

JCECE Biology Sample Paper – 7

Duration: 60 Minutes

Maximum Marks: 50

Instructions

- This paper contains **50** Multiple Choice Questions (Single Correct Answer), modelled on the Biology portion of JCECE entrance.
- Each correct answer carries **+ 1 mark**. There is **-0.25 mark** for each incorrect answer; unattempted questions get 0.
- Only **one** option is correct. Choose carefully.
- Syllabus level: **Class 11 and Class 12 NCERT Biology (Jharkhand JAC / CBSE aligned) – Botany and Zoology.**
- Use of mobile phones, calculators, or electronic gadgets is strictly prohibited.

Q1. The dinoflagellates and euglenoids are placed in Kingdom Protista. The phenomenon called ‘red tide’, caused by rapid multiplication (bloom) of certain marine organisms whose toxins kill fishes, is produced by the:

- (A) euglenoids such as *Euglena*
- (B) slime moulds
- (C) red dinoflagellates (e.g. *Gonyaulax*)
- (D) diatoms (chrysophytes)

Q2. In the nomenclature of plant taxonomic categories, the names of *families* are recognised by a standard suffix added to the stem of a type genus. This characteristic family-name ending is:

- (A) -ales
- (B) -ineae
- (C) -opsida
- (D) -aceae



- Q3.** Agar, a gel used as a culture medium and in food (jellies, ice-cream), is commercially obtained from certain marine red algae such as *Gelidium* and *Gracilaria*. Agar is therefore a product of:
- (A) red algae (Rhodophyceae)
 - (B) blue-green algae (cyanobacteria)
 - (C) green algae (Chlorophyceae)
 - (D) brown algae (Phaeophyceae)
- Q4.** In most molluscs (phylum Mollusca, e.g. *Pila*), the rasping, file-like feeding organ present in the buccal cavity and used to scrape food is the:
- (A) nematocyst
 - (B) radula
 - (C) choanocyte
 - (D) osculum
- Q5.** Collenchyma and sclerenchyma are both mechanical tissues. The key feature that distinguishes *collenchyma* from sclerenchyma is that collenchyma cells are:
- (A) dead at maturity with uniformly thick lignified walls
 - (B) dead, with very narrow lumen and no protoplasm
 - (C) dead fibres providing only mechanical support
 - (D) living, with cellulose walls thickened at the corners
- Q6.** Blood is classified as a special type of connective tissue. The feature that justifies this classification is that blood has:
- (A) cells (formed elements) suspended in a fluid intercellular matrix called plasma
 - (B) tightly packed cells with almost no intercellular matrix
 - (C) cells embedded in a hard, calcified solid matrix



(D) elongated contractile cells bound into bundles

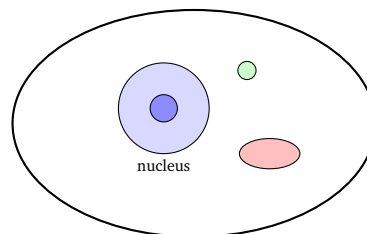
Q7. When the ovules are borne on a central axis in a multilocular (many-chambered) ovary, with the septa present, the type of placentation is:

- (A) parietal placentation
- (B) axile placentation
- (C) marginal placentation
- (D) free central placentation

Q8. The earthworm (*Pheretima*) is a hermaphrodite, yet it cannot fertilise itself. The thick glandular band of segments that secretes a mucous cocoon in which the fertilised eggs are deposited is the:

- (A) typhlosole
- (B) gizzard
- (C) clitellum
- (D) prostomium

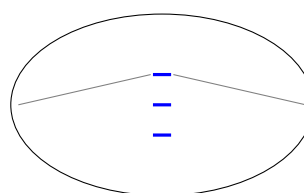
Q9. In the animal cell shown below, the large central organelle bounded by a double membrane houses a dense, non-membranous region that is the site of ribosomal RNA synthesis and ribosome assembly. This dense region is the:



- (A) the nucleolus
- (B) a nuclear pore
- (C) the nuclear envelope
- (D) a chromosome



