

Biology- Previous Year Questions [1995-2010]

1. **Which one of the following processes in the bodies of living organisms is a digestive process? [2010]**
 - a) Breakdown of proteins into amino acids
 - b) Breakdown of glucose into CO₂ and H₂O.
 - c) Conversion of glucose into glycogen.
 - d) Conversion of amino acids into proteins.
2. **From the point of view of evolution of living organisms, which one of the following is the correct sequence of evolution? [2010]**
 - a) Otter - Tortoise - Shark
 - b) Shark - Tortoise - Otter
 - c) Tortoise - Shark - Otter
 - d) Shark - Otter - Tortoise
3. **The Panda belongs to the same family as that of: [2009]**
 - a) Bear b) Cat
 - c) Dog d) Rabbit
4. **In making the saffron spice, which one of the following parts of the plant is used? [2009]**
 - a) Leaf b) Petal
 - c) Sepal d) Stigma
5. **Consider the following statements: [2009]**
 1. Sweet orange plant is propagated by grafting technique.
 2. Jasmine plant is propagated by layering technique.

Which of the statements given above is/ are correct?

 - a) 1 only b) 2 only
 - c) Both 1 and 2 d) Neither 1 nor 2
6. **In the context of genetic disorders, consider the following: [2009]**

a woman suffers from colour blindness while her husband does not suffer from it. They have a son and a daughter. In this context, which one of the following statements is most probably correct?

 - a) Both children suffer from colour blindness.
 - b) Daughter suffers from colour blindness while son does not suffer from it.
 - c) Both children do not suffer from colour blindness.
 - d) Son suffers from colour blindness while daughter does not suffer from it.
7. **Consider the following statements about probiotic food: [2008]**
 1. Probiotic food contains live bacteria which are considered beneficial to humans.
 2. Probiotic food helps in maintaining gut flora.

Which of the statements given above is/are correct?

 - a) 1 only b) 2 Only
 - c) Both 1 and 2 d) Neither 1 nor 2
8. **Assertion (A) : In Human body, liver has an important role in fat digestion.: [2008]**

Reason(R) : Liver produces two importance fat-digesting enzymes.

 - a) Both A and R are individually true and R is the correct explanation of A
 - b) Both A and R are individually true and R is not the correct explanation of A
 - c) A is true but R is false
 - d) A is false but R is true
9. **Which one of the following is the correct sequence in the order of decreasing**

length of the three structural parts given below of small intestine in the human body? [2007]

- a) Jejunum – Duodenum- Ileum
- b) Ileum-Duodenum- Duodenum
- c) Jejunum-Ileum- Duodenum
- d) Ileum- Jejunum- Duodenum

10. In human body, which one of the following hormones regulates blood calcium and Phosphate? [2007]

- a) Glucagon
- b) Growth hormone
- c) Parathyroid
- d) Thyroxine

11. Which one of the following parts of the pitcher plant becomes modified into a pitcher? [2007]

- a) Stem b) Leaf
- c) Stipule d) Petiole

12. How do most insects respire? [2007]

- a) Through skin
- b) Through gills
- c) By lungs
- d) By tracheal system

13. In human being, normally in which one of the following parts, does the a sperm fertilize the ovum? [2007]

- a) Cervix
- b) Fallopian tube
- c) Lower part of uterus
- d) Upper part of uterus

14. Which one of the following parts of human brain is the regulating centre for swallowing and vomiting? [2007]

- a) Cerebellum
- b) Cerebrum
- c) Medulla oblongata

d) Pons

15. Production of which one of the following is a function of the liver? [2007]

- a) Lipase b) Urea
- c) Mucus d) Hydrochloric acid

16. Which one of the following is not a digestive enzyme in the human systems? [2007]

- a) Trypsin b) Gastrin
- c) Indigo and yellow d) Yellow and violet

17. Which of the following types of light are strongly absorbed by plants? [2007]

- a) Violet and orange
- b) Blue and red
- c) Indigo and yellow
- d) Yellow and violet

18. In the human body, which structure is the appendix attached to? [2007]

- a) The large intestine
- b) the small intestine
- c) The gall bladder
- d) The stomach

19. Consider the following statements: [2006]

1. Caffeine, a constituent of tea and coffee is a diuretic.
2. Citric acid is used in soft drinks.
3. Ascorbic acid is essential for the formation of bones and teeth.
4. Citric acid is a good substitution for ascorbic acid in our nutrition.

