

Which one of the following common sexually transmitted diseases is completely curable when 151. detected early and treated properly?

(1) Genital herpes

(2) Gonorrhoea (3) Hepatitis-B

(4) HIV Infection

Ans. (2)



- **152.** Which of the following statements are correct regarding female reproductive cycle?
 - A. In non-primate mammals cyclical changes during reproduction are called oestrus cycle.
 - B. First menstrual cycle begins at puberty and is called menopause.
 - C. Lack of menstruation may be indicative of pregnancy.
 - D. Cyclic menstruation extends between menarche and menopause.

Choose the **most appropriate** answer from the options given below:-

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

(4) Ans.



List I

- A. Vasectomy
- B. Coitus interruptus
- C. Cervical caps
- D. Saheli

Choose the **correct** answer from the options given below:-

- (1) A-III, B-I, C-IV, D-II
- (3) A-II, B-III, C-I, D-IV

Ans. (2)

List II

- I. Oral method
- II. Barrier method
- III. Surgical method
- IV. Natural method

(4) A-IV, B-II, C-I, D-III



154. Given below are two statements: one is labelled as **Assertion** A and the other is labelled as **Reason R**.

Assertion A: Amniocentesis for sex determination is one of the strategies of Reproductive and Child Health Care Programme.

Reason R: Ban ion amniocentesis checks increasing menace of female foeticide.

In the light of the above statements, choose the **correct** answer from the options given below:

- (1) Both A and R are true and R is the correct explanation of A.
- (2) Both A and R are true and R is NOT the correct explanation of A.
- (3) A is true but R is false.
- (4) A is false but R is true.

Ans. (4)



Which of the following are NOT considered as the part of endomembrane system? **155.**

A. Mitochondria

B. Endoplasmic Reticulum

C. Chloroplasts

D. Golgi complex

E. Peroxisomes

Choose the **most appropriate** answer from the options given below:

(1) A and D only (2) A, C and E only (3) A and D only (4) A, D and E only

(2) Ans.



156. Vital capacity of lung is____.

- (1) ERV + ERV
- (3) ERV + ERV + TV + RV
- **Ans.** (4)

- (2) IRV + ERV + TV + RV
- (4) IRV + ERV + TV



List I

- A. Gene 'a'
- B. Gene 'y'
- C. Gene 'I'
- D. Gene 'z'

Choose the **correct** answer from the options given below:

- (1) A-II, B-I, C-IV, D-III
- (3) A-III, B-IV, C-I, D-II

List II

- I. β -galactosidase
- II. Treansacetylase
- III. Permease
- IV. Repressor protein

(4) A-III, B-I, C-IV, D-II

Ans. (2)



List I List II

- A. CCK I. Kidney
- B. GIP II. Heart
- C. ANF III. Gastric gland
- D. ADH IV. Pancreas

Choose the **correct** answer from the options given below:

- (1) A-IV, B-III, C-II, D-I (2) A-III, B-II, C-IV, D-I
- (3) A-II, B-IV, C-I, D-III (4) A-IV, B-II, C-III, D-I

Ans. (1)



List I

(Interacting species)

- A. A Leopard and a Lion in a forest/grassland
- B. A Cuckoo laying egg in a Crow's nest
- C. Fungi and root of a higher plant in Mycorrtizae
- D. A cattle egret and a Cattle in a field IV. Commensalism
- Choose the **correct** answer from the options given below:
- (1) A-I, B-II, C-III, D-IV
- (3) A-III, B-IV, C-I, D-II

List II

(Name of interaction)

- I. Competition
- II. Brood parasitism
- III. Gastric gland
- (2) A-I, B-II, C-IV, D-III
- (4) A-II, B-III, C-I, D-IV

(1) Ans.



Statement I: Low temperature preserves the enzyme in a temporarily inactive state whereas high temperature destroyes enzymatic activity because proteins are denatured by heat.

Statement II: When the inhibitor closely resembles the substrate in its molecular structure and inhibits the activity of the enzyme, it is known as competitive inhibitor.

In the light of above statements, choose the **correct** answer from the options given below:

- (1) Both statement I and statement II are true.
- (2) Both **statement I** and **statement II** are false.
- (3) **Statement I** is true but **statement II** is false.
- (4) **Statement I** is false but **statement II** is true.

