



# SRI CHAITANYA EDUCATIONAL INSTITUTIONS,INDIA

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SEC : SR.S +LONGTERM

DATE :

SUB : BOTANY

NEET GRAND TEST-19

Max.Marks :

01. Which of the following statements given below is not true regarding secondary growth in Dicot Stem ?

- (1) Annual ring is combination of spring wood and autumn wood produced in a year
- (2) Annual rings are formed in cortex region of stem
- (3) The amount of Heart Wood in a plant gradually increases year by year
- (4) Phellum is formed by activity of phellogen

Key: 2

Sol: Annual rings are formed in stele region of stem.

02. Study the following sequence

$5^1AGCTATGCATTGC3^1$

One of the following options does not cause/lead to frame shift mutation.

- (1) insertion of 'T' at 3<sup>rd</sup> position
- (2) Deletion of T, G at 6<sup>th</sup> and 7<sup>th</sup> position
- (3) Deletion of TTG at 10, 11, 12 positions
- (4) insertion of 'A' at 8<sup>th</sup> position

Key: 3

Sol: Insertion or deletion of three or multiples of three nucleotides do not lead to frame shift mutation.

03. Experimental verification of chromosomal theory of inheritance was done by

- |                       |                       |
|-----------------------|-----------------------|
| (1) T H Morgan        | (2) Sutton and Boveri |
| (3) Alfred Sturtevant | (4) G.J. Mendal       |

Key: 1

Sol: T.H. Morgan carried out experiments on *Drosophila*.

04. One of the following is a secondary metabolite involved in biological  $N_2$  fixation carried out by *Rhizobium*

- |                 |              |              |                    |
|-----------------|--------------|--------------|--------------------|
| (1) Anthocyanin | (2) Morphine | (3) Curcumin | (4) Concanavalin-A |
|-----------------|--------------|--------------|--------------------|

Key: 4



- (1) Growth (2) Metabolism  
(3) Reproduction (4) All the above

Key: 2

Sol: Metabolism without exception is defining feature.

12. During the development of female gametophyte of Angiosperms, cell walls are formed around \_\_\_\_\_ number of nuclei

- (1) 4 (2) 5 (3) 3 (4) 6

Key: 4

Sol: Cell wall is formed around six nuclei.

13. Which of the following is true for golden rice?

- (1) It is Vitamin A enriched with a gene from daffodil  
(2) It has pest resistant gene from *Bacillus thuringiensis* bacterium  
(3) It has yellow grains, because of a gene introduced from a primitive variety of rice  
(4) It is drought resistant rice variety

Key: 1

Sol: From Akash.

14. Respiratory quotient is measured by

- (1) Arc auxanometer (2) Ganong's photometer  
(3) Ganong's respirometer (4) Phytotron

Key: 3

Sol: Ganong's respirometer is used to measure RQ value.

15. Which of the following statement is not correct?

- (1) Synthesis of glycoprotein and glycolipids is function of golgi complex  
(2) Nucleolus is site for rRNA synthesis  
(3) Telocentric chromosome has one long arm and one short arm  
(4) Hydrolytic enzymes of Lysosomes are active under acidic pH

Key: 3

Sol: Telocentric chromosome has one arm only.

16. Match the following :

- (A) ss DNA (I) T-even bacteriophage  
(B) ss RNA (II) HIV  
(C) ds DNA (III)  $\phi \times 174$  bacteriophage

- |     | A   | B   | C   |
|-----|-----|-----|-----|
| (1) | I   | II  | III |
| (2) | II  | I   | III |
| (3) | III | II  | I   |
| (4) | I   | III | II  |

Key: 3

Sol: ssDNA →  $\phi \times 174$  bacteriophage, ssRNA → HIV, ds DNA →

T.even bacteriophage.

17. Biochemical characterization of transforming principle was carried out by

- (1) Alfred Hershey, Martha Chase
- (2) Oswald Avery, Colin Macleod, Maclyn McCarty
- (3) Frederick Griffith
- (4) Jacob, Monad

Key: 2

Sol: NCERT 101

18. Incorrect regarding restriction endonucleases

- (1) They break phosphodiester
- (2) The name is given as they restrict multiplication of viruses in bacterial cells
- (3) The enzyme recognizes a specific palindromic sequence and acts on it
- (4) They belong to class Lyases of enzymes

Key: 4

Sol: They belong to Hydrolases.