- Q10.** When a plant cell is placed in a strongly hypertonic (highly concentrated) solution, water leaves the cell, the protoplast shrinks and pulls away from the cell wall. This phenomenon is called:
- (A) endosmosis
 - (B) plasmolysis
 - (C) imbibition
 - (D) turgidity
- Q11.** Compounds such as alkaloids, flavonoids, rubber and essential oils, which usually have no direct role in normal growth and development but often have ecological or commercial value, are classified as:
- (A) primary metabolites
 - (B) amino acids
 - (C) nucleotides
 - (D) secondary metabolites
- Q12.** The model of enzyme action which proposes that the substrate fits into the active site of the enzyme exactly as a key fits into a particular lock, on account of their complementary shapes, is the:
- (A) induced-fit model
 - (B) allosteric model
 - (C) lock-and-key model
 - (D) competitive-inhibition model
- Q13.** The figure shows chromosomes aligned at the equatorial plate during mitotic metaphase. Considering the whole mitotic division, the chief biological significance of mitosis is that it:



metaphase plate

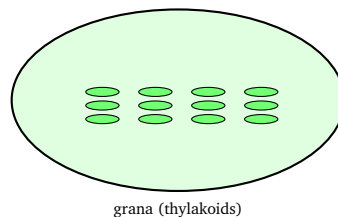


- (A) produces two daughter cells with the same chromosome number as the parent cell
- (B) halves the chromosome number to form gametes
- (C) increases genetic variation through crossing over
- (D) produces four haploid daughter cells

Q14. During prophase I of meiosis the homologous chromosomes pair lengthwise (synapsis). The resulting paired structure, made of two homologous chromosomes and hence four chromatids, is called a:

- (A) monad
- (B) bivalent (tetrad)
- (C) dyad
- (D) chiasma

Q15. The chloroplast shown contains stacked thylakoids (grana) bearing photosynthetic pigments. Among these pigments, the one that acts as the chief (primary) photosynthetic pigment, directly converting light energy in the reaction centre, is:



- (A) carotene (an accessory pigment)
- (B) xanthophyll (an accessory pigment)
- (C) phycoerythrin
- (D) chlorophyll *a*

Q16. In the absence of oxygen, yeast cells break down glucose incompletely, regenerating NAD^+ and releasing carbon dioxide. The two end products of this alcoholic fermentation in yeast are:



- (A) ethanol (ethyl alcohol) and carbon dioxide
- (B) pyruvate and oxygen
- (C) lactic acid and water
- (D) acetyl CoA and NADH

Q17. Active absorption of water by roots involves the expenditure of metabolic energy and is driven by the activity of the root cells themselves. The chief force responsible for this kind of absorption is the development of:

- (A) root pressure generated by active ion uptake into the xylem
- (B) transpiration pull created at the leaf surface
- (C) gravitational pull on the water column
- (D) capillary rise within the dead vessels

Q18. The technique of growing plants in a defined nutrient solution *without* soil, often used to identify the essentiality of mineral elements, is called:

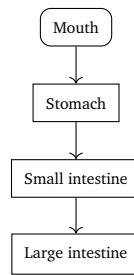
- (A) tissue culture
- (B) hydroponics (soil-less culture)
- (C) vermiculture
- (D) sericulture

Q19. In certain plants such as winter wheat, flowering is promoted only after the plant has been exposed to a period of low temperature (cold treatment). This low-temperature promotion of flowering is called:

- (A) photoperiodism
- (B) etiolation
- (C) phototropism
- (D) vernalization

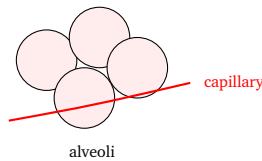
Q20. The flow diagram shows the human alimentary canal. The digestion of starch in food begins in the *mouth* itself, where salivary amylase (ptyalin) breaks down starch into:





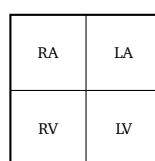
- (A) maltose (a disaccharide) and limit dextrans
- (B) amino acids
- (C) fatty acids and glycerol
- (D) nucleotides

Q21. Gas exchange occurs at the alveoli shown. In the tissue capillaries, carbon dioxide forms bicarbonate inside red blood cells; to maintain ionic balance as bicarbonate diffuses out into the plasma, chloride ions move *into* the red cells. This inward movement of chloride is known as the:



- (A) Bohr effect
- (B) Haldane effect
- (C) chloride shift (Hamburger's phenomenon)
- (D) sodium pump

Q22. The four-chambered human heart is shown. In humans the blood passes through the heart *twice* in one complete cycle, keeping oxygenated and deoxygenated blood completely separate. This pattern is called:

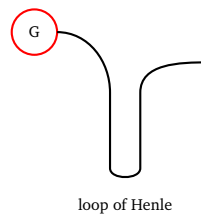


- (A) single circulation

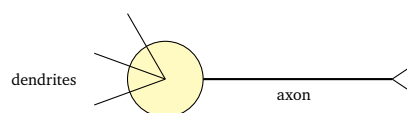


- (B) open circulation
- (C) incomplete double circulation
- (D) complete double circulation