Ans. (1)



- **161.** Select the correct group/set of Australian Marsupials exhibiting adaptive radiation
 - (1) Tasmanian wolf, Bobcat, Marsupial mole
 - (2) Numbat, Spottted cuscus, Flying phalanger
 - (3) Mole, Flying squirrel, Tasmanian tiger cat
 - (4) Lemur, Anteater, Wolf
- **Ans.** (2)

	List I		List II
	(Cells)		(Secretion)
A.	Peptic cells	١.	Mucus
В.	Goblet cells	II.	Bile juice
C.	Oxyntic cells	III.	Proenzyme pepsinogen
D.	Hepatic cells	IV.	HCl and intrinsic factor
			for absorption of vitamin B_{12}

Choose the **correct** answer from the options given below:

- (1) A-IV, B-III, C-II, D-I
- (2) A-II, B-I, C-III, D-IV
- (3) A-III, B-I, C-IV, D-II
- (4) A-II, B-IV, C-I, D-III

Ans. (3)



- **163.** Which one of the following techiques does not serve the purpose of early diagnosis of a disease for its early treatment?
 - (1) Recombinant DNA Technology
 - (2) Serum and Urine analysis
 - (3) Polymerase Chain Reaction (PCR) technique
 - (4) Enzyme Linked Immuno-Sorbent Assay (ELISA) technique
- **Ans.** (2)



164. Match **List I** with **List II** with respect to human eye.

List I

List II

A. Fovea

 Visible coloured portion of eye that regulats diameter of pupil.

B. Iris

- II. External layer of eye formed of dense connective tissue.
- C. Blind spot
- III. Point of greatest visual acuity or resolution.

D. Sclera

IV. Point where optic nerve leaves the eyeball and photoreceptor cells are absent.

Choose the **correct** answer from the options given below:

- (1) A-III, B-I, C-IV, D-II
- (2) A-IV, B-III, C-II, D-I
- (3) A-I, B-IV, C-III, D-II
- (4) A-II, B-I, C-III, D-IV

Ans.

(1)



- **165.** Which of the following functions is carried out by cytoskeleton in a cell?
 - (1) Nuclear division
 - (2) Protein synthesis
 - (3) Motility
 - (4) Transportation
- **Ans.** (3)



- **166.** Broad plam with single palm crease is visible in a person suffering from -
 - (1) Down's syndrome
 - (2) Turner's syndrome
 - (3) Klinefelter's syndrome
 - (4) Thalassemia
- **Ans.** (1)



Statements I: In prokaryotes, the positively charged DNA is held with some negatively charged proteins in a region called nucleoid.

Statement II: In eukaryotes, the negatively charged DNA is wrapped around the positively charged histone octamer to form nucleosome.

In the light of the above statements, choose the **correct** answer from the options given below:

- (1) Both Statement I and Statement II are true.
- (2) Both Statement I and Statement II are false.
- (3) Statement I is correct but statement II is false.
- (4) Statement I incorrect but statement II is true.

Ans. (4)



List I

List II

A. Heroin

I. Effect on

cardiovascular system

- B. Marijuana
- II. Slow down body function

- C. Cocaine
- III. Painkiller
- D. Morphine
- IV. Interfere with transport of

dopamine

Choose the **correct** answer from the options given below:

- (1) A-II, B-I, C-IV D-III
- (2) A-I, B-II, C-III, D-IV
- (3) A-IV, B-III, C-II, D-I
- (4) A-III, B-IV, C-I, D-II

Ans. (1)



Statement I: Ligament are dense irregular tissue.

Statement II: Cartilage is dense regular tissue.

In the light of the above statements, choose the **correct** answer from the options given below:

- (1) Both Statement I and Statement II are true.
- (2) Both Statement I and Statement II are false.
- (3) Statement I is true but Statement II is false.
- (4) Statement I is false but Statement II is ture.

Ans. (2)



In which blood corpuscles, the HIV undergoes replication and produces progeny viruses? 170.

(1) T_H Cells (2) B-lymphocytes (3) Basophils

(4) Eosinophils

Ans. (1)



Statement I: Electrostatic precipitator is most widely used in thermal power plant.