19. The activated toxin of *Bacillus thuringensis* binds to the surface of insect

- |                               |                              |
|-------------------------------|------------------------------|
| (1) Hind gut Epithelial cells | (2) Mid gut Epithelial cells |
| (3) Foregut Epithelial cells  | (4) Eye of corn borer        |

Key: 2

Sol: NCERT 208

20. Girdling experiments are carried out

- (1) To measure root pressure in plants
- (2) To prove transport of food in phloem
- (3) Guttation process in grasses
- (4) Transpiration process in plants

Key: 2

Sol: Food transport in phloem is proved by girdling experiments.

21. Epigynous flowers are seen in

- (1) *Datura*                      (2) *Allium cepa*                      (3) Mustard                      (4) Disc florets of *Tridax*

Key: 4

Sol: *Datura*, *A. cepa*, Mustard – Hypogynous.

22. (A) : Cofactor may have organic or inorganic nature.

(B) : Pyruvate dehydrogenase complex is an example for multienzyme complex.

- (1) (A) is true but (B) is false  
(2) (A) is false but (B) is true  
(3) (A) and (B) are false  
(4) (A) and (B) are true

Key: 4

Sol: Conceptual.

23. Pusa Gaurav is variety of

- (1) Okra (Bhindi)                      (2) Rapeseed (Mustard)  
(3) Flat bean                      (4) Chilli

Key: 2

Sol: Pusa gaurav – mustard variety resistant to Aphids.

24. Atmospheric nitrogen is regenerated and biologically fixed respectively by

- (1) *Nitrobacteria*, *Rhizobium*                      (2) *Rhizobium*, *Nitrosomonas*  
(3) *Pseudomonas*, *Rhizobium*                      (4) *Thiobacillus*, *Bacillus ramosus*

Key: 3

Sol: *Pseudomonas* → denitrifying bacteria, *Rhizobium* →  $N_2$  fixing bacteria.

25. Match the following :

- | I               | II                      |
|-----------------|-------------------------|
| (A) Lichens     | I. Pollution indicators |
| (B) Mycorrhizae | II. Symbiosis           |
| (C) Viroid      | III. Free RNA           |
| (D) Prion       | IV. CJD                 |

A      B      C      D

- (1) I      II      III      IV  
(2) II     I      IV      III  
(3) II     I      III     IV  
(4) IV    II      III     I

Key: 1

Sol: Direct NCERT.

26. Monocyclic, Heterocyclic Nitrogen base only found in RNA

- (1) Uracil                      (2) Cytosine                      (3) Thymine                      (4) Adenine

Key: 1

Sol: Uracil is found in RNA.

27. What is the direction of movement of water in xylem?

- (1) Upward    (2) Bi-directional  
(3) Multi-directional    (4) None of these

Key: 1

Sol: Xylem transport is unidirectional upward.

28. Duplication of centrioles occurs in following sub-phase of cell cycle

- (1)  $G_1$  phase                      (2) 'S' phase                      (3)  $G_2$  phase                      (4) Metaphase

Key: 2

Sol: NCERT.

29. Formation of pyruvic acid in glycolysis is catalysed by

- (1) Aldolase                      (2) Pyruvate kinase                      (3) Enolase                      (4) Hexokinase

Key: 2

Sol: Pyruvate kinase converts PEP to Pyruvic acid.

30. Identify the incorrect statement regarding signal peptide

- (1) Signal sequences are located on the N-terminus of some Proteins  
(2) They prompt a cell to translocate a protein  
(3) Signal sequences are cleaved on cisternae of Golgi complex  
(4) It is cleaved by signal peptidase

Key: 3

Sol: it is cleaved on cisternae of ER.

31. The separated DNA fragments can be visualized after staining the DNA with a compound called

- (1) Acetocarmine (2) Crystal violet (3) Fast green (4) Ethidium bromide

Key: 4

Sol: NCERT – 198 – 12 Class.

