

# NEET Biology Practice Questions with Answers and Clear Explanations

**Q1. Which of the following is a unicellular eukaryote?**

- A) Nostoc
- B) Amoeba
- C) Spirogyra
- D) Anabaena

☐ **Answer: B) Amoeba**

☐ **Explanation:** Amoeba has a true nucleus and membrane-bound organelles — characteristics of a eukaryote. Others are prokaryotic cyanobacteria or multicellular algae.

---

**Q2. Type of placentation in lemon is:**

- A) Marginal
- B) Free central
- C) Axile
- D) Parietal

☐ **Answer: C) Axile**

☐ **Explanation:** Ovules are attached to a central axis. Found in lemon and tomato.

---

**Q3. Which cells in cockroach help in excretion?**

- A) Flame cells
- B) Nephridia
- C) Malpighian tubules
- D) Green glands

☐ **Answer: C) Malpighian tubules**

☐ **Explanation:** Cockroach excretes uric acid via Malpighian tubules, which are thin tubular structures opening into the hindgut.

---

**Q4. What is the function of the loop of Henle's ascending limb?**

- A) Water absorption
- B) Water secretion
- C) Impermeable to water
- D) Urea secretion

☐ **Answer: C) Impermeable to water**

☐ **Explanation:** The ascending limb is impermeable to water but permeable to salts — aiding in urine concentration.

---

**Q5. Which of the following hormones regulates the circadian rhythm in humans?**

- A) Melatonin
- B) Insulin
- C) Thyroxine
- D) Cortisol

☐ **Answer: A) Melatonin**

☐ **Explanation:** Melatonin, secreted by the pineal gland, controls sleep-wake cycles and other biological rhythms.

---

**Q6. Ribozyme differs from other enzymes because it is made of:**

- A) Lipids
- B) Proteins
- C) RNA
- D) Carbohydrates

☐ **Answer: C) RNA**

☐ **Explanation:** Ribozyme is a catalytic RNA molecule capable of performing enzymatic activity — exception to the protein-enzyme rule.

---

**Q7. Gambusia is used in biological control to:**

- A) Kill weeds
- B) Consume mosquito larvae
- C) Destroy algae
- D) Infect pests

☐ **Answer: B) Consume mosquito larvae**

☐ **Explanation:** Gambusia (mosquito fish) is used in stagnant water bodies to eat mosquito larvae and control vector population.

---

**Q8. DNA segments cut by restriction enzymes have:**

- A) Random ends
- B) Sticky or blunt ends
- C) No ends
- D) Circular loops

☐ **Answer: B) Sticky or blunt ends**

☐ **Explanation:** Restriction enzymes cut DNA at specific palindromic sequences, creating sticky (overhanging) or blunt ends used in recombinant DNA technology.

---

**Q9. A feature not associated with connective tissue is:**

- A) Blood
- B) Cartilage
- C) Ligament
- D) Muscle

☐ **Answer: D) Muscle**

☐ **Explanation:** Muscle is not a connective tissue; it's classified as muscular tissue. Blood, cartilage, and ligaments are all types of connective tissues.

---

**Q10. What is the end product of glycolysis?**

- A) Pyruvate
- B) Acetyl-CoA
- C) CO<sub>2</sub>
- D) Glucose

☐ **Answer: A) Pyruvate**

☐ **Explanation:** Glycolysis breaks down glucose into 2 molecules of pyruvate in the cytoplasm, yielding 2 ATP and 2 NADH.

---

**Q11. In which of the following organisms is flame cell the excretory structure?**

- A) Earthworm
- B) Cockroach
- C) Hydra
- D) Planaria

☐ **Answer: D) Planaria**

☐ **Explanation:** Flame cells are found in flatworms like Planaria. They are involved in osmoregulation and excretion. Earthworms have nephridia, cockroach has Malpighian tubules.