Statement II: Electrostatic precipitator in thermal power plant removes ionising radiations In the light of the above statements, choose the most appropriate answer from the options given below:

- (1) Both Statement I and Statement II are correct.
- (2) Both Statement I and Statement II are incorrect.
- (3) Statement I is correct but Statement II is incorrect.
- (4) Statement I incorrect but Statement II is correct.

Ans. (3)



Statement I: Vas deferens receives a duct from seminal vesicle and opens into urethra as the ejaculatory duct:

Statement II: The cavity of the cervix is called cervical canal which along with vagina' forms birth canal.

In the light of the above statements, choose the correct answer from the options given below:

- (1) Both Statement I and Statement II are true.
- (2) Both Statement I and Statement II are false.
- (3) Statement I is correct but Statement II is false.
- (4) Statement I incorrect but Statement II is true.

Ans. (1)



List I

(Type of Joint)

- A. Cartilaginous Joint
- B. Ball and Socket Joint
- C. Fibrous Joint
- D. Saddle Joint

Choose the correct answer from the options given below:

- (1) A-III, B-I, C-II, D-IV
- (2) A-II, B-IV, C-I, D-III
- (3) A-I, B-IV, C-III, D-II
- (4) A-II, B-IV, C-III, D-I

Ans. (2)

List II

(Found between)

- I. Between flat skull bones
- II. Between adjacent vertebrae in vertebral column
- III. Between carpal and metacarpal of thumb
- IV. Between Humerus and Pectoral girdle



List I

- A. Ringworm
- B. Filariasis
- C. Malaria
- D. Pneumonia

Choose the **correct** answer from the options given below:

- (1) A-II, B-III, C-IV, D-I
- (3) A-III, B-II, C-I, D-IV
- **Ans.** (1)

List II

- I. Haemophilus influenzae
- II. Trichophyton
- III. Wuchereria bancrofti
- IV. Plasmodium vivax

(4) A-III, B-II, C-IV, D-I



175. Given below are statements: one is labelled as Assertion A and the other is labelled as Reason R.

Assertion A: Nephrons are of two types: Cortical & Juxta medullary, based on their relative position in cortex and medulla.

Reason R: Juxta medullary nephrons have short loop of Henle whereas, cortical nephrons have longer loop of Henle.

In the light of the above statements, choose the correct answer from the options given below:

- (1). Both A and R are true and R is the correct explanation of A.
- (2) Both A and R are true but R is NOT the correct explanation of A.
- (3) A is true but R is false.
- (4) A is false but R is true.

Ans. (3)



Statement I: A protein is imagined as a line, the left end represented by first amino acid (C -terminal) and the right end represented by last amino acid (N-terminal)

Statement II: Adult human haemoglobin, consists of 4 subunits (two subunits of α type and two subunits of β type.

In the light of the above statements, choose the correct answer from the options given below:

- (1) Both Statement I and Statement II are true.
- (2) Both Statement I and Statement II are false.
- (3) Statement I is true but Statement II is false.
- (4) Statement I is false but Statement II is true.

Ans. (4)



- **177.** Which of the following statements is correct?
 - (1) Eutrophication' refers to increase in domestic sewage and waste water in lakes.
 - (2) Biomagnification refers to increase in concentration of the toxicant at successive trophic levels.
 - (3) Presence of large amount of nutrients in water restricts 'Algal Bloom'
 - (4) Algal Bloom decreases fish mortality
- **Ans.** (2)



- **178.** Radial symmetry is NOT found in adults of phylum
 - (1) Ctenophora (2) Hemichordata (3) Coelenterata (4) Echinodermata
- **Ans.** (2)



Statement I: RNA mutates at a faster rate.

Statement II: Viruses having RNA genome and shorter life span mutate and evolve faster. In the light of the above statements, choose the correct answer from the options given beloy:

- (1) Both Statement I and Statement II are true.
- (2) Both Statement I and Statement II are false.
- (3) Statement I is true but Statement II is false.
- (4) Statement I false but Statement II is true.

Ans. (1)



180. Which one of the following symbols represents mating between relatives in human pedigree analysis?

(1)

(2)

(3)

4) 🔳 🌒 🔷

Ans. (2)



181. Given below are two statements: one is labelled as Assertion A and the other is labelled as Reason R. **Assertion A:** Endometrium is necessary for implantation of blastocyst.