32. In *Antirrhinum* (Snapdragon), the following cross was carried out  $Rr \times Rr$ ; choose the incorrect statement regarding the above cross

- (1) Homozygous Red and Homozygous Pink colour plants are produced  
(2) Red and White flowered plants are produced in 1 : 1 ratio  
(3) Phenotypic and genotypic ratios are 1 : 2 : 1  
(4)  $1/2$  plants are homozygous

Key: 1

Sol: Pink coloured is expressed in heterozygous state only.

33. Discovery of triple helical structure of collagen was published in

- (1) Anatomy of Seed plants (2) Systema Naturae  
(3) Micrographia (4) Nature

Key: 4

Sol: NCERT – 125.

34. Chief conducting elements of water and minerals in xylem of Angiosperms are

- (1) Xylem fibres (2) Vessels  
(3) Xylem parenchyma (4) Sieve cells

Key: 2

Sol: Vessels are characteristic feature of Angiosperms.

35. *Lycopodium* is

- (1) Hair cap moss (2) Fire moss (3) Club moss (4) Liver worts

Key: 3

Sol: *Lycopodium* is club moss.

36. Xylem of dicot leaf is present towards

- (1) Abaxial surface (2) Dorsal surface (3) Adaxial surface (4) Lower surface of leaf

Key: 3

Sol: Adaxial surface/upper surface.

37. Aseptate coenocytic mycelium is observed in

- (1) Phycomycetes (2) Ascomycetes (3) Basidiomycetes (4) Deuteromycetes

Key: 1

Sol: Direct NCERT.

38. Which of the following is incorrect statement regarding Protista ?

- (1) It forms a link with plants, animals and fungi  
(2) Organisms have membrane bound cell organelles  
(3) They reproduce asexually and sexually also by zygote formation  
(4) All members of this kingdom are decomposers

Key: 4

Sol: Protista has autotrophs mixotrophs, saprophytes.

39. Which of the following is not an example for biocontrol agent ?

- (1) *Baculovirus* (2) *Trichoderma* (3) *Nostoc* (4) *Bacillus thuringiensis*

Key: 3

Sol: *Nostoc* is blue green alga.

40. Synapsis is pairing of

- (1) Any two chromosomes (2) Non-homologous chromosomes  
(3) Homologous chromosomes (4) Two maternal chromosomes

Key: 3

Sol: Pairing between two Homologous chromosomes.

41. In Mendelian dihybrid cross the probability of getting seed in with genotype Rryy, RrYy, rrYy, YYRr, in  $F_2$  generation is respectively

- (1)  $\frac{2}{16}, \frac{4}{16}, \frac{1}{8}, \frac{1}{8}$  (2)  $\frac{2}{16}, \frac{2}{16}, \frac{2}{16}, \frac{2}{16}$  (3)  $\frac{4}{16}, \frac{4}{16}, \frac{2}{16}, \frac{2}{16}$  (4)  $\frac{1}{8}, \frac{1}{4}, \frac{2}{8}, \frac{1}{16}$

Key: 1

Sol:  $yyRr - \frac{2}{16}; RrYy - \frac{4}{16}; rrYy - \frac{1}{8}; yyRr - \frac{1}{8}$

42. Incorrect regarding in mitochondrial electron transport system

- (1) Number of ATP molecules synthesized depend on nature of electron donor  
(2) Ubiquinone receives reducing equivalents via  $FADH_2$  also  
(3) Cytochrome 'c' is a immobile carrier protein attached to inner mitochondrial membrane  
(4) Complex IV has two copper centers

Key: 3



Sol: Cyt-c is mobile electron carrier.

43. Examples of secondary succession are
- (1) Newly created pond, Lands have been flooded
  - (2) Bare rock, newly created reservoir
  - (3) Burnt or cut forests, lands that have been flooded
  - (4) Bare rock, newly cooled lava

Key: 3

Sol: NCERT direct.

44. Perisperm is present in seed of
- (1) *Dolichos*            (2) Orchids            (3) Blackpepper            (4) *Pisum*

Key: 3

Sol: Direct NCERT.

45. Which of the following is not a product of redifferentiation?
- (1) Cork            (2) Phelloderm            (3) Secondary xylem            (4) Cork Cambium

Key: 4

Sol: Cork cambium – dedifferentiation.