---

**Q12. Which of the following is a living mechanical barrier in plant defense?**

- A) Cuticle
- B) Bark
- C) Trichomes
- D) Silica deposition

☐ **Answer: C) Trichomes**

☐ **Explanation:** Trichomes are hair-like outgrowths on the plant epidermis that mechanically prevent herbivore attack and pathogen entry.

---

**Q13. In humans, which chromosome has the highest number of genes?**

- A) X chromosome
- B) Chromosome 1
- C) Chromosome 21
- D) Y chromosome

☐ **Answer: B) Chromosome 1**

☐ **Explanation:** Chromosome 1 is the largest human chromosome and contains the highest number of genes (~2,000).

---

**Q14. Which of the following is an example of homologous organs?**

- A) Wings of birds and bats
- B) Flippers of penguin and fins of fish
- C) Forelimbs of frog and lizard
- D) Wings of insects and bats

☐ **Answer: C) Forelimbs of frog and lizard**

☐ **Explanation:** Homologous organs have the same anatomical structure but different functions — e.g., forelimbs in vertebrates.

---

**Q15. The plant hormone that promotes seed dormancy is:**

- A) ABA
- B) Auxin
- C) Cytokinin
- D) Gibberellin

☐ **Answer: A) ABA**

☐ **Explanation:** Abscissic Acid (ABA) induces seed dormancy, promotes stomatal closure, and inhibits growth.

---

**Q16. Which one of the following is a bacterium used as a biofertilizer in leguminous plants?**

- A) Azotobacter
- B) Anabaena
- C) Rhizobium
- D) Nostoc

☐ **Answer: C) Rhizobium**

☐ **Explanation:** *Rhizobium* forms symbiotic nitrogen-fixing nodules in roots of legumes (peas, beans, etc.).

---

**Q17. Which component of blood helps in clotting?**

- A) RBC
- B) WBC
- C) Platelets
- D) Plasma

☐ **Answer: C) Platelets**

☐ **Explanation:** Platelets (thrombocytes) release clotting factors like thromboplastin to initiate blood clotting cascade.

---

**Q18. Which part of the brain regulates body temperature?**

- A) Cerebrum
- B) Cerebellum
- C) Hypothalamus
- D) Medulla oblongata

☐ **Answer: C) Hypothalamus**

☐ **Explanation:** Hypothalamus is the body's thermostat. It also controls hunger, thirst, sleep, and pituitary hormones.

---

**Q19. Which of these is a sexually transmitted bacterial disease?**

- A) AIDS
- B) Gonorrhea
- C) Hepatitis B
- D) Genital herpes

☐ **Answer: B) Gonorrhea**

☐ **Explanation:** Gonorrhea is caused by *Neisseria gonorrhoeae* (bacteria). AIDS and Hepatitis B are viral; Herpes is also viral.

---

**Q20. Which stage of meiosis leads to reduction in chromosome number?**

- A) Anaphase I
- B) Telophase II
- C) Metaphase I
- D) Anaphase II

☐ **Answer: A) Anaphase I**

☐ **Explanation:** In Anaphase I, homologous chromosomes are pulled apart → chromosome number halves. That's why meiosis I is called reductional division.

---

**Q21. Which of the following is not a part of the female reproductive system?**

- A) Fallopian tube
- B) Urethra
- C) Uterus
- D) Ovary

☐ **Answer: B) Urethra**

☐ **Explanation:** Urethra is part of the **urinary system**, not reproductive. In females, it opens separately from the vaginal opening.

---

**Q22. The end product of aerobic respiration is:**

- A) Lactic acid
- B) Pyruvate
- C) CO<sub>2</sub> and H<sub>2</sub>O
- D) Ethanol

☐ **Answer: C) CO<sub>2</sub> and H<sub>2</sub>O**

☐ **Explanation:** In aerobic respiration, glucose is completely oxidized to carbon dioxide and water, producing 36–38 ATP.

