

**NEET-UG – 2013 TEST PAPER WITH ANSWER  
(HELD ON SUNDAY 05<sup>th</sup> MAY, 2013)**

1. The eye of octopus and eye of cat show different patterns of structure, yet they perform similar function. This is an example of :
- (1) Analogous organs that have evolved due to divergent evolution
  - (2) Homologous organs that have evolved due to convergent evolution
  - (3) Homologous organs that have evolved due to divergent evolution
  - (4) Analogous organs that have evolved due to convergent evolution

**Ans. (4)**

2. Select the correct statement with respect to locomotion in humans:
- (1) The joint between adjacent vertebrae is a fibrous joint
  - (2) A decreased level of progesterone causes osteoporosis in old people
  - (3) Accumulation of uric acid crystals in joints causes their inflammation
  - (4) The vertebral column has 10 thoracic vertebrae

**Ans. (3)**

3. A phosphoglyceride is always made up of :
- (1) a saturated or unsaturated fatty acid esterified to a phosphate group which is also attached to a glycerol molecule
  - (2) only a saturated fatty acid esterified to a glycerol molecule to which a phosphate group is also attached
  - (3) only a unsaturated fatty acid esterified to a glycerol molecule to which a phosphate group is also attached
  - (4) a saturated or unsaturated fatty acid esterified to a glycerol molecule to which a phosphate group is also attached

**Ans. (4)**

4. Perisperm differs from endosperm in:
- (1) its formation by fusion of secondary nucleus with several sperms
  - (2) being a haploid tissue
  - (3) having no reserve food
  - (4) being a diploid tissue

**Ans. (4)**

5. A sedentary sea anemone gets attached to the shell lining of hermit crab. The association is :
- (1) Amensalism
  - (2) Ectoparasitism
  - (3) Symbiosis
  - (4) Commensalism

**Ans. (4)**

6. The cell-mediated immunity inside the human body is carried out by :
- (1) Erythrocytes
  - (2) T-lymphocytes
  - (3) B-lymphocytes
  - (4) Thrombocytes

**Ans. (2)**

7. Which of the following are likely to be present in deep sea water ?
- (1) Saprophytic fungi
  - (2) Archaeobacteria
  - (3) Eubacteria
  - (4) Blue-green algae

**Ans. (2)**

8. One of the representatives of Phylum Arthropoda is :
- (1) flying fish
  - (2) cuttlefish
  - (3) silverfish
  - (4) pufferfish

**Ans. (3)**

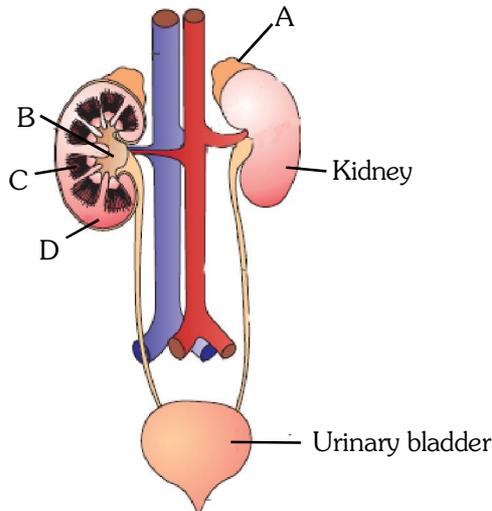
9. Megasporengium is equivalent to :
- (1) Ovule
  - (2) Embryo sac
  - (3) Fruit
  - (4) Nucellus

**Ans. (1)**

10. Kyoto Protocol was endorsed at :
- |             |             |
|-------------|-------------|
| (1) CoP - 4 | (2) CoP - 3 |
| (3) CoP - 5 | (4) CoP - 6 |

**Ans. (2)**

11. Figure shows human urinary system with structures labelled A to D. Select option which correctly identifies them and gives their characteristics and/or functions.