\*\*\*\*



46. What is common to Silkworm, Filarial worm and Tapeworm?

- |                               |                       |
|-------------------------------|-----------------------|
| (1) Double ventral nerve cord | (2) Complete gut      |
| (3) Bilateral symmetry        | (4) Sexual dimorphism |

Key : 3

Solution : Silkworm, Filarial worm and Tapeworm are bilaterally symmetrical. Double ventral nerve cord is present in silkworm. Gut is absent in tapeworm. Tapeworm is bisexual.

47. All the given below features of birds are useful for them to fly except

- |                                       |  |
|---------------------------------------|--|
| (1) Air sacs connected to lungs       | (2) Pneumatisation of bones            |
| (3) Forelimbs are modified into wings | (4) Heart is completely four chambered |

Key : 4

Solution : Air sacs, pneumatic bones and wings are useful in flight, but not the four chambered heart.

48. From the below mentioned sexually transmitted diseases, identify the one which does not specially affect the sex organs

- |                |                   |
|----------------|-------------------|
| (1) Syphilis   | (2) AIDS          |
| (3) Gonorrhoea | (4) Genital warts |

Key : 2

Solution : AIDS – HIV target cells are  $T_H$ , Macrophages and dendritic cells. Syphilis, Gonorrhoea and Genital warts affect the sex organs.

49. Follow the features

- Fibres and fibroblasts are compactly packed
- It is mesodermal in origin
- Many fibres are oriented differently

Where do you find the connective tissue with the above features?

- |                       |              |
|-----------------------|--------------|
| (1) Skin              | (2) Tendons  |
| (3) Elastic ligaments | (4) Nephrons |

Key : 1

Solution : The given features are related to dense irregular tissue. This tissue is present in the skin (dermis)

**50. Statement-I : Induced abortions are considered relatively safe during the first trimester i.e., up to 12 weeks of pregnancy.**

**Statement-II : MTPs are always surgical.**

- (1) Both Statement I and Statement II are wrong
- (2) Both Statement I and Statement II are true
- (3) Statement I is correct, Statement II is wrong
- (4) Statement I is wrong, Statement II is correct

**Key : 3**

**Solution : Statement-I is correct (NCERT statement). Statement-II is wrong as abortions are also induced by certain drugs like RU-486 (mifepristone), which is an antiprogestin.**

**51. Members of which phylum of the following can live in all kinds of habitats?**

- (1) Echinodermata
- (2) Arthropoda
- (3) Porifera
- (4) Cnidaria

**Key : 2**

**Solution : Arthropods can live in all kinds of habitats.**

**52. Neurons with only one axon and without dendrites are usually found in**

- (1) Retina of eye
- (2) Embryonic stage
- (3) Cerebral cortex
- (4) Dorsal root ganglion

**Key : 2**

**Solution : Neurons with only one axon and without dendrites are unipolar, these are usually found in embryonic stage.**

**53. Choose the incorrect combination**

	<b>Organ</b>	<b>Hormone</b>	<b>Enzyme</b>
(1)	Kidney	Erythropoietin	Renin
(2)	Stomach	Gastrin	Pepsinogen
(3)	Pancreas	Insulin	Amylase
(4)	Liver	Cholecystokinin	Bilirubin

**Key : 4**

**Solution : Cholecystokinin is secreted by CCK cells of duodenum, bilirubin is present in bile but it is not an enzyme.**

**54. Seminal plasma does not include the secretions of**

- (1) Seminal vesicles
- (2) Bartholin's glands
- (3) Prostate gland
- (4) Bulbourethral glands

**Key : 2**

**Solution : Bartholin's glands and reproductive glands of female.**

**55. In the ovary of female human, degeneration of a large number of primary follicles occurs during which phase?**

- (1) From menarch to menopause (2) From birth to puberty  
(3) From foetal stage to birth (4) From menopause to death

**Key : 2**

**Solution : Degeneration of a large number of primary follicles occurs from birth to puberty. (NCERT sentence)**

**56. Which of the following hormonal combination is associated with normal lactation?**

- (1) Prolactin + Oxytocin (2) Estrogen + Progesterone  
(3) Somatomammotropin + Cortisol (4) Oxytocin + Relaxin