---

**Q23. Which of the following helps in nodulation in legumes?**

- A) Azotobacter
- B) Anabaena
- C) Rhizobium
- D) Nostoc

☐ **Answer: C) Rhizobium**

☐ **Explanation:** *Rhizobium* forms symbiotic association with roots of legumes to form nodules and fix atmospheric nitrogen.

---

**Q24. Which part of the flower develops into a fruit?**

- A) Ovary
- B) Ovule
- C) Stigma
- D) Style

☐ **Answer: A) Ovary**

☐ **Explanation:** After fertilization, the ovary matures into a fruit, and the ovule becomes the seed.

---

**Q25. Which stage of mitosis shows the alignment of chromosomes on the equator?**

- A) Prophase
- B) Metaphase
- C) Anaphase
- D) Telophase

☐ **Answer: B) Metaphase**

☐ **Explanation:** In metaphase, chromosomes align at the cell's equator, attached to spindle fibers by centromeres.

---

**Q26. What is the main function of the large intestine?**

- A) Absorption of nutrients
- B) Digestion of proteins
- C) Absorption of water
- D) Secretion of enzymes

☐ **Answer: C) Absorption of water**

☐ **Explanation:** The large intestine mainly reabsorbs water and salts from the undigested food, forming solid feces.

---

**Q27. Which plant hormone causes leaf fall (abscission)?**

- A) Auxin
- B) Cytokinin
- C) ABA
- D) Gibberellin

☐ **Answer: C) ABA**

☐ **Explanation:** Absciscic acid (ABA) induces abscission (leaf fall), promotes dormancy, and is also known as a stress hormone.

---

**Q28. Which of the following structures is not a part of the nephron?**

- A) Loop of Henle
- B) Collecting duct
- C) Glomerulus
- D) Ureter

☐ **Answer: D) Ureter**

☐ **Explanation:** Ureter is a tube that carries urine from kidney to bladder. The others are all part of a nephron.

---

**Q29. Which cells in humans secrete insulin?**

- A) Alpha cells
- B) Delta cells
- C) Beta cells
- D) Acinar cells

☐ **Answer: C) Beta cells**

☐ **Explanation:** Beta cells in the islets of Langerhans (pancreas) secrete insulin, which regulates blood glucose.

---

**Q30. Which of the following is an example of passive immunity?**

- A) Vaccination
- B) Antibody injection
- C) Recovery after infection
- D) Herd immunity

☐ **Answer: B) Antibody injection**

☐ **Explanation:** Passive immunity involves direct transfer of ready-made antibodies, like anti-tetanus or antivenom injections.

---

**Q31. Which of the following is an example of a proteinaceous hormone?**

- A) Estrogen
- B) Insulin
- C) Cortisol
- D) Testosterone

☐ **Answer: B) Insulin**

☐ **Explanation:** Insulin is a peptide hormone (protein-based), secreted by  $\beta$ -cells of the pancreas. The others are steroid hormones.

---

**Q32. The function of histone proteins is to:**

- A) Replicate DNA
- B) Protect ribosomes
- C) Pack DNA in the nucleus
- D) Control translation

☐ **Answer: C) Pack DNA in the nucleus**

☐ **Explanation:** Histones are basic proteins that help in coiling and supercoiling of DNA to form nucleosomes and chromatin structure.

---

**Q33. Which of the following is the site of photosynthesis in higher plants?**



- A) Mitochondria
- B) Chloroplast
- C) Ribosome
- D) Golgi body

☐ **Answer: B) Chloroplast**

☐ **Explanation:** Chloroplasts contain chlorophyll and are the site of light-dependent and light-independent reactions of photosynthesis.

---

**Q34. Which of these is a vestigial organ in humans?**

- A) Pancreas
- B) Vermiform appendix
- C) Small intestine
- D) Spleen

☐ **Answer: B) Vermiform appendix**

☐ **Explanation:** The appendix is a vestigial structure — a remnant of the herbivorous ancestor's large cecum with no vital function today.