Reason R: In the absence of fertilization, the corpus luteum degenerates that causes disintegration of endometrium.

In the light of the above statements, choose the correct answer from the options given below:

- (1) Both ${\bf A}$ and ${\bf R}$ are true and ${\bf R}$ is the correct explanation of ${\bf A}$.
- (2) Both $\bf A$ and $\bf R$ are true but $\bf R$ is NOT the correct explanation of $\bf A$.
- (3) A is true but R is false.
- (4) A is false but R is true.

Ans. (2)



Once the undigested and unabsorbed substances enter the caecum, their backflow is prevented by-182.

(1) Sphincter of Oddi

(2) Ileo - caecal valve

(3) Gastro - oesophageal sphincter (4) Pyloric sphincter

(2) Ans.



List I

- A. Taenia
- B. Paramoecium
- C. Periplaneta
- D. Pheretima

Choose the correct answer from the options give below:

- (1) A-I, B-II, C-III, D-IV
- (3) A-III, B-II, C-IV, D-I

Ans. (3)

List II

- I. Nephridia
- II. Contractile vacuole
- III. Flame cells
- IV. Urecose gland

(4) A-II, B-I, C-IV, D-III



184. Which of the following is not a cloning vector?

(1) BAC

(2) YAC

(3) pBR322

(4) Probe

Ans. (4)



List I

- A. P-wave
- B. Q-wave
- C. QRS complex
- D. T-wave

- (1) A-III, B-I, C-IV, D-II
- (3) A-II, B-IV, C-I, D-III

(1) Ans.

List II

- I. Beginning of systole
- II. Repolarisation of ventricles
- III. Depolarisation of atria
- IV. Depolarisation of ventricles

Choose the correct answer from the options given below: (2) A-IV, B-III, C-II, D-I

(4) A-I, B-II, C-III, D-IV



- 186. Which of the following are NOT under the control of thyroid hormone?
 - A. Maintenance of water and electrolyte balance
 - B. Regulation of basal metabolic rate
 - C. Normal rhythm of sleep-wake cycle
 - D. Development of immune system
 - E. Support the process of R.B.Cs formation Choose the correct answer from the options given below:
 - (1) A and D only
- (2) B and C only (3) C and D only (4) D and E only

Ans. (3)



- **187.** Which of the following statements are correct?
 - A. An excessive loss of body fluid from the body switches off osmoreceptors.
 - B. ADH facilitates water reabsorption to prevent diuresis.
 - C. ANF causes vasodilation.
 - D. ADH causes increase in blood pressure.
 - E. ADH is responsible for decrease in GFR.

Choose the correct answer from the options given below:

Choose the correct answer from the options given below: ·

(1) A and B only

(2) B, C and D only

(3) A, B and-E only

(4) C, D and E only

Ans. (2)

188. In cockroach, excretion is brought about by.

A. Phallic gland

B. Urecose gland

C. Nephrocytes

D. Fat body

E. Collaterial glands

Choose the correct answer from the options given below:

(1) A and E only (2) A, B and E only (3) B, C and D only (4) B and D only

(3) Ans.



- **189.** The parts of human brain that helps in regulation of sexual behaviour, expressian of excitement, pleasure, rage, fear etc are.
 - (1) Limbic system & hypothalamus
 - (3) Brain stem & epithalamus
- **Ans.** (1)

- (2) Corpora quadrigemina & hippocampus
- (4) Corpus callosum and thalamus



- 190. Which of the following statements are correct?
 - A. Basophils are most abundant cells of the total WBCs
 - B. Basophils secrete histamine, serotonin and heparin
 - C. Basophils are involved in inflammatory response
 - D. Basophils have kidney shaped nucleus
 - N. Basophils are agranulocytes

Choose the correct answer from the options given below:

(1) D and E only

(2) C and E only (3) B and C only

(4) A and B only

(3)Ans.



191. Which one of the following is sequence on corresponding coding strand, if the sequence on mRNA formed is as follows

5'AUCGAUCGAUCGAUCGAUCG AUCG 3'?