**Key : 1**

**Solution : Prolactin and oxytocin are associated with normal lactation. Prolactin regulates the growth of the mammary glands and production of milk, oxytocin stimulates milk ejection from the mammary glands.**

**57. In a vertebrate myelinated neuron, the number of voltage-gated  $\text{Na}^+$  and  $\text{K}^+$  channels per square micrometer is maximum at**

- (1) Axon terminal (2) Dendritic zone  
(3) Node of Ranvier (4) Cell body

**Key : 3**

**Solution : In a myelinated axon, the voltage-gated  $\text{Na}^+$  and  $\text{K}^+$  channels are concentrated at nodes of Ranvier.**

**58. For maturation and motility of sperms, the secretions of which of the following are essential ?**

- (1) Prostate gland only (2) Seminal vesicles only  
(3) Epididymis only (4) All the three

**Key : 4**

**Solution : Secretions of prostate gland, seminal vesicles and epididymis are essential for maturation and motility of sperms. (NCERT sentence)**

**59. ADA is an enzyme which is deficient in the genetic disorder called SCID. The site of production of ADA in the body is**

- (1) Lymphocytes (2) Erythrocytes  
(3) Platelets (4) Mast cells

**Key : 1**

**Solution :** ADA is produced by lymphocytes.

**60. Highly poisonous cardiac glycosides are produced by**

- |                        |                       |
|------------------------|-----------------------|
| (1) <i>Acasia</i>      | (2) <i>Casia</i>      |
| (3) <i>Arabadopsis</i> | (4) <i>Calotropis</i> |

**Key : 4**

**Solution :** Highly poisonous cardiac glycosides are produced by *Calotropis*.

**61. The interaction between sea anemone and clown fish that lives among stinging tentacles of sea anemone is an example of**

- |                  |               |
|------------------|---------------|
| (1) Commensalism | (2) Mutualism |
| (3) Parasitism   | (4) Predation |

**Key : 1**

**Solution :** The interaction between sea anemone and clown fish is an example of commensalism.

**62. When number of immigrations and births is more than emigrations and deaths, the growth curve of the population will show**

- |                     |                        |
|---------------------|------------------------|
| (1) Declining phase | (2) Acceleration phase |
| (3) Lag phase       | (4) Asymptote phase    |

**Key : 2**

**Solution :** When the number of immigrations and births is more than emigrations and deaths, it contribute to an increase in population density so the population will show acceleration phase.

**63. Among the following which is the best indicator of water pollution caused due to mixing of human faeces ?**

- |                        |                       |
|------------------------|-----------------------|
| (1) <i>Trypanosoma</i> | (2) <i>Bacillus</i>   |
| (3) <i>E. coli</i>     | (4) <i>Paramecium</i> |

**Key : 3**

**Solution :** *Escherichia coli* is an indicator of faecal pollution.

**64. One green house gas contributes 14% and another contributes 6% to total global warming. These gases respectively are**

- |  |                                     |
|--|-------------------------------------|
| (1) Methane and CO <sub>2</sub>          | (2) CFCs and N <sub>2</sub> O       |
| (3) N <sub>2</sub> O and CO <sub>2</sub> | (4) O <sub>3</sub> and water vapour |

**Key : 2**

**Solution :** CFCs contribute 14% and N<sub>2</sub>O contribute 6% to total global warming.

**65. High levels of species richness and high degree of endemism can be observed in**

- (1) Indo-Burma and Himalaya biodiversity hotspots
- (2) Keoladeo Ghana National park

- (3) Sacred grooves of Khasi and Jaintia Hills in Meghalaya
- (4) Nanda Devi Biosphere Reserve

**Key : 1**

**Solution : Biodiversity hot spots (Indo-Burma and Himalaya) are with high levels of species richness and high degree of endemism.**

**66. Consider the following statements on ecological pyramids and pick out the correct statements**

- A) Pyramid of energy can never be inverted, because when energy flows from a particular trophic level to the next trophic level, some energy is always lost as heat at each step.
- B) In all ecosystems, the pyramids of number and of biomass are upright.
- C) The pyramid of biomass of sea is generally inverted because the biomass of fishes far exceeds that of phytoplankton.