---

**Q35. Which is the primary organ for osmoregulation in humans?**

- A) Lungs
- B) Liver
- C) Kidney
- D) Skin

☐ **Answer: C) Kidney**

☐ **Explanation:** Kidneys regulate the water and electrolyte balance of the body, making them the key organ for osmoregulation.

---

**Q36. The term 'totipotency' refers to the ability of:**

- A) Gametes to fuse
- B) Tissues to grow
- C) Cells to differentiate
- D) A single cell to form a complete organism

☐ **Answer: D) A single cell to form a complete organism**

☐ **Explanation:** Totipotent cells (like zygote or some plant cells) can give rise to all cell types, including extra-embryonic tissues.

---

**Q37. Which disease is caused by a protozoan?**

- A) Tuberculosis
- B) Malaria
- C) AIDS
- D) Influenza

☐ **Answer: B) Malaria**

☐ **Explanation:** Malaria is caused by the protozoan *Plasmodium* and spread by the female *Anopheles* mosquito.

---

**Q38. Which among the following are called 'natural killers' in immunity?**

- A) B-cells
- B) T-helper cells
- C) Natural killer (NK) cells
- D) Plasma cells

☐ **Answer: C) Natural killer (NK) cells**

☐ **Explanation:** NK cells are a part of innate immunity and destroy virus-infected and cancerous cells without prior sensitization.

---

**Q39. Which of these increases surface area for absorption in the small intestine?**

- A) Rugae
- B) Microvilli
- C) Villi
- D) Both B and C

☐ **Answer: D) Both B and C**

☐ **Explanation:** Villi and microvilli are finger-like projections in the small intestine that increase the surface area for nutrient absorption.

---

**Q40. Which part of the brain controls balance and posture?**

- A) Medulla oblongata
- B) Cerebrum
- C) Hypothalamus
- D) Cerebellum

☐ **Answer: D) Cerebellum**

☐ **Explanation:** The cerebellum is responsible for coordination, balance, and posture by integrating sensory and motor pathways.

---

**Q41. Which among the following has a double circulatory system?**

- A) Fish
- B) Amphibians

- C) Reptiles
- D) Mammals

☐ **Answer: D) Mammals**

☐ **Explanation:** Mammals have complete double circulation — separate pulmonary and systemic circuits, ensuring oxygen-rich and oxygen-poor blood don't mix.

---

**Q42. Which layer of the ovule develops into the seed coat?**

- A) Micropyle
- B) Integument
- C) Chalaza
- D) Nucellus

☐ **Answer: B) Integument**

☐ **Explanation:** The integuments of the ovule form the protective covering of the seed — the seed coat.

---

**Q43. Which of the following is a symbiotic nitrogen-fixing cyanobacterium?**

- A) Rhizobium
- B) Azotobacter
- C) Anabaena
- D) Clostridium

☐ **Answer: C) Anabaena**

☐ **Explanation:** *Anabaena* forms symbiotic relationships (e.g., in *Azolla*) and fixes atmospheric nitrogen using heterocysts.

---

**Q44. The enzyme responsible for unwinding DNA during replication is:**

- A) Ligase
- B) DNA polymerase
- C) Helicase
- D) Topoisomerase

☐ **Answer: C) Helicase**

☐ **Explanation:** Helicase breaks hydrogen bonds between DNA strands, unwinding the double helix during replication.

---

**Q45. What does a high BOD (Biochemical Oxygen Demand) indicate in a water body?**

- A) Less pollution
- B) High oxygen content

C) High microbial activity

D) Less microbial activity

☐ **Answer: C) High microbial activity**

☐ **Explanation:** High BOD indicates more organic matter and microbial respiration — a sign of polluted water.

---

**Q46. Which of the following is an abiotic component of an ecosystem?**

A) Algae

B) Fungi

C) Light

D) Bacteria

☐ **Answer: C) Light**

☐ **Explanation:** Abiotic components are non-living — light, temperature, water, etc. The rest are biotic.