Q23. The nephron shown filters the blood and forms urine. In human beings, the chief nitrogenous waste excreted by the kidney, formed in the liver from ammonia by the ornithine (urea) cycle, is:



- (A) uric acid (humans are uricotelic)
 - (B) urea (humans are ureotelic)
 - (C) ammonia (humans are ammonotelic)
 - (D) creatine only
- Q24.** Skeletal muscle fibres may be of two types. The 'red' muscle fibres, which are dark coloured, fatigue slowly and are suited to sustained activity, owe their red colour and aerobic stamina chiefly to a high content of:
- (A) glycogen and few mitochondria
 - (B) sarcoplasmic reticulum only
 - (C) myoglobin and numerous mitochondria
 - (D) stored creatine phosphate alone
- Q25.** In the neuron shown, the long single process carries the nerve impulse away from the cell body towards the next neuron. Along this axon, the nerve impulse normally travels in only one direction, that is:

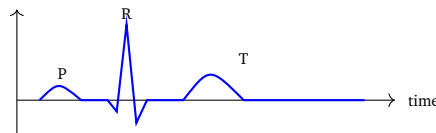


- (A) from the axon terminal back to the dendrites
- (B) simultaneously in both directions
- (C) only across the myelin sheath
- (D) from the dendrites and cell body towards the axon terminals

Q26. The hormone secreted by the mucosa of the duodenum that stimulates the pancreas to release bicarbonate-rich pancreatic juice and is released in response to acidic chyme entering the small intestine is:

- (A) secretin
- (B) insulin
- (C) thyroxine
- (D) glucagon

Q27. The ECG trace shown accompanies each heartbeat. If a person has a stroke volume of 70 mL and a heart rate of 72 beats per minute, the cardiac output (stroke volume \times heart rate) is approximately:



- (A) about 0.7 litres per minute
- (B) about 5.0 litres per minute
- (C) about 50 litres per minute
- (D) about 14 litres per minute

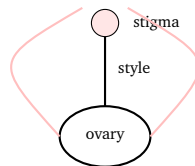
Q28. In a myelinated axon, the myelin sheath is interrupted at regular intervals by short unmyelinated gaps where the axon membrane is exposed. These gaps, at which the action potential is regenerated, are called the:

- (A) synaptic clefts
- (B) Schwann cells



- (C) nodes of Ranvier
- (D) Nissl bodies

Q29. The longitudinal section of a flower is shown. A mature angiosperm embryo sac (female gametophyte) within the ovule is typically described as:



- (A) 8-celled and 8-nucleate
 - (B) 7-celled and 8-nucleate
 - (C) 8-celled and 7-nucleate
 - (D) 6-celled and 6-nucleate
- Q30.** In some citrus and mango varieties, more than one embryo develops in a single seed, often from the nucellus or integument cells. This occurrence of more than one embryo in a seed is called:
- (A) double fertilization
 - (B) parthenocarpy
 - (C) polyembryony
 - (D) self-incompatibility
- Q31.** Within the seminiferous tubules of the testis, the large nourishing cells that provide nutrition to the developing germ cells (spermatids) are the:
- (A) Sertoli cells
 - (B) Leydig (interstitial) cells
 - (C) germ cells of the epididymis
 - (D) acrosomal cells



- Q32.** The average duration of human pregnancy (the gestation period), measured from fertilisation to normal childbirth, is about:
- (A) 14 days
 - (B) 120 days
 - (C) 180 days
 - (D) 280 days (about nine months)
- Q33.** A couple is said to be infertile when they are unable to produce children despite unprotected co-habitation. In assisting such couples, the technique in which an ovum collected from a donor or wife is fertilised by sperm *in the laboratory* and the early embryo is then transferred into the fallopian tube is:
- (A) GIFT (gamete intra-fallopian transfer)
 - (B) ZIFT (zygote intra-fallopian transfer)
 - (C) tubectomy
 - (D) amniocentesis
- Q34.** A Punnett square is a chequer-board device used by geneticists chiefly to:
- (A) predict all possible genotypes (and their ratios) of the offspring from a given cross
 - (B) measure the rate of mutation in a population
 - (C) determine the number of chromosomes in a cell
 - (D) map the position of genes on a chromosome
- Q35.** Human skin colour and human height show a continuous range of variation, because each is controlled by several genes whose effects add up. This pattern, in which a trait is governed by many genes each with a small additive effect, is called:
- (A) incomplete dominance