- (1) Only A
- (2) A and B only
- (3) A and C only
- (4) All A, B and C

**Key : 3**

**Solution : A and C are correct statements (NCERT sentences). The pyramids of number and biomass are inverted in some cases.**

**67. “The Evil Quartet” is the sobriquet used to describe**

- (1) Conservation of biodiversity
- (2) Causes of biodiversity losses
- (3) Causes of distribution of biodiversity
- (4) Patterns of regaining lost biodiversity

**Key : 2**

**Solution : “The Evil Quartet” is a sobriquet used to describe causes of biodiversity losses (NCERT sentence)**

**68. Which is edible from apiculture ?**

- (1) Bee wax
- (2) Propolis
- (3) Honey
- (4) All the three

**Key : 3**

**Solution : Honey is the edible product of apiculture.**

**69. As per Allen’s rule mammals residing in colder climates have**

- (1) Shorter ear lobes and shorter limbs
- (2) Longer ear lobes and longer limbs
- (3) Shorter ear lobes and longer limbs
- (4) Longer ear lobes and shorter limbs

**Key : 1**

**Solution : As per Allen’s rule mammals residing in colder climates have shorter ear lobes and limbs.**

**70. Identify the one related to fishery industry**

- (1) White revolution
- (2) Green revolution

(3) Industrial revolution

(4) Blue revolution

**Key : 4**

**Solution : Blue revolution is related to aquaculture (fishery industry)**

**71. Study the following and choose the *incorrect***

(1) Morphin and Heroin are opioids

(2) Marijuana and Hashish are cannabinoids

(3) Crack and Smack are coca alkaloids

(4) *Atropa* and *Datura* are plants with hallocinogenic properties

**Key : 3**

**Solution : Crack (Cocaine) is a coca alkaloid but smack (heroin, brown sugar) is an opioid (synthetic).**

**72. Milk containing human alpha-lactalbumin is naturally produced in**

(1) Transgenic cow

(2) Transgenic monkey

(3) Transgenic sheep

(4) Humans

**Key : 4**

**Solution : Human milk containing alpha – lactalbumin naturally.**

**73. Choose the option in which the disease, its mode of infection and symptom are correctly matched**

	Disease	Mode of Infection	Symptom
(1)	Diphtheria	Through contaminated food	Intestinal perforation
(2)	Pneumonia	Through blood transfusion	Alveoli get filled with fluid
(3)	Common cold	Through droplets from infected person	Sore throat
(4)	Amoebiasis	Bite of female mosquito	Mucus and blood in stool

**Key : 3**

**Solution : Mode of infection of common cold is through droplets from infected person and sore throat is one of the symptoms.**

**74. Method of sex determination in poultry birds is**

(1) ZO-ZZ type

(2) ZW-ZZ type

(3) XO-XX type

(4) XX-XY type

**Key : 2**

**Solution : In poultry birds the method of sex determination is ZW-ZZ type.**

**75. A haemophilic father passes the defective gene**

(1) to all his daughters

(2) either to his son or to his daughter

(3) to all his sons

(4) neither to his sons nor to his daughters

**Key : 1**

**Solution : Haemophilia is X-linked recessive disorder. Haemophilic father's X-chromosome always goes to his daughters only not to his sons.**

**76. Which enzyme of the following is not involving in the digestion of food stuffs ?**

(1) Enterokinase

(2) Lysozyme

(3) Aminopeptidase

(4) Nucleosidase

**Key : 2**

**Solution : Lysozyme is present in saliva and tears and it dissolves bacterial cell wall.**

**77. Peripheral chemoreceptors associated with aortic arch and carotid artery recognise changes in CO<sub>2</sub> and H<sup>+</sup> concentration and send necessary signals to**

(1) Pneumotaxic centre

(2) Respiratory rhythm centre

(3) Central chemoreceptors

(4) Apneustic centre

**Key : 2**

**Solution : The peripheral chemoreceptors recognise changes in CO<sub>2</sub> and H<sup>+</sup> concentration and send signals to respiratory rhythm centre.**