---

**Q47. Which hormone is produced by placenta during pregnancy?**

A) FSH

B) LH

C) hCG

D) Prolactin

☐ **Answer: C) hCG**

☐ **Explanation:** Human Chorionic Gonadotropin (hCG) is secreted by placenta to maintain corpus luteum and progesterone production in early pregnancy.

---

**Q48. Which of the following leads to speciation?**

A) Gene flow

B) Genetic drift

C) Mutation

D) Reproductive isolation

☐ **Answer: D) Reproductive isolation**

☐ **Explanation:** When populations are reproductively isolated, they evolve independently, leading to formation of new species.

---

**Q49. The chromosome number in the embryo sac of flowering plants is:**

A) Haploid

B) Diploid

C) Triploid

D) Tetraploid

☐ **Answer: A) Haploid**

☐ **Explanation:** The embryo sac (female gametophyte) is haploid and develops from a haploid megaspore via mitosis.

---

**Q50. What is the ploidy of the endosperm in angiosperms?**

A) Haploid

B) Diploid

C) Triploid

D) Tetraploid

☐ **Answer: C) Triploid**

☐ **Explanation:** In double fertilization, one male gamete fuses with two polar nuclei → forming a  $3n$  triploid endosperm.

---

**Q51. Which gas is released during photorespiration in plants?**

A) Oxygen

B) Carbon dioxide

C) Nitrogen

D) Hydrogen

☐ **Answer: B) Carbon dioxide**

☐ **Explanation:** Photorespiration occurs in  $C_3$  plants when RuBisCO binds to  $O_2$  instead of  $CO_2$ , leading to  $CO_2$  release in peroxisomes.

---

**Q52. Which immune cells mature in the thymus gland?**

A) B lymphocytes

B) T lymphocytes

C) Macrophages

D) Plasma cells

☐ **Answer: B) T lymphocytes**

☐ **Explanation:** T cells originate in bone marrow but **mature** in the **thymus**, and are essential for cell-mediated immunity.

---

**Q53. What prevents backflow of blood in veins?**

A) Thick muscular walls

B) Elastic walls

C) Valves

D) High pressure

☐ **Answer: C) Valves**

☐ **Explanation:** Valves in veins ensure unidirectional flow of blood toward the heart, especially from lower limbs.

---

**Q54. Which of the following arises from the endoderm?**

- A) Nervous system
- B) Epidermis
- C) Lining of digestive tract
- D) Muscles

☐ **Answer: C) Lining of digestive tract**

☐ **Explanation:** The endoderm forms internal linings of the alimentary canal, respiratory tract, and glands like liver and pancreas.

---

**Q55. What causes Down's syndrome?**

- A) Mutation in autosome
- B) Trisomy of chromosome 21
- C) Trisomy of chromosome 18
- D) Monosomy of X chromosome

☐ **Answer: B) Trisomy of chromosome 21**

☐ **Explanation:** Down's syndrome is a genetic disorder caused by the presence of **an extra chromosome 21** (47 chromosomes total).

---

**Q56. The function of contractile vacuole in Amoeba is:**

- A) Digestion
- B) Movement
- C) Excretion and osmoregulation
- D) Respiration

☐ **Answer: C) Excretion and osmoregulation**

☐ **Explanation:** Contractile vacuole helps freshwater protozoans like Amoeba to expel excess water and maintain osmotic balance.

---

**Q57. Which process is used for gene transfer using Agrobacterium?**

- A) Microinjection
- B) Electroporation
- C) Biolistics
- D) Vector-mediated transformation

☐ **Answer: D) Vector-mediated transformation**

☐ **Explanation:** *Agrobacterium tumefaciens* is a natural gene transfer vector used to transfer genes into dicot plants via Ti plasmid.