Which of the statements given above are correct?

- a) 1 and 2, only b) 1, 2 and 3, only
- c) 3 and 4 only d) 1, 2, 3 and 4

20. What is the name of the vessel that delivers the nutrient rich blood from the stomach & small intestine to the liver? [2006]

- a) Left hepatic artery
- b) Hepatic vein
- c) Right hepatic artery
- d) Hepatic portal vein

21. Consider the following statements with reference to human body: [2006]

1. The common bile duct release its contents into stomach.
2. The pancreatic duct releases its contents into duodenum.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

22. Which one among the following is not a good source of nutritional calcium? [2006]

- a) Rice
- b) Ragi
- c) Skimmed milk
- d) Egg

23. Assertion (A): All the proteins in our food are digested in small intestine only.: [2005]

Reason (R): The Protein-digesting enzymes from pancreas are released into small intestine.

- a) Both (A) and (R) are individually true and R is the correct explanation of A
- b) Both (A) and (R) are individually true and R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

24. Assertion (A): Amoeba is reproduced by fission: [2005]

Reason (R): All unicellular organisms are reproduced by asexual methods.

- a) Both (A) and (R) are individually true and R is the correct explanation of A
- b) Both (A) and (R) are individually true and R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

25. Assertion (A): The person with diabetes insipidus feels thirsty.: [2005]

Reason (R): A person with diabetes insipidus suffers from excess secretion of vasopressin.

- a) Both (A) and (R) are individually true and R is the correct explanation of A
- b) Both (A) and (R) are individually true and R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

26. Consider the following statements: [2004]

1. Non-function of lachrymal gland is an important symptom of deficiency of Vitamin A.
2. Deficiency of Vitamin B1 can lead to indigestion and heart enlargement.
3. Vitamin C deficiency can lead to pain in the muscles.
4. Deficiency of Vitamin D causes increased loss of Ca^{++} in urine.

Which of the statements given above are correct?

- a) 1 and 2
- b) 2, 3 and 4
- c) 1, 3 and 4
- d) 1, 2, 3 and 4

27. The hormone insulin is a: [2004]

- a) Glycolipid
- b) Fatty acid
- c) Peptide
- d) Stero

28. In which organ of the human body are the lymphocyte cells formed? [2004]

- a) Liver b) Long bone
c) Pancreas d) Spleen

29. Assertion (A): Fatty acids should be a part of the balanced human diet.: [2004]

Reason (R): The cells of the human body cannot synthesize any fatty acids.

- a) Both A and R are individually true and R is the correct explanation of A
b) Both A and R are individually true but R is not the correct explanation of A
c) A is true but R is false
d) A is false but R is true

30. Consider the following statements: [2004]

1. Femur is the longest bone in the human body.
2. Cholera is a disease caused by bacteria.
3. 'Athlete's foot' is a disease caused by virus.

Which of the statements given above are correct?

- a) 1 and 2 b) 2 and 3
c) 1 and 3 d) 1, 2 and 3

31. Octopus is: [2003]

- a) An arthropod
b) An echinoderm
c) A hemichordate
d) A mollusc

32. With reference to the work of human kidney, consider the following statements: [2003]

1. After the waste is removed in the kidney, the cleaner blood is sent back through renal artery.
2. From Bowman's capsule, the filtered liquid passes through tiny tubes where

much of the glucose is reabsorbed and sent back to the blood in the renal vein.

Which of these statements is/the correct?