**78. Given below are four matchings of an animal and its kind of respiratory organs**

**A) Dolphin – Gills**

**B) Silver fish – Trachea**

**C) Lancelet – Lungs**

**D) King crab – Book gills**

**The correct matchings are**

(1) B and D

(2) A and C

(3) B, C and D

(4) A, B and C

**Key : 1**

**Solution : Silver fish – Trachea and King Crab (*Limulus*) – Book gills, Dolphin-lungs and lancelet – diffusion body wall.**

**79. Lymph collected from limbs never reaches the blood without passing through at least one lymph node. This is for**

(1) Filtration of micro organisms

(2) Absorption of glucose

(3) Absorption of fatty acids

(4) Separation of waste materials

**Key : 1**

**Solution : Lymph nodes trap and collect micro organisms from tissue fluid and lymph.**

**80. Which genetic disorder is not the resultant of aneuploidy ?**

(1) Edward's syndrome

(2) Myotonic dystrophy

(3) Turner's syndrome

(4) Klinefelter's syndrome



**Key :2**

**Solution : Myotonic dystrophy is autosomal dominant mendelian disorder and remaining are chromosomal disorders (aneuploidy)**

**81. Smooth muscles and elastic fibres are present in this layer of artery**

- |                    |                    |
|--------------------|--------------------|
| (1) Tunica externa | (2) Tunica interna |
| (3) Tunica media   | (4) Endothelium    |

**Key : 3**

**Solution : Tunica media (middle layer) of artery consists of smooth muscles and elastic fibres.**

**82. High threshold substances are**

- |  |                                       |
|--|---------------------------------------|
| (1) Glucose, creatinine and sodium         | (2) Urea, uric acid and amino acid    |
| (3) Creatinine, urocrome and hippuric acid | (4) Glucose, amino acids and vitamins |

**Key : 4**

**Solution : Glucose, amino acids and vitamins are high threshold substances.**

**83. In resting state, the thick filament heads of myosin molecules are directed towards**

- |                |                |
|----------------|----------------|
| (1) H-Zone     | (2) M-Line     |
| (3) Sarcolemma | (4) Z-membrane |

**Key : 4**

**Solution : The heads of myosin molecules are directed towards z-membranes.**

**84. Hormone that enhances cellular glucose uptake and utilization is secreted by**

- |   |  |
|---|--|
| (1) $\beta$ - cells of Islets of Langarhans | (2) $\alpha$ - cells of Islets of Langarhans |
| (3) $\delta$ - cells of páncreas            | (4) f - cells of páncreas                    |

**Key : 1**

**Solution : Insulin enhances cellular glucose uptake and utilisation, it is secreted by  $\beta$  -cells of Islets of Langerhans.**

**85. Joints present between carpals are**

- |                          |                    |
|--------------------------|--------------------|
| (1) Cartilaginous joints | (2) Gliding joints |
| (3) Fibrous joints       | (4) Saddle joints  |

**Key : 2**

**Solution : Gliding joints are present between carpals.**

**86. Human brain is covered by cranial meninges, the thin middle layer is called**

- |               |                     |
|---------------|---------------------|
| (1) Arachnoid | (2) Dura mater      |
| (3) Piamater  | (4) Menix primitiva |

**Key : 1**

**Solution : Arachnoid is thin, webby middle meninx.**

**87. Structure of opsin changes because of**

- (1) Association of retinal and opsin                      (2) Dissociation of retinal from opsin  
(3) Potential differences in photoreceptor cells   (4) All the three

**Key : 2**

**Solution : Light induces dissociation of retinal from opsin resulting in changes in the structure of the opsin.**

**88. Which of the following used hides to protect their body and buried their dead ?**

- (1) *Dryopithecus*    (2) *Homo habilis*  
(3) Neanderthal man                                        (4) *Homoerectus*

**Key : 3**

**Solution : Neanderthal man used hides to protect their body and burried their dead.**

**89. Flippers of penguins and dolphins are the example of**

- (1) Analogy    (2) Homology  
(3) Divergent evolution                                      (4) Stabilising selection

**Key : 1**

**Solution : Flippers of penguins and dolphins are the example of analogy (convergent evolution)**

**90. In HGP, the sequence of chromosome 1 was completed in**

- (1) April 2001    (2) March 2009  
(3) May 2006    (4) June 2003

**Key : 3**

**Solution : Sequencing of human chromosome 1 was completed in May, 2006**

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