- (1) D-Cortex - outer part of kidney and do not contain any part of nephrons
- (2) A-Adrenal gland - located at the anterior part of kidney. Secrete Catecholamines which stimulate glycogen breakdown
- (3) B-Pelvis - broad funnel shaped space inner to hilum, directly connected to loops of Henle
- (4) C-Medulla-inner zone of kidney and contains complete nephrons

Ans. (2)

12. In china rose the flowers are :

- (1) Zygomorphic, epigynous with twisted aestivation
- (2) Actinomorphic, hypogynous with twisted aestivation
- (3) Actinomorphic, epigynous with valvate aestivation
- (4) Zygomorphic, hypogynous with imbricate aestivation

Ans. (2)

13. The Golgi complex plays a major role :

- (1) in post translational modification of proteins and glycosidation of lipids
- (2) in trapping the light and transforming it into chemical energy
- (3) in digesting proteins and carbohydrates
- (4) as energy transferring organelles

Ans. (1)

14. What external changes are visible after the last moult of a cockroach nymph?  
 (1) Labium develops  
 (2) Mandibles become harder  
 (3) Anal cerci develop  
 (4) Both fore wings with hind wings develop

Ans. (4)

15. Isogamous condition with non-flagallated gametes is found in :  
 (1) *Fucus* (2) *Chlamydomonas*  
 (3) *Spirogyra* (4) *Volvox*

Ans. (3)

16. Transition state structure of the substrate formed during an enzymatic reaction is :  
 (1) permanent and stable  
 (2) transient but stable  
 (3) permanent but unstable  
 (4) transient and unstable

Ans. (4)

17. Select the answer which correctly matches the endocrine gland with the hormone it secretes and its function/deficiency symptom :

	Endocrine gland	Hormone	Function/deficiency symptoms
(1)	Corpus luteum	Testosterone	Stimulates spermatogenesis
(2)	Anterior pituitary	Oxytocin	Stimulates uterus contraction during child birth
(3)	Posterior pituitary	Growth Hormone (GH)	Oversecretion stimulates abnormal growth
(4)	Thyroid gland	Thyroxine	Lack of iodine in diet results in goitre

Ans. (4)

18. The colonies of recombinant bacteria appear white in contrast to blue colonies of non-recombinant bacteria because of :  
 (1) Inactivation of glycosidase enzyme in recombinant bacteria  
 (2) Non-recombinant bacteria containing beta-galactosidase  
 (3) Insertional inactivation of alpha-galactosidase in non-recombinant bacteria  
 (4) Insertional inactivation of alpha-galactosidase in recombinant bacteria

Ans. (2)

- 19.** Monoecious plant of *Chara* shows occurrence of :
- (1) upper oogonium and lower antheridium on the same plant
  - (2) antheridiophore and archegoniophore on the same plant
  - (3) stamen and carpel on the same plant
  - (4) upper antheridium and lower oogonium on the same plant

**Ans. (1)**

- 20.** Advantage of cleistogamy is :-

- (1) Vivipary
- (2) Higher genetic variability
- (3) More vigorous offspring
- (4) No dependence on pollinators

**Ans. (4)**

- 21.** The H-zone in the skeletal muscle fibre is due to :

- (1) extension of myosin filaments in the central portion of the A-band
- (2) the absence of myofibrils in the central portion of A-band
- (3) the central gap between myosin filaments in the A-band
- (4) the central gap between actin filaments extending through myosin filaments in the A-band

**Ans. (4)**

- 22.** Artificial insemination means :

- (1) introduction of sperms of a healthy donor directly into the ovary
- (2) transfer of sperms of a healthy donor to a test tube containing ova
- (3) transfer of sperms of husband to a test tube containing ova
- (4) artificial introduction of sperms of a healthy donor into the vagina

**Ans. (4)**

- 23.** Which group of animals belong to the same phylum?

- (1) Sponge, Sea anemone, Starfish
- (2) Malarial parasite, *Amoeba*, Mosquito
- (3) Earthworm, Pinworm, Tapeworm
- (4) Prawn, Scorpion, *Locusta*

**Ans. (4)**

- 24.** Seed coat is **not** thin, membranous in :

- (1) Gram
- (2) Maize
- (3) Coconut
- (4) Groundnut

**Ans. (3)**

- 25.** If two persons with 'AB' blood group marry and have sufficiently large number of children, these children could be classified as 'A' blood group : 'AB' blood group 'B' blood group in 1 : 2 : 1 ratio. Modern technique of protein electrophoresis reveals presence of both 'A' and 'B' type proteins in 'AB' blood group individuals. This is an example of :
- (1) Complete dominance
  - (2) Codominance
  - (3) Incomplete dominance
  - (4) Partial dominance

**Ans. (2)**

- 26.** Which of the following **cannot** be detected in a developing foetus by amniocentesis ?