- a) Only 1 b) Only 2
c) Both 1 and 2 d) Neither 1 nor 2

33. Which one of the following statements is correct? [2003]

- a) Milk contains none of the B-vitamins
b) Vitamin-A (retinal) deficiency leads to dry and scaly skin
c) One of the symptoms of scurvy is pain in the joints
d) Vitamin B1 (thiamine) deficiency can lead to heart failure

34. Consider the following conditions of sick human body: [2003]

1. Swollen lymph nodes
2. Sweating at night
3. Loss of memory
4. Loss of weight

Which of these are the symptoms of AIDS?

- a) 1 and 2 b) 2, 3 and 4
c) 1, 2 and 3 d) 1, 2, 3 and 4

35. With reference to normal human beings consider the following statements: [2003]

1. In response to the presence of HCL, secretin is produced from the duodenum
2. Enterogastrone is produced in the small intestine in response to the presence of fatty acids

Which of these statements is/are correct?

- a) Only 1 b) Only 2
c) Both 1 and 2 d) Neither 1 nor 2

36. Among living organisms, which one of the following is the most responsible factor for bringing about the origin of a new species? [2002]

- a) Isolation

- b) Mutation
- c) Natural Selection
- d) Sexual Reproduction

37. Ticks and mites are actually: [2002]

- a) Arachnids b) Crustaceans
- c) Insects d) Myriapods

38. With reference to the blood in a normal person, which one of the following statements is correct? [2002]

- a) Compared to arteries, veins are less numerous and hold less of the body's blood at any given time
- b) Blood cells constitute about 70 per cent of the total volume of the blood
- c) White Blood Cells (WBC) are made by lymph nodes only
- d) The blood has more platelets than WBC

39. Consider the following plants: [2002]

1. Bougainvillea
2. Carnations
3. Cocoa
4. Grapes

Which of these plants are propagated by stem cuttings?

- a) 1 and 2 b) 2, 3 and 4
- c) 1, 3 and 4 d) 1, 2, 3 and 4

40. In the context of the organic evolution, the loss of limbs of snakes is explained by the phenomenon of: [2002]

- a) use and disuse of organs
- b) adaptation to living in burrows
- c) natural selection
- d) inheritance of acquired characters

41. When one gene controls two or more different characters simultaneously, the phenomenon is called: [2002]

- a) Apomixis b) Pleiotropy

- c) Polyploidy d) Polyteny

42. With reference to the human body consider the following statements: [2002]

43. Which one of the following is monogamous? [2002]

- a) Wolf b) Walrus
- c) Seal d) Deer

44. In a bisexual flower, if androecium and gynaecium mature at different times, the phenomenon is known as: [2002]

- a) Dichogamy b) Herkogamy
- c) Heterogamy d) Monogamy

45. Which one of the following statements is correct? [2002]

- a) All echinoderms are viviparous
- b) Round worm has no circulatory system
- c) In bony fishes, swim bladder is usually present
- d) In cartilaginous fishes, fertilisation is internal

46. Which one of the following statements is correct? [2002]

- a) Prions are the smallest free-living cells
- b) The cell wall of Mycoplasmas is made up of amino sugars
- c) Viroids consist of a single-stranded RNA molecule
- d) Rickettsias lack cell wall

47. Assertion (A): Drinking of whisky increases the frequency of urination.: [2002]

Reason (R): Alcohol intake speeds up the secretion of vasopressin in the body.

- a) Both A and R are individually true and R is the correct explanation of A

- b) Both A and R are individually true but R is not a correct explanation of A
 c) A is true but R is false
 d) A is false but R is true

48. Assertion (A): Human diet should compulsorily contain Glycine, Serine and Tyrosin.: [2002]

Reason (R): Essential amino acids cannot be synthesised in the human body.