- (1) 5'UAGCUAGCUAGCUAGCUAGC UAGC 3'
- (2) 3'UAGCUAGCUAGCUAGCUAGCUAGC 5'
- (3) 5'ATCGATCGATCGATCGATCGATCG 3'
- (4) 3'ATCGATCGATCGATCGATCGATCG 5'

Ans. (3)



- 192. Which of the following statement are correct regarding skeletal muscle?
 - A. Muscle bundles are held together by collagenous connective tissue layer called fascicle.
 - B. Sarcoplasmic reticulum of muscle fibre is a store house of calcium ions.
 - C. Striated appearance of skeletal muscle fibre is due to distribution pattern of acting and myosin proteins.
 - D. M line is considered as functional unit of contraction called sarcomere.

Choose the **most appropriate** answer from the options given below:

(1) A, B and C only (2) B and C only (3) A, C and D only (4) C and D only

Ans. (2)



- **193.** The unique mammalian characteristics are:
 - (1) Hairs, tympanic membrane and mammary glands
 - (2) Hairs, pinna and mammary glands
 - (3) Hairs, pinna and indirect development
 - (4) Pinna, monocondylic skull and mammary glands

Ans. (2)



194. Match List I with List II.

List I

- A. Mast cells
- B. Inner surface of bronchiole
- C. Blood
- D. Tubular parts of nephrons
- Choose the **correct** answer from the options given below:
- (1) A-I, B-II, C-IV, D-III
- (3) A-II, B-I, C-IV, D-III
- **Ans.** (3)

List II

- I. Ciliated epithelium
- II. Areolar connective tissue
- III. Cuboidal epithelium
- IV. Specialised connective tissue
- (2) A-II, B-III, C-I, D-IV
- (4) A-III, B-IV, C-II, D-I



- **195.** Select the correct statements with reference to chordates.
 - A. Presence of a mid-dorsal, solid and double nerve cord.
 - B. Presence of closed circulatory system.
 - C. Presence of paired pharyngeal gillslits.
 - D. Presence of dorsal heart.
 - E. Triploblastic pseudocoelomate animals.

Choose the **correct** answer from the option given below:

(1) A, C and D only

(2) B and C only

(3) B, D and E only

(4) C, D and E only

Ans. (2)



- **196.** Which of the following is NOT an advantage of inbreeding?
 - (1) It decreases homozygosity.
 - (2) It exposes harmful recessive genes that are eliminated by selection.
 - (3) Elimination of less desirable genes and accumulation of superior genes takes place due to it.
 - (4) It decreases the productivity of inbred population, after continuous inbreeding.

Ans. (4)



197. Given below are two statements:

Statement I: During G₀ phase of cell cycle, the cell is metabolically inactive.

Statement II: The centrosome undergoes duplication during S phase of interphase.

In the light of the above statements, choose the **most appropriate** answer from the options given below:

- (1) Both Statement I and Statement II are correct.
- (2) Both Statement I and Statement II are incorrect.
- (3) **Statement I** is correct but **statement II** incorrect.
- (4) **Statement I** is incorrect but **statement II** correct.

Ans. (4)



198. Match List I with List II.

List I

- A. Logistic growth
- B. Exponential growth
- C. Expanding age pyramid
- D. Stable age pyramid

Choose the **correct** from the option given below:

- (1) A-II, B-I, C-III, D-IV
- (3) A-II, B-IV, C-I, D-III
- **Ans.** (1)

List II

- I. Unlimited resource availability condition
- II. Limited resource availability condition
- III. The percent individuals of pre-reproductive age is largest followed by reproductive and post reproductive age groups
- IV. The percent individuals of pre-reproductives and And reproductive age group are same
- (2) A-II, B-III, C-I, D-IV
- (4) A-II, B-IV, C-III, D-I



- 199. Select the correct statements.
 - A. Tetrad formation is seen during Leptotene.
 - B. During Anaphase, the centromeres split and chromatids separate.
 - C. Terminalization takes place during Pachytene.
 - D. Nucleolus, Golgi complex and ER are reformed during Telophase.
 - E. Crossing over takes place between sister chromatids of homologous chromosome.

Choose the **correct** answer from the option given below:

- (1) A and C only (2) B and D only (3) A, C and E only (4) B and E only

(2)Ans.



- **200.** Which of the following is characteristic feature of cockroach regarding sexual dimorphism?
 - (1) Dark brown body colour and anal cerci
 - (2) Presence of anal styles
 - (3) Presence of sclerites
 - (4) Presence of anal cerci
- **Ans.** (2)