---

**Q58. Which part of the nephron is mainly responsible for selective reabsorption of glucose and amino acids?**

- A) Loop of Henle
- B) Collecting duct
- C) Distal convoluted tubule
- D) Proximal convoluted tubule

☐ **Answer: D) Proximal convoluted tubule**

☐ **Explanation:** PCT reabsorbs ~70% of filtrate — including glucose, amino acids, water, and ions — via active and passive mechanisms.

---

**Q59. Which process in plants involves the loss of water in liquid form?**

- A) Transpiration
- B) Guttation
- C) Evaporation
- D) Diffusion

☐ **Answer: B) Guttation**

☐ **Explanation:** Guttation is the exudation of water droplets from leaf margins due to root pressure, usually at night or early morning.

---

**Q60. Which of the following causes tuberculosis?**

- A) *Mycobacterium leprae*
- B) *Mycobacterium tuberculosis*
- C) *Salmonella typhi*
- D) *Streptococcus pneumoniae*

☐ **Answer: B) *Mycobacterium tuberculosis***

☐ **Explanation:** TB is caused by *M. tuberculosis*, primarily affects lungs, and spreads through airborne droplets.

---

**Q61. Which hormone is responsible for milk ejection (let-down reflex)?**

- A) Oxytocin
- B) Prolactin
- C) Estrogen
- D) Progesterone

☐ **Answer: A) Oxytocin**

☐ **Explanation:** Oxytocin is released from the posterior pituitary and causes contraction of smooth muscles in mammary glands, leading to milk ejection. Prolactin promotes milk production.

---

**Q62. Which of the following is a C4 plant?**

- A) Wheat
- B) Rice
- C) Sugarcane
- D) Mustard

☐ **Answer: C) Sugarcane**

☐ **Explanation:** Sugarcane is a C4 plant with Kranz anatomy. It performs photorespiration-free CO<sub>2</sub> fixation using PEP carboxylase.

---

**Q63. In gel electrophoresis, DNA fragments are separated based on:**

- A) Their sequence
- B) Their charge
- C) Their solubility
- D) Their size

☐ **Answer: D) Their size**

☐ **Explanation:** DNA fragments move through agarose gel under electric field — **smaller fragments move faster**, allowing separation by size.

---

**Q64. In a food chain, the flow of energy is:**

- A) Bidirectional
- B) Unidirectional
- C) Cyclic
- D) Random

☐ **Answer: B) Unidirectional**

☐ **Explanation:** Energy flows from producers → consumers → decomposers. It is not recycled like nutrients and is lost as heat at each trophic level.

---

**Q65. The function of progesterone is to:**

- A) Maintain pregnancy
- B) Stimulate ovulation
- C) Develop secondary sexual characters
- D) Regulate milk production



☐ **Answer: A) Maintain pregnancy**

☐ **Explanation:** Progesterone prepares the uterus for implantation and maintains the endometrium during pregnancy.

---

**Q66. Which one of the following is not a sexually transmitted disease (STD)?**

- A) Syphilis
- B) Gonorrhea
- C) Leprosy
- D) Genital warts

☐ **Answer: C) Leprosy**

☐ **Explanation:** Leprosy is caused by *Mycobacterium leprae* and is **not** sexually transmitted. Others are classic STDs.

---

**Q67. The product of the reaction catalyzed by RuBisCO during photosynthesis is:**

- A) 3-phosphoglycerate
- B) Glucose
- C) Glyceraldehyde-3-phosphate
- D) Pyruvate

☐ **Answer: A) 3-phosphoglycerate**

☐ **Explanation:** RuBisCO fixes CO<sub>2</sub> with RuBP, forming an unstable 6-carbon compound → splits into two molecules of 3-PGA.

---

**Q68. Which part of the embryo gives rise to the shoot system?**

- A) Radicle
- B) Hypocotyl
- C) Epicotyl
- D) Plumule

☐ **Answer: D) Plumule**

☐ **Explanation:** Plumule is the part of the embryo that develops into the shoot (stem and leaves). Radicle gives rise to the root.