- (1) Jaundice
- (2) Klinefelter syndrome
- (3) Sex of the foetus
- (4) Down syndrome

**Ans. (1)**

- 27.** The first stable product of fixation of atmospheric nitrogen in leguminous plants is :

- (1) Glutamate
- (2)  $\text{NO}_2^-$
- (3) Ammonia
- (4)  $\text{NO}_3^-$

**Ans. (3)**

- 28.** A biologist studied the population of rats in a barn. He found that the average natality was 250, average mortality 240, immigration 20 and emigration 30. The net increase in population is :

- (1) Zero
- (2) 10
- (3) 15
- (4) 05

**Ans. (1)**

- 29.** Secondary productivity is rate of formation of new organic matter by :

- (1) Decomposer
- (2) Producer
- (3) Parasite
- (4) Consumer

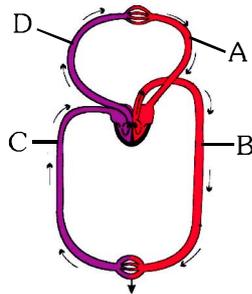
**Ans. (4)**

- 30.** Infection of *Ascaris* usually occurs by :

- (1) mosquito bite
- (2) drinking water containing eggs of *Ascaris*
- (3) eating imperfectly cooked pork.
- (4) Tse-tse fly

**Ans. (2)**

31. Figure shows schematic plan of blood circulation in humans with labels A to D, Identify the label and give its function/s.



- (1) D-Dorsal aorta-takes blood from heart to body parts,  $PO_2 = 95 \text{ mm Hg}$
- (2) A-Pulmonary vein-takes impure blood from body parts,  $PO_2 = 60 \text{ mm Hg}$
- (3) B-Pulmonary artery-takes blood from heart to lungs,  $PO_2 = 90 \text{ mm Hg}$
- (4) C-Vena Cava-takes blood from body parts the right auricle,  $PCO_2 = 45 \text{ mm Hg}$

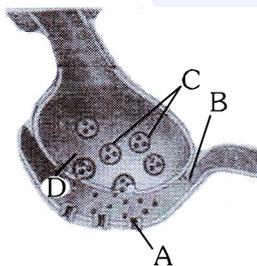
Ans. (4)

32. The tendency of population to remain in genetic equilibrium may be disturbed by :

- (1) lack of random mating
- (2) random mating
- (3) lack of migration
- (4) lack of mutations

Ans. (1)

33. A diagram showing axon terminal and synapse is given. Identify correctly at least two of A-D.



- (1) C-Neurotransmitter  
D- $Ca^{++}$
- (2) A-Receptor  
C-Synaptic vesicles
- (3) B-Synaptic connection  
D- $K^+$
- (4) A-Neurotransmitter  
B-Synaptic cleft

Ans. (2)

34. A good producer of citric acid is :

- (1) *Saccharomyces*
- (2) *Aspergillus*
- (3) *Pseudomonas*
- (4) *Clostridium*

Ans. (2)

35. Age of a tree can be estimated by :

- (1) diameter of its heartwood
- (2) its height and girth
- (3) biomass
- (4) number of annual rings

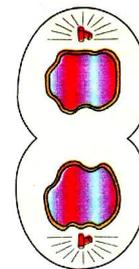
Ans. (4)

36. The process by which organisms with different evolutionary history evolve similar phenotypic adaptation in response to a common environmental challenge, is called :

- (1) Adaptive radiation
- (2) Natural selection
- (3) Convergent evolution
- (4) Non-random evolution

Ans. (3)

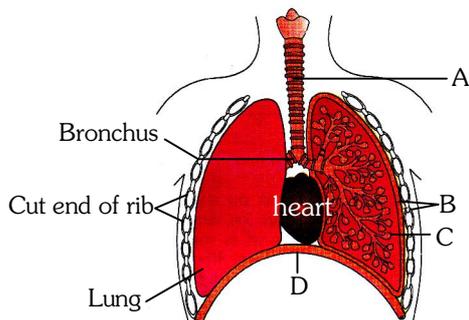
37. A stage in cell division is shown in the figure. Select the answer which gives correct identification of the stage with its characteristics.