- a) Both A and R are individually true and R is the correct explanation of A
 b) Both A and R are individually true but R is not a correct explanation of A
 c) A is true but R is false
 d) A is false but R is true

49. Which of the following cell organelles play the most significant role in protein synthesis? [2001]

- a) Lysosome and Centrosome
 b) Endoplasmic reticulum and Ribosome
 c) Golgi apparatus and Mitochondria
 d) Lysosome and Mitochondria

50. Assertion (A): Scientists can cut apart and paste together DNA molecules at will, regardless of the source of the molecules.: [2001]

Reason (R): DNA fragments can be manipulated using restriction endonucleases and DNA ligases.

- a) Both A and R are individually true and R is the correct explanation of A
 b) Both A and R are individually true but R is NOT a correct explanation of A
 c) A is true but R is false
 d) A is false but R is true

51. The cellular and molecular control of programmed cell death is known as: [2001]

- a) Apoptosis
 c) Degeneration
 b) Ageing
 d) Necrosis

52. Which organelle in the cell, other than nucleus, contains DNA? [2001]

- a) Centriole
 c) Lysosome
 b) Golgi apparatus
 d) Mitochondrion

53. Epiphytes are plants which depend on other plants for: [2001]

- a) Food
 b) Mechanical support
 c) Shade
 d) Water

54. Antigen is a substance which: [2001]

- a) Destroys harmful bacteria
 b) Is used to treat poisoning
 c) Lowers body-temperature
 d) Stimulates formation of antibody

55. Which of the following features of DNA makes it uniquely suited to store and transmit genetic information from generation to generation? [2001]

- a) Complementarity of the two strands
 b) Double helix
 c) Number of base-pairs per turn
 d) Sugar-phosphate backbone

56. Match List I with List II and select the correct answer using the codes given below the Lists: [2001]

List I (Bone)	List II (Name)
I. Breast-bone	A) Clavicle
II. Collar-bone	B) Patella
III. Knee-cap	C) Scapula
IV. Shoulder blade	D) Sternum

Codes:

- a) I-D, II-A, III-C, IV-B
- b) I-A, II-D, III-C, IV-B
- c) I-A, II-D, III-B, IV-C
- d) I-D, II-A, III-B, IV-C

57. Consider the following statements: [2001]

- I. Tapeworm is a hermaphrodite.
- II. Round-worm has separate sexes.
- III. Filaria is caused by a nematode.
- IV. Guinea-worm is an annelid.

Which of these are correct?

- a) I and II
- b) I, II and III
- c) III and IV
- d) II, III and IV

58. Match List I with List II and select the correct answer using the codes given below the Lists: [2001]

List I (Achievement in genetics)	List II (Scientist)
I. Discovery of transduction and Conjugation in bacteria	A) Khurana
II. Establishing the sex-linked inheritance	B) Kornberg
III. Isolation of DNA polymerase from E. coli	C) Lederberg
IV. Establishing the complete genetic code	D) Morgan
	E) Ochoa

Codes:

- a) I-D, II-C, III-B, IV-A
- b) I-C, II-D, III-A, IV-E
- c) I-D, II-C, III-A, IV-E
- d) I-C, II-D, III-B, IV-A

59. In the eye donation, which part of the eye is transplanted from the donor? [2001]

- a) Cornea
- b) Lens
- c) Retina
- d) The whole eye

60. A man whose blood group is not known meets with a serious accident and needs blood transfusion immediately. Which one of the blood groups mentioned below and readily available in the hospital will be safe for transfusion? [2001]

- a) O, Rh-
- b) O, Rh+
- c) AB, Rh-
- d) AB, Rh+

61. "Metastasis" is the process by which: [2001]

- a) Cells divide rapidly under the influence of drugs
- b) Cancer cells spread through the blood or lymphatic system to other sites or organs
- c) The chromosomes in cell nuclei are attached to the spindle before moving to the anaphase poles
- d) Cancer cells are successfully inhibited to divide any further

62. Match List I with List II and select the correct answer using the codes given below the Lists: [2001]

List I (Substance)	List II (Physiological role)
I. Ptyalin	A) Converts angiotensinogen in blood into angiotensin
II. Pepsin	B) Digests starch
III. Renin	C) Digests proteins
IV. Oxytocin	D) Hydrolyses fats
	E) Induces contraction of smooth muscles