---

**Q69. Which of the following helps to open stomata?**

- A) Influx of Ca<sup>2+</sup>
- B) Efflux of K<sup>+</sup>
- C) Influx of K<sup>+</sup>
- D) Decrease in turgor pressure

☐ **Answer: C) Influx of K<sup>+</sup>**

☐ **Explanation:** In light, guard cells take in K<sup>+</sup> ions → water enters → cells become turgid → stomata open.

---

**Q70. The primary role of DNA ligase in recombinant DNA technology is to:**

A) Cut DNA at specific sites

B) Separate DNA fragments

C) Join DNA fragments

D) Amplify DNA

☐ **Answer: C) Join DNA fragments**

☐ **Explanation:** DNA ligase joins Okazaki fragments in vivo and joins sticky/blunt ends in vitro during cloning.

---

**Q71. Which of the following is a vestigial organ in humans?**

A) Pancreas

B) Coccyx

C) Liver

D) Lungs

☐ **Answer: B) Coccyx**

☐ **Explanation:** The coccyx (tailbone) is a vestigial structure — the remnant of a tail present in ancestral vertebrates.

---

**Q72. In the menstrual cycle, ovulation occurs due to peak secretion of:**

A) FSH

B) Progesterone

C) Estrogen

D) LH

☐ **Answer: D) LH**

☐ **Explanation:** Mid-cycle surge in **Luteinizing Hormone (LH)** triggers ovulation on ~day 14 of the cycle.

---

**Q73. Which of the following contributes to the initiation of seed germination?**

A) Gibberellins

B) Ethylene

C) Cytokinins

D) ABA

☐ **Answer: A) Gibberellins**

☐ **Explanation:** Gibberellins break seed dormancy by stimulating synthesis of hydrolytic enzymes like  $\alpha$ -amylase during germination.

---

**Q74. The diploid number of chromosomes in a human zygote is:**

- A) 46
- B) 44
- C) 23
- D) 92

☐ **Answer: A) 46**

☐ **Explanation:** A zygote forms by fusion of haploid sperm (23) and haploid ovum (23) → total 46 chromosomes.

---

**Q75. Which part of the brain is responsible for maintaining posture and balance?**

- A) Cerebrum
- B) Medulla
- C) Cerebellum
- D) Hypothalamus

☐ **Answer: C) Cerebellum**

☐ **Explanation:** The cerebellum coordinates voluntary movements and maintains body posture and balance.

---

**Q76. What is the role of the tapetum in the anther?**

- A) Forms the pollen wall
- B) Nourishes developing pollen
- C) Produces ovules
- D) Supports the stigma

☐ **Answer: B) Nourishes developing pollen**

☐ **Explanation:** The tapetum is the innermost nutritive layer of the microsporangium that helps in development of pollen grains.

---

**Q77. In which group of animals is a four-chambered heart found?**

- A) Amphibians
- B) Reptiles (except crocodile)
- C) Fishes
- D) Birds

☐ **Answer: D) Birds**

☐ **Explanation:** Birds and mammals have a completely divided 4-chambered heart — ensures double circulation and no mixing of blood.

---

**Q78. What is the main function of lymph?**

- A) Transport of oxygen
- B) Transport of nutrients and immune cells
- C) Formation of RBCs
- D) Clotting of blood

☐ **Answer: B) Transport of nutrients and immune cells**

☐ **Explanation:** Lymph carries digested fats (from intestines), returns tissue fluid to blood, and helps in immune responses.

---

**Q79. Which of the following is correct about mutualism?**

- A) One species benefits, other is harmed
- B) Both species benefit
- C) One benefits, other is unaffected
- D) Both are harmed

☐ **Answer: B) Both species benefit**

☐ **Explanation:** Mutualism is a symbiotic relationship where both organisms gain — e.g., mycorrhiza, lichens, pollination by bees.

