - ii ; 3 - c - iii ; 4 - e - v ; 5 - a - iv.

120. The drug that interferes with the transport of neurotransmitter dopamine is

(A) Cocaine
(B) Marijuana
(C) Charas
(D) Heroin
(E) Benzodiazepines

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