Codes:

- a) I-B, II-C, III-A, IV-E

- b) I-C, II-D, III-B, IV-E
 c) I-B, II-C, IH-E, IV-A
 d) I-C, II-A, III-B, IV-D

63. Which one of the following organisms can serve as a biofertiliser for rice crop? [2000]

- a) Blue-green algae
 b) Rhizobium sp
 c) Mycorrhizal fungi
 d) Azotobacter sp

64. At which stage in its life-cycle does the silkworm yield the fibre of commerce? [2000]

- a) Egg b) Larva
 c) Pupa d) Imago

65. Match List I (Diseases) with List II (Types of disease) and select the correct answer using the codes given below the Lists: [2000]

List I	List II
I. Haemophilia	A) Deficiency disease
II. Diabetes	B) Genetic disease
III. Rickets	C) Hormonal disorder
IV. Ringworm	D) Fungal infection

Codes:

- a) I-B, II-C, III-D, IV-A
 b) I-B, II-C, III-A, IV-D
 c) I-C, II-B, III-A, IV-D
 d) I-C, II-B, III-D, IV-A

66. The blood glucose level is commonly expressed as: [2000]

- a) mm of Hg

- b) milligram per decilitre
 c) parts per million
 d) grams per litre

67. Phytotron is a facility to: [2000]

- a) Grow plants under disease-free conditions
 b) Conserve endangered species of plants
 c) Grow plants under controlled conditions
 d) Induce mutations

68. Match List I (Endocrine glands) with List II (Hormones secreted) and select the correct answer using the codes given below the Lists: [2000]

List I	List II
I. Gonads	A) Insulin
II. Pituitary	B) Progesterone
III. Pancreas	C) Growth hormones
IV. Adrenal	D) Cortisone

Codes:

- a) I-C, II-B, III-D, IV-A
 b) I-B, II-C, III-D, IV-A
 c) I-B, II-C, III-A, IV-D
 d) I-C, II-B, III-A, IV-D

69. Insect-resistant cotton plants have been genetically engineered by inserting a gene from a/an: [2000]

- a) Virus b) Bacterium
 c) Insect d) Plant

70. Hybridoma technology is a new biotechnological approach for commercial production of: [2000]

- a) Monoclonal antibodies
 b) Interferon
 c) Antibodies
 d) Alcohol

71. The sensation of fatigue in the muscles after prolonged strenuous physical work is caused by: [2000]

- a) A decrease in the supply of oxygen
- b) Minor wear and tear of muscle fibres
- c) The depletion of glucose
- d) The accumulation of lactic acid

72. Assertion (A): In human beings, the females play a major role in determining the sex of the offspring.: [2000]

Reason (R): Women have two- 'X' chromosomes.

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not a correct explanation of A
- c) A is true, but R is false
- d) A is false, but R is true

73. Assertion (A): "DNA Finger- printing" has become a powerful tool to establish paternity and identity of criminals in rape and assault cases.: [2000]

Reason (R): Trace evidences such as hairs, saliva and dried semen are adequate for DNA analysis.

- a) Both A and R are true, and R is the correct explanation of A
- b) Both A and R are true, but R is not a correct explanation of A
- c) A is true, but R is false
- d) A is false, but R is true

74. In eye donation, which one of the following parts of donor's eye is utilised? [1999]

- a) Iris b) Lens
- c) Cornea d) Retina

75. Match the hormones in List I with items in List II and select the correct answer using the codes given below the Lists: [1999]

List I	List II
I. Adrenaline	A) Anger, fear, danger
II. Estrogen	B) Attracting partners through sense of smell
III. Insulin	C) Females
IV. Pheromones	D) Glucose

Codes:

- a) I-C, II-A, III-D, IV-B
- b) I-A, II-C, III-B, IV-D
- c) I-A, II-C, III-D, IV-B
- d) I-C, II-A, III-B, IV-D

76. Neem tree has acquired industrial importance as a source of: [1999]

- a) Biopesticide and anti-fertility compound
- b) Anti-fertility compound, biofertilizer and anti-cancer drug
- c) Biofertilizer, biopesticide and anti-fertility compound
- d) Anti-cancer drug, biopesticide and biofertilizer

77. Match List I (Drugs / Chemicals) with List II (Their uses) and select the correct answer using the codes given below the Lists: [1999]

List I	List II
I. Atropine	A) Local anaesthesia
II. Ether	B) Heart trouble
III. Nitroglycerine	C) Dilation of pupil
IV. Pyrethrin	D) Mosquito control

Codes:

- a) I-A, II-C, III-B, IV-D
- b) I-A, II-C, III-D, IV-B
- c) I-C, II-A, III-D, IV-B
- d) I-C, II-A, III-B, IV-D

78. When ants bite, they inject: [1999]

- a) Glacial acetic acid b) Methanol
- c) Formic acid d) Stearic acid

79. Which one of the following is a useful functional association between fungi and the roots of higher plants? [1999]

- a) Biofertilizer b) Coralloid root
- c) Lichen d) Mycorrhiza

80. Consumption of fish is considered to be healthy when compared to flesh of other animals because fish contains: [1998]

- a) Polyunsaturated fatty acids
- b) Saturated fatty acids
- c) Essential vitamins
- d) More carbohydrates and proteins

81. Haemophilia is a genetic disorder which leads to: [1998]

- a) Decrease in haemoglobin level
- b) Rheumatic heart disease
- c) Decrease in WBC
- d) Non-clotting of blood

82. Which one of the following types of micro-organisms is most widely used in industries? [1998]

- a) Bacteria
- b) Bacteria and fungi
- c) Bacteria and algae
- d) Bacteria, micro-algae and fungi

83. Match List I with List II and select the correct answer using the codes given below the lists: [1998]

List I	List II
I. Fruit	A) Ovule
II. Seed	B) Leaf
III. Wood	C) Stem
IV. Starch	D) Ovary

Codes:

- a) I-B, II-A, III-C, IV-D
- b) I-D, II-A, III-C, IV-B
- c) I-B, II-C, III-A, IV-D
- d) I-D, II-C, III-A, IV-B

84. Match List I with List II and select the correct answer using the codes given below the lists: [1998]

List I	List II
I. Theory of Mutation	A) Beadk and Tatum
II. Theory of Evolution	B) Jacob and Monod
III. One gene one enzyme hypothesis	C) Darwin
IV. Operon concept	D) De Vries

Codes:

- a) I-C, II-D, III-A, IV-B
- b) I-D, II-C, III-A, IV-B
- c) I-D, II-C, III-B, IV-A
- d) I-C, II-D, III-B, IV-A

85. Which one of the following statements regarding starch and cellulose is not correct? [1998]

- a) Both of them are of plant origin
- b) Both of them are polymers
- c) Both of them give colour with iodine
- d) Both of them are made up of glucose molecules

86. Ergotism is due to consumption of: [1998]

- a) Contaminated grains
- b) Rotting vegetables
- c) Contaminated water
- d) Stale cooked food

87. The complete conversion of glucose in the presence of oxygen into carbon dioxide and water with release of energy is called: [1998]

- a) Aerobic respiration
- b) Anaerobic respiration
- c) Glycolysis
- d) Hydrolysis

88. The pituitary gland by virtue of its tropic hormones controls the secretory activity of other endocrine glands. Which one of the following endocrine glands can function independent of the pituitary gland? [1997]

- a) Thyroid
- b) Gonads
- c) Adrenals
- d) Parathyroid

89. Oxygen transportation in a human body takes place through: [1997]

- I. Blood
- II. Lungs
- III. Tissue

The correct sequence of transportation is

- a) I, II, III
- b) III, I, II
- c) II, I, III
- d) I, III, II

90. Corpus luteum is a mass of cells found in: [1997]

- a) Brain
- b) Ovary
- c) Pancreas
- d) Spleen

91. Which one of the following organisms is likely to show the highest- concentration of DDT once it has been introduced into the ecosystem? [1997]