(1)	Telophase	Endoplasmic reticulum and nucleolus not reformed yet.
(2)	Telophase	Nuclear envelop reforms, golgi complex reforms.
(3)	Late anaphase	Chromosomes move a away from equatorial plate, golgi complex not present.
(4)	Cytokinesis	Cell plate formed, mitochondria distributed between two daughter cells.

Ans. (2)

38. The figure shows a diagrammatic view of human respiratory system with labels A, B, C and D. Select the option which gives correct identification and main function and/or characteristic :-



- (1) D – Lower end of lungs – diaphragm pulls it down during inspiration
- (2) A – trachea - long tube supported by complete cartilaginous rings for conducting inspired air
- (3) B – pleural membrane - surround ribs on both sides to provide cushion against rubbing
- (4) C – Alveoli - thin walled vascular bag like structures for exchange of gases

Ans. (4)

39. Interfascicular cambium develops from the cells of:

- (1) Pericycle
- (2) Medullary rays
- (3) Xylem parenchyma
- (4) Endodermis

Ans. (2)

40. During seed germination its stored food is mobilized by :

- |                 |              |
|-----------------|--------------|
| (1) Gibberellin | (2) Ethylene |
| (3) Cytokinin   | (4) ABA      |

Ans. (1)

41. Meiosis takes place in :

- |               |              |
|---------------|--------------|
| (1) Megaspore | (2) Meiocyte |
| (3) Conidia   | (4) Gemmule  |

Ans. (2)

42. According to Darwin, the organic evolution is due to :

- (1) Reduced feeding efficiency in one species due to the presence of interfering species
- (2) Intraspecific competition
- (3) Interspecific competition
- (4) Competition within closely related species

Ans. (3)

43. Which of the following criteria **does not** pertain to facilitated transport ?

- (1) Uphill transport
- (2) Requirement of special membrane proteins
- (3) High selectivity
- (4) Transport saturation

Ans. (1)

44. A major site for synthesis of lipids is :

- (1) Nucleoplasm
- (2) RER
- (3) SER
- (4) Symplast

Ans. (3)

45. Natural reservoir of phosphorus is :

- (1) Fossils
- (2) Sea water
- (3) Animal bones
- (4) Rock

Ans. (4)

46. Which of the metabolites is common to respiration-mediated breakdown of fats, carbohydrates and proteins ?

- (1) Acetyl CoA
- (2) Glucose-6-phosphate
- (3) Fructose 1,6-bisphosphate
- (4) Pyruvic acid

Ans. (1)

47. Which one of the following processes during decomposition is **correctly** described ?

- (1) Leaching – Water soluble inorganic nutrients rise to the top layers of soil
- (2) Fragmentation – Carried out by organisms such as earthworm
- (3) Humification – Leads to the accumulation of a dark coloured substance humus which undergoes microbial action at a very fast rate
- (4) Catabolism – Last step in the decomposition under fully anaerobic condition

Ans. (2)

48. If both parents are carriers for thalassemia, which is an autosomal recessive disorder, what are the chances of pregnancy resulting in an affected child?

- |          |               |
|----------|---------------|
| (1) 100% | (2) No chance |
| (3) 50%  | (4) 25%       |

Ans. (4)

- 49.** Which of the following statements is not true of two genes that show 50% recombination frequency ?  
 (1) If the genes are present on the same chromosome, they undergo more than one crossovers in every meiosis  
 (2) The genes may be on different chromosomes  
 (3) The genes are tightly linked  
 (4) The genes show independent assortment

**Ans. (3)**

- 50.** One of the legal methods of birth control is :  
 (1) by a premature ejaculation during coitus  
 (2) abortion by taking an appropriate medicine  
 (3) by abstaining from coitus from day 10 to 17 of the menstrual cycle  
 (4) by having coitus at the time of day break

**Ans. (2)**

- 51.** Besides paddy fields, cyanobacteria are also found inside vegetative part of :  
 (1) *Psilotum* (2) *Pinus*  
 (3) *Cycas* (4) *Equisetum*