- (B) codominance
- (C) polygenic (quantitative) inheritance
- (D) pleiotropy

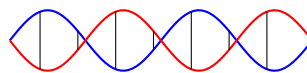
Q36. Two genes are located on the same chromosome. As the physical distance between two linked genes on a chromosome increases, the frequency of recombination (crossing over) between them generally:

- (A) decreases
- (B) increases
- (C) remains exactly zero
- (D) stays unchanged at 50%

Q37. A genetic disorder marked by a short stature, a small round head, a furrowed protruding tongue and intellectual disability, caused by an additional copy of chromosome 21 (trisomy-21), is:

- (A) Turner's syndrome
- (B) Klinefelter's syndrome
- (C) Down's syndrome
- (D) Haemophilia

Q38. DNA, shown as a double helix, is transcribed into RNA. The type of RNA that carries the genetic message (codons) from DNA to the ribosome, serving as the template for protein synthesis, is:



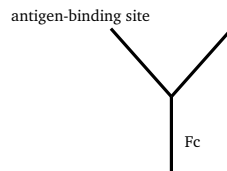
double helix

- (A) ribosomal RNA (rRNA)
- (B) transfer RNA (tRNA)
- (C) small nuclear RNA (snRNA)
- (D) messenger RNA (mRNA)



- Q39.** During translation, each amino acid is brought to the ribosome by a transfer RNA. The three-base sequence on the tRNA that recognises and base-pairs with a specific codon on the mRNA is called the:
- (A) anticodon
 - (B) promoter
 - (C) operator
 - (D) start codon
- Q40.** Darwin's finches of the Galapagos Islands evolved from a single ancestral seed-eating species into many forms with differently shaped beaks suited to different diets. This evolution of many divergent species from a common ancestor in a given geographical area is called:
- (A) convergent evolution
 - (B) adaptive radiation
 - (C) genetic drift
 - (D) industrial melanism
- Q41.** The common cold (a contagious infection of the nose and respiratory passage causing nasal congestion, sneezing and sore throat) is caused chiefly by:
- (A) the bacterium *Salmonella typhi*
 - (B) the protozoan *Entamoeba histolytica*
 - (C) rhino viruses
 - (D) the worm *Wuchereria*
- Q42.** The Y-shaped antibody is shown. In an allergic reaction (e.g. to pollen or dust), the mast cells release certain chemicals that produce the symptoms such as sneezing, watery eyes and inflammation. The chief chemical responsible for these allergic symptoms is:





- (A) insulin
- (B) fibrinogen
- (C) haemoglobin
- (D) histamine

Q43. In the brewing and industrial production of ethanol, the microorganism most widely used to ferment sugars (must) into alcohol is the yeast:

- (A) *Lactobacillus*
- (B) *Aspergillus niger*
- (C) *Saccharomyces cerevisiae*
- (D) *Clostridium*

Q44. Single-cell protein (SCP) is an alternative protein source obtained by mass-culturing microbes. Among the following, the organism used as a rich source of single-cell protein is the:

- (A) blue-green alga *Spirulina*
- (B) virus bacteriophage
- (C) *Plasmodium*
- (D) tapeworm *Taenia*

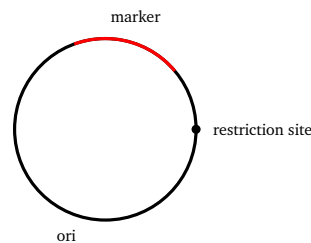
Q45. The restriction enzyme *EcoRI* is named in a definite convention. In the name *EcoRI*, the first letter 'E' is derived from:

- (A) the order of discovery of the enzyme
- (B) the genus name of the source bacterium (*Escherichia*)
- (C) the strain of the bacterium



(D) the recognition base sequence

Q46. The plasmid cloning vector is shown. The feature labelled 'marker' (such as a gene for ampicillin resistance) is included in the vector mainly to:

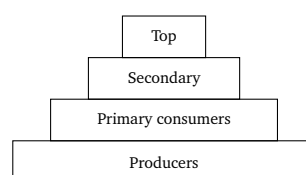


- (A) start replication of the plasmid
- (B) be cut by the restriction enzyme
- (C) allow selection (identification) of the transformed host cells
- (D) code for the foreign protein of interest

Q47. In India, the body that makes decisions regarding the validity of genetically modified (GM) research and the safety of introducing GM organisms for public services is the:

- (A) ICMR
- (B) NCERT
- (C) WHO
- (D) GEAC (Genetic Engineering Appraisal Committee)

Q48. The ecological pyramid shown depicts feeding levels. In a natural ecosystem, many food chains are interconnected because one organism is usually eaten by several kinds of predators and itself eats several kinds of food. This network of many interlinked food chains is called a:



- (A) food web
- (B) single food chain
- (C) ecological pyramid
- (D) trophic level

Q49. A population, unlike an individual organism, has certain attributes that an individual does not possess. Which of the following is such a *population* attribute?