- a) Grasshopper
- b) Toad
- c) Snake
- d) Cattle

92. Alpha-keratin is a protein present in: [1997]

- a) Blood
- b) Skin
- c) Wool
- d) Eggs

93. Which one of the following is cultivated by transplanting seedlings? [1997]

- a) Maize
- b) Sorghum
- c) Onion
- d) Soyabean

94. What is the average fat content of buffalo milk? [1997]

- a) 7.2%
- b) 4.5%
- c) 9.0%
- d) 10.0%

95. The major component of honey is: [1997]

- a) Glucose
- b) Sucrose
- c) Maltose
- d) Fructose

96. Arteries supplying blood to the heart are called: [1997]

- a) Carotid arteries
- b) Hepatic arteries
- c) Coronary arteries
- d) Pulmonary arteries

97. Recommended daily intake of proteins for a moderately active woman is: [1997]

- a) 30 g
- b) 37 g
- c) 40 g
- d) 46 g

98. The sequencing of the entire genome (the totality of all genes) of an organism was completed in 1996. The organism was: [1997]

- a) Albino mouse
- b) Yeast
- c) Human being
- d) Plasmodium vivax

99. Antigen is a substance which: [1997]

- a) Lowers body temperature
- b) Destroys harmful bacteria
- c) Triggers the immune system
- d) Is used as an antidote to poison

100. Which one of the following is a modified stem? [1996]

- a) Carrot
- b) Sweet Potato
- c) Coconut
- d) Potato

101. Fat present below the skin surface in our body, acts as a barrier against: [1996]

- a) Loss of heat from the body
- b) Loss of essential body fluids
- c) Loss of salts from the body
- d) Entry of harmful micro-organisms from the environment

102. Which of the following professional (s) are more likely to run the risk of a permanent change in their cell's DNA? [1996]

- I. Researchers using carbon-14 isotope
- II. X-ray technician
- III. Coal miner
- IV. Dyer and Painter

Select the correct answer by using the codes given below:

- a) II alone
- b) I, II and III
- c) I, II and IV
- d) I, III and IV

103. Which one of the following is not an essential micronutrient for plants? [1996]

- a) Boron
- b) Zinc
- c) Sodium
- d) Copper

104. Of the four landmarks in medical history given below, which one was the first to take place? [1996]

- a) Organ transplant
- b) Bypass surgery

- c) Test-tube baby
- d) Plastic surgery

105. The nutritional deficiency condition that needs to be given top priority for remedial action in India today is: [1996]

- a) Scurvy
- b) Rickets
- c) Xerophthalmia
- d) Pellagra

106. Living organisms require at least 27 elements of which 15 are metals. Among these, those required in major quantities include: [1996]

- a) Potassium, Manganese, Molybdenum & Calcium
- b) Potassium, Molybdenum, Copper & Calcium
- c) Potassium, Sodium, Magnesium & Calcium
- d) Sodium, Magnesium, Copper & Manganese

107. Match List I with List II and select the correct answer by using codes given below the lists: [1996]

List I	List II
I. Vitamin	A) Pepsin
II. Enzyme	B) Carotene
III. Hormone	C) Keratin
IV. Protein	D) Progesterone

Codes:

- a) I - A, II - B, III - C, IV - D
- b) I - B, II - A, III - D, IV - C
- c) I - B, II - A, III - C, IV - D
- d) I - A, II - B, III - D, IV - C

108. Physico-chemical characteristics of water in water sources undergo changes due to: [1996]

- a) Aquatic macrophytes
- b) Aquatic fungi
- c) Effluents
- d) Evapotranspiration

109. Ecologists have so far known, found and certified a large number of species in the plant and animal kingdom. In terms of members, the largest found and identified so far are from among the: [1996]

- a) Fungi b) Plants
- c) Insects d) Bacteria

110. It is possible to produce seedless tomato fruits by: [1996]

- a) Applying trace elements in tomato fields
- b) Spraying mineral solution on plants
- c) Spraying hormones on flowers
- d) Applying fertilizers containing radioactive elements

111. Which of the following would lead to 'malnutrition'? [1996]

- I. Overnutrition
- II. Undernutrition
- III. Imbalanced nutrition.