**Ans. (3)**

- 52.** Which of the following are correctly matched with respect to their taxonomic classification ?  
 (1) Spiny anteater, sea urchin, sea cucumber – Echinodermata  
 (2) Flying fish, cuttlefish, silverfish – Pisces  
 (3) Centipede, millipede, spider, scorpion – Insecta  
 (4) House fly, butterfly, tsetsefly, silverfish – Insecta

**Ans. (4)**

- 53.** Variation in gene frequencies within populations can occur by chance rather than by natural selection. This is referred to as :  
 (1) Genetic load (2) Genetic flow  
 (3) Genetic drift (4) Random mating

**Ans. (3)**

- 54.** Select the correct match of the digested products in humans given in **column I** with their absorption site and mechanism in **column II**.

	Column I	Column II
(1)	Cholesterol, maltose	Large intestine, active absorption
(2)	Glycine, glucose	small intestine, active absorption
(3)	Fructose, Na <sup>+</sup>	small intestine, passive absorption
(4)	Glycerol, fatty acids	duodenum, move as chylomicrons

**Ans. (2)**

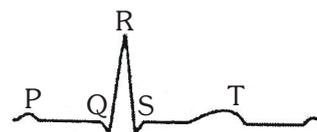
- 55.** Select the wrong statement :  
 (1) *Chlamydomonas* exhibits both isogamy and anisogamy and *Fucus* shows oogamy  
 (2) Isogametes are similar in structure, function and behaviour  
 (3) Anisogametes differ either in structure, function or behaviour  
 (4) In Oomycetes female gamete is smaller and motile, while male gamete is larger and non-motile

**Ans. (4)**

- 56.** Which Mendelism idea is depicted by a cross in which the F<sub>1</sub> generation resembles both the parents ?  
 (1) co-dominance  
 (2) incomplete dominance  
 (3) law of dominance  
 (4) inheritance of one gene

**Ans. (1)**

- 57.** The diagram given here is the standard ECG of a normal person. The P- wave represents the :



- (1) End of systole  
 (2) Contraction of both the atria  
 (3) Initiation of the ventricular contraction  
 (4) Beginning of the systole

**Ans. (2)**

- 58.** Which enzyme/s will be produced in a cell in which there is a nonsense mutation in the lac Y gene ?  
 (1) Lactose permease and transacetylase  
 (2) β-galactosidase  
 (3) Lactose permease  
 (4) Transacetylase

**Ans. (2)**

- 59.** The most abundant intracellular cation is :  
 (1) K<sup>+</sup> (2) Na<sup>+</sup>  
 (3) Ca<sup>++</sup> (4) H<sup>+</sup>

**Ans. (1)**

60. Which one of the following is **not** the function of placenta ? It :-
- (1) secretes oxytocin during parturition
  - (2) facilitates supply of oxygen and nutrients to embryo
  - (3) secretes estrogen
  - (4) facilitates removal of carbon dioxide and waste material from embryo

Ans. (1)

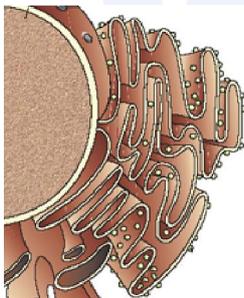
61. In plant breeding programme, the entire collection (of plants/seeds) having all the diverse alleles for all genes in a given crop is called :
- (1) germplasm collection
  - (2) selection of superior recombinants
  - (3) cross - hybridisation among the selected parents.
  - (4) evaluation and selection of parents

Ans. (1)

62. Which one of the following is **not** a correct statements ?
- (1) Key is taxonomic aid for identification of specimens
  - (2) Herbarium houses dried, pressed and preserved plant specimens
  - (3) Botanical gardens have collection of living plants for reference
  - (4) A museum has collection of photographs of plants and animals

Ans. (4)

63. Which one of the following organelle in the figure correctly matches with its function ?



- (1) Rough endoplasmic reticulum, protein synthesis
- (2) Rough endoplasmic reticulum, formation of glycoproteins
- (3) Golgi apparatus, protein synthesis
- (4) Golgi apparatus, formation of glycolipids

Ans. (1)

64. Which of the following represents maximum number of species among global biodiversity ?
- (1) Mosses and Ferns
  - (2) Algae
  - (3) Lichens
  - (4) Fungi

Ans. (4)