- (A) the birth or death of one organism
- (B) birth rate, death rate and sex ratio
- (C) the body weight of one organism
- (D) the age of a single organism

Q50. The internationally recognised inventory that catalogues the global conservation status of species and classifies them into categories such as 'Endangered', 'Vulnerable' and 'Critically Endangered' is the:

- (A) sacred grove register
- (B) Ramsar list of wetlands
- (C) IUCN Red List (Red Data Book)
- (D) the Wildlife Census report



Detailed Solutions

Q1.

Solution

Concept — Dinoflagellates: Dinoflagellates are mostly marine, photosynthetic protists with two flagella. Some, such as the red-pigmented *Gonyaulax*, multiply explosively to form 'red tides' whose toxins can kill fish.

Step 1 — Identify the bloom-forming group: the red-coloured dinoflagellates cause red tides.

Step 2 — Link to the toxin: their released toxins poison and kill the fishes.

Why other options are wrong:

- (A) euglenoids are flexible freshwater protists; they do not cause red tides.
- (B) slime moulds are saprophytic protists of decaying matter.
- (D) diatoms are the chrysophytes whose walls form diatomaceous earth, not red tides.

Final Answer: red dinoflagellates (*Gonyaulax*) ⇒

Answer: (C) [Go Back to Q1](#)

Q2.

Solution

Concept — Family-name suffix: In plant taxonomy the rank suffixes are standardised; the names of families end in *-aceae* (e.g. Solanaceae, Liliaceae), formed from the stem of a type genus.

Step 1 — Recall the standard endings: order = *-ales*, family = *-aceae*.

Step 2 — Select the family ending: *-aceae*.

Why other options are wrong:

- (A) *-ales* is the ending for an order.
- (B) *-ineae* denotes a sub-order.
- (C) *-opsida* is the ending for a class.

Final Answer: *-aceae* ⇒

Answer: (D) [Go Back to Q2](#)



Q3.

Solution

Concept — Economic products of algae: Red algae (Rhodophyceae) such as *Gelidium* and *Gracilaria* yield agar; brown algae yield algin; and *Chlorella* (green) is a protein supplement.

Step 1 — Match the product to the group: agar comes from red algae.

Step 2 — Confirm the genera: *Gelidium* and *Gracilaria* are red algae.

Why other options are wrong:

- (B) cyanobacteria (e.g. *Spirulina*) give food supplements, not agar.
- (C) green algae such as *Chlorella* give protein supplements.
- (D) brown algae yield algin, not agar.

Final Answer: red algae (Rhodophyceae) ⇒

Answer: (A) [Go Back to Q3](#)

Q4.

Solution

Concept — Mollusca: Most molluscs possess a rasping feeding organ called the radula, a chitinous ribbon bearing rows of fine teeth, lying in the buccal cavity and used to scrape food.

Step 1 — Recall the feeding organ: the radula scrapes food.

Step 2 — Confirm its location: it lies in the buccal cavity of molluscs such as *Pila*.

Why other options are wrong:

- (A) nematocysts are the stinging cells of Coelenterata.
- (C) choanocytes are the collar cells of sponges.
- (D) the osculum is the exhalant pore of a sponge.

Final Answer: radula ⇒

Answer: (B) [Go Back to Q4](#)



Q5.

Solution

Concept — Collenchyma vs sclerenchyma: Collenchyma is a living mechanical tissue with cellulose (and pectin) walls thickened at the corners; sclerenchyma is dead, with uniformly thick, lignified walls and narrow lumen.

Step 1 — Note collenchyma traits: living cells, corner (angular) cellulose thickening.

Step 2 — Contrast with sclerenchyma: dead, lignified, uniform thickening.

Why other options are wrong:

- (A), (B) and (C) all describe sclerenchyma (dead, lignified, narrow lumen, fibres), not collenchyma.