---

**Q80. Which of the following is an example of a parasitic plant?**

- A) *Viscum*
- B) *Opuntia*
- C) Mango
- D) Tulsi

☐ **Answer: A) *Viscum***

☐ **Explanation:** *Viscum* (mistletoe) is a **partial stem parasite** that absorbs water and minerals from host plants.

---

**Q81. Which is a major greenhouse gas emitted through agriculture?**

- A) CO<sub>2</sub>
- B) CH<sub>4</sub>
- C) O<sub>3</sub>
- D) CFC

☐ **Answer: B) CH<sub>4</sub> (Methane)**

☐ **Explanation:** Methane is emitted during **paddy cultivation** and by **ruminants** — it's a potent greenhouse gas.

---

**Q82. What triggers the menstrual flow in humans?**

- A) Increase in estrogen
- B) Drop in progesterone
- C) LH surge
- D) Increase in FSH

☐ **Answer: B) Drop in progesterone**

☐ **Explanation:** Menstruation occurs due to **sudden fall in progesterone and estrogen** levels, leading to endometrial shedding.

---

**Q83. Which ecosystem has the highest productivity?**

- A) Desert
- B) Ocean
- C) Tropical rainforest
- D) Grassland

☐ **Answer: C) Tropical rainforest**

☐ **Explanation:** Due to **year-round warmth, sunlight and rainfall**, tropical rainforests have highest primary productivity.

---

**Q84. Which of the following leads to adaptive radiation?**

- A) Habitat destruction
- B) Stabilizing selection
- C) Common ancestry with environmental isolation
- D) Genetic drift

☐ **Answer: C) Common ancestry with environmental isolation**

☐ **Explanation:** Adaptive radiation occurs when organisms from a common ancestor evolve to fill **different ecological niches** — e.g., Darwin's finches.

---

**Q85. Which nitrogenous base is not found in RNA?**

- A) Uracil
- B) Thymine
- C) Cytosine
- D) Adenine

☐ **Answer: B) Thymine**

☐ **Explanation:** In RNA, **uracil (U)** replaces thymine (T) and pairs with adenine.

---

**Q86. Which virus is linked to cervical cancer?**

- A) Hepatitis B
- B) Human Immunodeficiency Virus
- C) Human Papillomavirus
- D) Epstein–Barr Virus

☐ **Answer: C) Human Papillomavirus (HPV)**

☐ **Explanation:** High-risk HPV types (especially 16 & 18) are strongly associated with cervical cancer in women.

---

**Q87. Haemophilia is more common in males because it is:**

- A) Dominant
- B) Y-linked
- C) X-linked recessive
- D) Autosomal

☐ **Answer: C) X-linked recessive**

☐ **Explanation:** Males have only one X chromosome, so if it carries the defective gene, haemophilia is expressed.

---

**Q88. Which component of the blood helps in clotting?**

- A) RBC
- B) WBC
- C) Platelets
- D) Plasma proteins only

☐ **Answer: C) Platelets**

☐ **Explanation:** Platelets (thrombocytes) release clotting factors like thromboplastin that help in blood coagulation.

---

**Q89. Which hormone is known as the stress hormone?**

- A) Insulin
- B) Cortisol
- C) Glucagon
- D) Aldosterone

☐ **Answer: B) Cortisol**

☐ **Explanation:** Cortisol is secreted from the **adrenal cortex** during stress; increases glucose availability and suppresses immune response.

---

**Q90. Which among the following is a sexually transmitted viral infection?**

- A) Gonorrhea
- B) Syphilis
- C) Chlamydia
- D) Genital herpes

☐ **Answer: D) Genital herpes**

☐ **Explanation:** Genital herpes is caused by **Herpes Simplex Virus (HSV-2)** and is transmitted sexually.

---

[www.tapasyaacademia.com](http://www.tapasyaacademia.com)