65. Which of the following Bt crops is being grown in India by the farmers ?
- (1) Soyabean
  - (2) Maize
  - (3) Cotton
  - (4) Brinjal

Ans. (3)

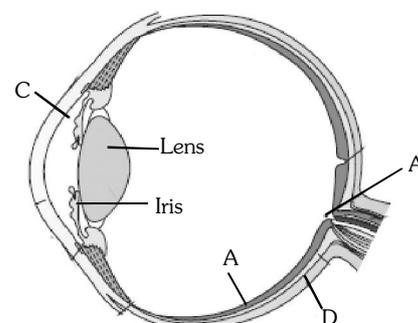
66. Read the following statements (A – E) and answer the question which follows them.
- (a) In liverworts, mosses and ferns gametophytes are free living
  - (b) Gymnosperms and some ferns are heterosporous
  - (c) Sexual reproduction in *Fucus*, *Volvox* and *Allbugo* is oogamous
  - (d) The sporophyte in liverworts is more elaborate than that in mosses
  - (E) Both, *Pinus* and *Marchantia* are dioecious
- How many of the above statements are correct ?
- (1) Four
  - (2) One
  - (3) Two
  - (4) Three

Ans. (4)

67. The essential chemical components of many coenzymes are :
- (1) Vitamins
  - (2) Proteins
  - (3) Nucleic acids
  - (4) Carbohydrates

Ans. (1)

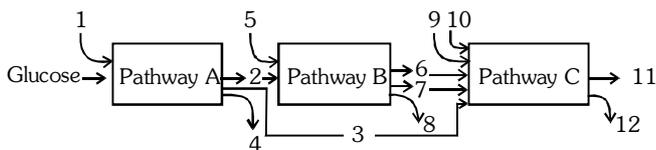
68. Parts A, B, C and D of the human eye are shown in the diagram. Select the option which gives correct identification along with its functions/characteristics:-



- (1) D- Choroid - its anterior part forms ciliary body
- (2) A - Retina - contains photo receptors—rods and cones
- (3) B - Blind spot - has only a few rods and cones
- (4) C - Aqueous chamber reflects the light which does not pass through the lens

Ans. (2)

69. The three boxes in this diagram represent the three major biosynthetic pathways in aerobic respiration. Arrows represent net reactants or products.



Arrow numbered 4, 8 and 12 can all be :

- (1)  $FAD^+$  or  $FADH_2$
- (2) NADH
- (3) ATP
- (4)  $H_2O$

Ans. (3)

70. Pigment-containing membranous extensions in some cyanobacteria are :

- (1) Chromatophores
- (2) Heterocysts
- (3) Basal bodies
- (4) Pneumatophores

Ans. (1)

71. Which one of the following statements is correct ?

- (1) Tapetum nourishes the developing pollen
- (2) Hard outer layer of pollen is called intine
- (3) Sporogenous tissue is haploid
- (4) Endothecium produces the micorspores

Ans. (1)

72. The characteristics and an example of a synovial joint in humans is :-

	Characteristics	Examples
(1)	lymph filled between two bones, limited movement	gliding joint between carpals
(2)	fluid cartilage between two bones, limited movements	Knee joint
(3)	fluid filled between two joints, provides cushion	skull bones
(4)	fluid filled synovial cavity between two bones	joint between atlas and axis

Ans. (4)

73. The Air Prevention and Control of Pollution Act came into force in :

- (1) 1990
- (2) 1975
- (3) 1981
- (4) 1985

Ans. (3)

74. Product of sexual reproduction generally generates:

- (1) Large biomass
- (2) Longer viability of seeds
- (3) Prolonged dormancy
- (4) New genetic combination leading to variation

Ans. (4)

75. Among bitter gourd, mustard, brinjal, pumpkin chinarose, lupin, cucumber, sunnhemp, gram, guava, bean, chilli, plum, petunia, tomato, rose, withania, potato, onion, aloe and tulip how many plants have hypogynous flower ?

- (1) Eighteen
- (2) Six
- (3) Ten
- (4) Fifteen

Ans. (4)

76. A pregnant female delivers a baby who suffers from stunted growth, mental retardation, low intelligence quotient and abnormal skin.