Final Answer: living, with cellulose walls thickened at the corners ⇒

Answer: (D) [Go Back to Q5](#)

Q6.

Solution

Concept — Blood as connective tissue: A connective tissue has cells dispersed in an abundant intercellular matrix. In blood the formed elements (RBCs, WBCs, platelets) are suspended in a fluid matrix, the plasma; hence blood is a fluid connective tissue.

Step 1 — State the diagnostic feature: cells in a fluid matrix (plasma).

Step 2 — Conclude: this matches the defining property of connective tissue.

Why other options are wrong:

- (B) closely packed cells with little matrix describes epithelium.
- (C) a hard calcified matrix describes bone, not blood.
- (D) elongated contractile cells describe muscle tissue.

Final Answer: cells suspended in a fluid plasma matrix ⇒

Answer: (A) [Go Back to Q6](#)



Q7.

Solution

Concept — Placentation: The arrangement of ovules within the ovary is placentation. In axile placentation the ovary is multilocular, the septa are present, and the ovules are borne on the central axis (e.g. China rose, tomato, lemon).

Step 1 — Read the clues: multilocular ovary, septa present, ovules on a central axis.

Step 2 — Match the type: this is axile placentation.

Why other options are wrong:

- (A) parietal: ovules on the inner ovary wall, ovary one-chambered.
- (C) marginal: ovules along the ventral suture of a single carpel.
- (D) free central: ovules on a central axis but septa absent.

Final Answer: axile placentation ⇒

[Go Back to Q7](#)

Q8.

Solution

Concept — Earthworm reproduction: *Pheretima* is hermaphrodite but cross-fertilising. The clitellum, a prominent glandular girdle over segments 14–16, secretes the mucous cocoon in which the fertilised eggs are laid and develop.

Step 1 — Identify the glandular band: the clitellum.

Step 2 — State its role: it forms the cocoon for the fertilised eggs.

Why other options are wrong:

- (A) the typhlosole increases intestinal absorptive area.
- (B) the gizzard grinds food.
- (D) the prostomium is the lobe overhanging the mouth, used in burrowing.

Final Answer: clitellum ⇒

[Go Back to Q8](#)



Q9.

Solution

Concept — Nucleolus: The nucleus contains one or more dense, rounded, non-membrane-bound bodies called nucleoli. The nucleolus is the site of ribosomal RNA (rRNA) synthesis and of ribosome subunit assembly.

Step 1 — Identify the dense region: within the nucleus, the dense body is the nucleolus.

Step 2 — State its function: rRNA synthesis and ribosome assembly.

Why other options are wrong:

- (B) a nuclear pore is a channel through the nuclear envelope.
- (C) the nuclear envelope is the double membrane bounding the nucleus.
- (D) a chromosome is the thread of DNA/protein, not the rRNA-making body.

Final Answer: the nucleolus \Rightarrow

Answer: (A) [Go Back to Q9](#)

Q10.

Solution

Concept — Plasmolysis: In a hypertonic solution water moves out of the cell by exosmosis; the protoplast shrinks and pulls away from the cell wall. This shrinkage of the protoplast is called plasmolysis.

Step 1 — Read the clues: hypertonic solution, water leaves, protoplast shrinks.

Step 2 — Name it: plasmolysis.

Why other options are wrong:

- (A) endosmosis is the inward movement of water (hypotonic medium).
- (C) imbibition is absorption of water by hydrophilic colloids.
- (D) turgidity is the swollen, firm state of a fully hydrated cell.

Final Answer: plasmolysis \Rightarrow

Answer: (B) [Go Back to Q10](#)



Q11.

Solution

Concept — Secondary metabolites: Primary metabolites (sugars, amino acids, nucleotides) take part in normal growth; secondary metabolites (alkaloids, flavonoids, rubber, essential oils, toxins) have no direct role in growth but serve ecological or commercial functions.

Step 1 — Classify the listed compounds: alkaloids, flavonoids, rubber and essential oils are secondary metabolites.

Step 2 — Conclude: they are secondary metabolites.

Why other options are wrong:

- (A) primary metabolites are directly involved in growth and metabolism.
- (B) amino acids and (C) nucleotides are primary metabolites.

Final Answer: secondary metabolites \Rightarrow

[Go Back to Q11](#)

Q12.

Solution

Concept — Lock-and-key model: Fischer's lock-and-key model holds that the active site of an enzyme has a rigid, definite shape into which only a substrate of complementary shape fits, just as a particular key fits a particular lock.

Step 1 — Read the analogy: substrate fits the active site like a key in a lock.