Select the correct answer by using the codes gives below:

- a) II alone b) II and III
- c) I and III d) I, II and III

112. Besides proteins and carbohydrates, other elements of nutritional value found in milk include: [1996]

- a) Calcium, potassium and iron
- b) Calcium and potassium
- c) Potassium and iron
- d) Calcium and iron

113. Match List I (Physiological processes) with List II (Cell organelles) and select the

correct answer by using the codes given below the lists: [1996]

List I	List II
I. Photosynthesis	A) Plasma membrane
II. Mineral uptake	B) Chloroplast
III. ATP formation	C) Mitochondria
IV. Protein Synthesis	D) Ribosomes

Codes:

- a) I - A, II - B, III - C, IV - D
- b) I - A, II - B, III - D, IV - C
- c) I - B, II - A, III - C, IV - D
- d) I - B, II - A, III - D, IV - C

114. Most of the desert plants bloom during night time because: [1995]

- a) Their blooming is controlled by low temperature
- b) They are sensitive to the phases of moon
- c) The desert insects eat away flowers during day time
- d) The desert insects are active during night time

115. Which of the following elements are present in all proteins? [1995]

- I. Carbon
- II. Hydrogen
- III. Oxygen
- IV. Nitrogen

Select the correct answer from the codes given below:

Codes:

- a) II and III b) I, II and IV
- c) I, III and IV d) I, II, III and IV

116. Which one of the following hormones contains iodine? [1995]

- a) Thyroxine b) Testosterone

c) Insulin

d) Adrenaline

117. "By weaving threads of physics, chemistry and biology into a rich tapestry, this remarkable scientist provided a unifying molecular view of the world... He touted the wonderful properties of Vitamin C first as a cure of common cold and later as a preventive agent against cancer." One of science's major figures of all time referred to above is: [1995]

- a) G.N. Lewis
- b) Linus Carl Pauling
- c) Fritz London
- d) Walter Heitler

118. A person with 'AB' blood group is sometimes called a universal recipient because of the: [1995]

- a) Lack of antigen in his blood
- b) Lack of antibodies in his blood
- c) Lack of both antigens and antibodies in his blood
- d) Presence of antibodies in his blood

119. Which one of the following is a membrane that protects the developing embryo from desiccation? [1995]

- a) Amnion
- b) Allantois
- c) Chorion
- d) Yolk sac

Answers:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
a	b	a	d	c	d	c	c	d	c	b	d	b	c	b	b

17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
b	a	b	d	b	a	d	a	c	a	c	b	c	a	d	d

33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
a	d	c	b	a	d	d	a	b	-	a	a	a	c	c	d

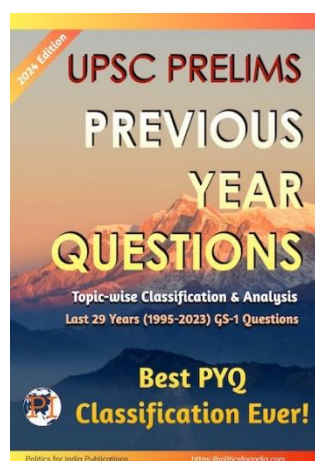
49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64
b	a	a	d	b	d	a	d	b	d	a	b	b	a	a	c

65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
b	b	c	c	b	a	d	d	a	c	c	c	d	c	d	a

81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96
d	d	b	b	c	a	a	d	c	b	c	c	c	a	d	c

97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112
d	b	c	d	a	c	c	d	c	c	b	c	c	c	d	b

113	114	115	116	117	118	119
c	d	d	a	b	b	a

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