This is the result of :

- (1) Over secretion of pars distalis
- (2) Deficiency of iodine in diet
- (3) Low secretion of growth hormone
- (4) Cancer of the thyroid gland

Ans. (2)

77. Which of the following is **not** correctly matched for the organism and its cell wall degrading enzyme?

- (1) Fungi – Chitinase
- (2) Bacteria – Lysozyme
- (3) Plant cells – Cellulase
- (4) Algae – Methylase

Ans. (4)

78. Menstrual flow occurs due to lack of :

- (1) Vasopressin
- (2) Progesteron
- (3) FSH
- (4) Oxytocin

Ans. (2)

79. Global warming can be controlled by :

- (1) Increasing deforestation, reducing efficiency of energy usage
- (2) Reducing deforestation cutting down use of fossil fuel
- (3) Reducing reforestation, increasing the use of fossil fuel
- (4) Increasing deforestation slowing down the growth human population

Ans. (2)

80. Which one of the following is not used for *ex situ* plant conservation ?

- (1) Botanical Gardens
- (2) Field gene banks
- (3) Seed banks
- (4) Shifting cultivation

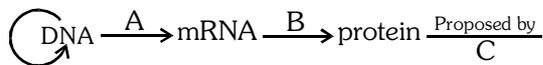
Ans. (4)

81. During sewage treatment, biogases are produced which include :

- (1) hydrogensulphide, nitrogen, methane
- (2) methane, hydrogensulphide, carbon dioxide
- (3) methane, oxygen, hydrogensulphide
- (4) hydrogensulphide, methane, sulphur dioxide

Ans. (2)

82. The diagram shows an important concept in the genetic implication of DNA. Fill in the blanks A to C :



- (1) A–translation B–extension C–Rosalind Franklin
- (2) A–transcription B–replication C–James Watson
- (3) A–translation B–transcription C–Erevin Chargaff
- (4) A–transcription B–translation C–Francis Crick

Ans. (4)

83. DNA fragments generated by the restriction endonucleases in a chemical reaction can be separated by :

- (1) Restriction mapping
- (2) Centrifugation
- (3) Polymerase chain reaction
- (3) Electrophoresis

Ans. (4)

84. The complex formed by a pair of synapsed homologous chromosomes is called :

- (1) Axoneme
- (2) Equatorial plate
- (3) Kinetochore
- (4) Bivalent

Ans. (4)

85. The **incorrect** statement with regard to Haemophilia is :

- (1) A single protein involved in the clotting of blood is affected
- (2) It is a sex-linked disease
- (3) It is a recessive disease
- (4) It is a dominant disease

Ans. (4)

86. Which of the following statements is **correct** in relation to the endocrine system ?

- (1) Releasing and inhibitory hormones are produced by the pituitary gland
- (2) Adenohypophysis is under direct neural regulation of the hypothalamus
- (3) Organs in the body like gastrointestinal tract, heart, kidney and liver do not produce any hormones
- (4) Non-nutrient chemicals produced by the body in trace amount that act as intercellular messenger are known as hormones

Ans. (4)

87. Lenticels are involved in :

- (1) Photosynthesis
- (2) Transpiration
- (3) Gaseous exchange
- (4) Food transport

Ans. (3)

88. Match the name of the animal (**column I**), with one characteristics (**column II**), and the phylum/class (**column III**) to which it belongs :

	Column I	Column II	Column III
(1)	<i>Adamsia</i>	radially symmetrical	Porifera
(2)	<i>Petromyzon</i>	ectoparasite	Cyclostomata
(3)	<i>Ichthyophis</i>	terrestrial	Reptilia
(4)	<i>Limulus</i>	Body covered by chitinous exoskeleton	Pisces

Ans. (2)

89. What is the correct sequence of sperm formation?

- (1) Spermatogonia, spermatocyte, spermatid, spermatozoa
- (2) Spermatid, spermatocyte, spermatogonia, spermatozoa
- (3) Spermatogonia, spermatocyte, spermatozoa, spermatid
- (4) Spermatogonia, spermatozoa, spermatocyte, spermatid

Ans. (1)

90. Macro molecule chitin is :

- (1) Simple polysaccharide
- (2) Nitrogen containing polysaccharide
- (3) Phosphorus containing polysaccharide
- (4) Sulphur containing polysaccharide

Ans. (2)