Step 2 — Name the model: the lock-and-key model.

Why other options are wrong:

- (A) the induced-fit model says the active site moulds itself around the substrate.
- (B) the allosteric model concerns regulation at a separate site.
- (D) competitive inhibition is a type of inhibition, not a model of binding shape.

Final Answer: lock-and-key model \Rightarrow

[Go Back to Q12](#)



Q13.

Solution

Concept — Significance of mitosis: Mitosis is an equational division producing two daughter cells, each with the same chromosome number and identical genetic make-up as the parent cell. It enables growth, repair and replacement of cells.

Step 1 — Recall the outcome: two diploid daughter cells, chromosome number conserved.

Step 2 — State the significance: maintains constancy of chromosome number across cell generations.

Why other options are wrong:

- (B) halving the chromosome number for gametes is meiosis.
- (C) crossing over and variation occur in meiosis, not mitosis.
- (D) four haploid cells are produced by meiosis, not mitosis.

Final Answer: two daughter cells with the same chromosome number \Rightarrow **A**

Answer: (A) [Go Back to Q13](#)

Q14.

Solution

Concept — Bivalent (tetrad): During zygotene of prophase I, homologous chromosomes pair (synapsis) to form a bivalent. Since each homologue has two sister chromatids, a bivalent contains four chromatids and is also called a tetrad.

Step 1 — Read the description: two paired homologues, hence four chromatids.

Step 2 — Name it: a bivalent (tetrad).

Why other options are wrong:

- (A) a monad and (C) a dyad refer to single chromosomes/chromatid groups, not the paired homologues.
- (D) a chiasma is the point of crossing over within a bivalent, not the bivalent itself.

Final Answer: bivalent (tetrad) \Rightarrow **B**

Answer: (B) [Go Back to Q14](#)



Q15.

Solution

Concept — Photosynthetic pigments: Chlorophyll *a* is the chief (primary) pigment that traps light at the reaction centre and drives the photochemical reactions. Chlorophyll *b*, carotenes and xanthophylls are accessory pigments that pass energy to chlorophyll *a*.

Step 1 — Identify the primary pigment: chlorophyll *a*.

Step 2 — Note the role of others: accessory pigments only harvest and hand over light energy.

Why other options are wrong:

- (A) carotene and (B) xanthophyll are accessory pigments.
- (C) phycoerythrin is an accessory pigment of red algae.

Final Answer: chlorophyll *a* ⇒

Answer: (D) [Go Back to Q15](#)

Q16.

Solution

Concept — Alcoholic fermentation: In yeast, under anaerobic conditions, pyruvate from glycolysis is converted (via acetaldehyde) into ethanol, releasing carbon dioxide and regenerating NAD^+ . The end products are ethanol and CO_2 .

Step 1 — Recall the pathway in yeast: pyruvate \rightarrow acetaldehyde \rightarrow ethanol + CO_2 .

Step 2 — Name the products: ethanol and carbon dioxide.

Why other options are wrong:

- (B) no free oxygen is produced; the process is anaerobic.
- (C) lactic acid (not ethanol) forms in muscle/*Lactobacillus* fermentation.
- (D) acetyl CoA and NADH are intermediates of aerobic respiration, not fermentation end products.

Final Answer: ethanol and carbon dioxide ⇒

Answer: (A) [Go Back to Q16](#)



Q17.

Solution

Concept — Active absorption: In active absorption the root cells use metabolic energy (ATP) to pump ions into the xylem; this lowers the water potential there and draws in water, generating root pressure. It is most evident when transpiration is low.

Step 1 — Note the energy requirement: active uptake of ions consumes ATP.

Step 2 — Identify the force: root pressure built up by active ion accumulation in the xylem.

Why other options are wrong:

- (B) transpiration pull drives *passive* absorption, not active.
- (C) gravity opposes upward movement; it is not the absorbing force.
- (D) capillarity is a minor physical force, not active absorption.

Final Answer: root pressure from active ion uptake \Rightarrow

[Go Back to Q17](#)

Q18.

Solution

Concept — Hydroponics: Hydroponics is the science of growing plants in a defined, aerated nutrient solution without soil. By omitting an element from the solution, its essentiality and deficiency symptoms can be studied.

Step 1 — Read the clues: soil-less growth in a nutrient solution.

Step 2 — Name it: hydroponics.

Why other options are wrong:

- (A) tissue culture grows cells/tissues on a medium, not whole plants in solution for nutrient study.
- (C) vermiculture is the rearing of earthworms.
- (D) sericulture is the rearing of silkworms.

Final Answer: hydroponics \Rightarrow

[Go Back to Q18](#)



Q19.

Solution

Concept — Vernalization: Vernalization is the promotion of flowering by a period of low-temperature (cold) treatment. It ensures that plants such as winter wheat flower only after winter has passed.

Step 1 — Read the clue: cold treatment promotes flowering.

Step 2 — Name it: vernalization.

Why other options are wrong:

- (A) photoperiodism is the response to the length of light/dark periods.
- (B) etiolation is abnormal growth in darkness.
- (C) phototropism is bending of a plant towards light.

Final Answer: vernalization ⇒

Answer: (D) [Go Back to Q19](#)

Q20.

Solution

Concept — Carbohydrate digestion: Digestion of starch begins in the mouth. Salivary amylase (ptyalin) hydrolyses starch and glycogen into the disaccharide maltose, along with isomaltose and small limit dextrins.

Step 1 — Identify the enzyme and substrate: salivary amylase acts on starch.

Step 2 — Name the product: maltose (plus limit dextrins).

Why other options are wrong:

- (B) amino acids are products of protein digestion.
- (C) fatty acids and glycerol come from fat digestion.
- (D) nucleotides come from nucleic-acid digestion.

Final Answer: maltose and limit dextrins ⇒

Answer: (A) [Go Back to Q20](#)



Q21.

Solution

Concept — Chloride shift: As CO_2 enters red cells in the tissues and is converted to bicarbonate (HCO_3^-), the bicarbonate diffuses out into plasma; to keep ionic and electrical balance, chloride ions (Cl^-) move into the red cells. This is the chloride shift (Hamburger's phenomenon).

Step 1 — Track the ions: HCO_3^- out, Cl^- in.

Step 2 — Name the exchange: chloride shift.

Why other options are wrong:

- (A) the Bohr effect is the lowering of haemoglobin's O_2 affinity by CO_2/H^+ .
- (B) the Haldane effect concerns O_2 influencing CO_2 carriage.
- (D) the sodium pump moves Na^+/K^+ , not chloride for CO_2 transport.

Final Answer: chloride shift \Rightarrow

Answer: (C) [Go Back to Q21](#)

Q22.

Solution

Concept — Double circulation: In humans the blood passes through the heart twice per cycle — once via the pulmonary circuit (to the lungs) and once via the systemic circuit (to the body). Because the four-chambered heart keeps oxygenated and deoxygenated blood fully separate, it is complete double circulation.

Step 1 — Count the passages: blood crosses the heart twice in one cycle.

Step 2 — Note the separation: no mixing of oxygenated and deoxygenated blood.

Why other options are wrong:

- (A) single circulation (one passage) occurs in fishes.
- (B) open circulation (blood in sinuses) occurs in insects.
- (C) incomplete double circulation, with some mixing, occurs in amphibians and most reptiles.

Final Answer: complete double circulation \Rightarrow

Answer: (D) [Go Back to Q22](#)



Q23.

Solution

Concept — Nitrogenous waste in humans: Humans are ureotelic. Ammonia produced from amino-acid breakdown is converted in the liver, by the ornithine (urea) cycle, into the less toxic urea, which the kidneys excrete in urine.

Step 1 — Identify the chief waste: urea.

Step 2 — Note the excretory mode: humans are ureotelic.

Why other options are wrong:

- (A) uricotelism (uric acid) is seen in birds and reptiles.
- (C) ammonotelism (ammonia) is seen in bony fishes and aquatic invertebrates.
- (D) creatine is a minor waste, not the chief nitrogenous one.

Final Answer: urea (ureotelic) \Rightarrow

Answer: (B) [Go Back to Q23](#)

Q24.

Solution

Concept — Red vs white muscle: Red (slow) muscle fibres are rich in the oxygen-storing pigment myoglobin and contain many mitochondria, so they respire aerobically and resist fatigue. White (fast) fibres have little myoglobin and rely on anaerobic glycolysis.

Step 1 — Link colour and stamina to a cause: high myoglobin gives the red colour; many mitochondria support aerobic respiration.

Step 2 — Conclude: red fibres are rich in myoglobin and mitochondria.

Why other options are wrong:

- (A) abundant glycogen with few mitochondria describes white fibres.
- (B) sarcoplasmic reticulum alone does not give the red colour.
- (D) creatine phosphate is an energy store in all fibres; it is not the cause here.

Final Answer: myoglobin and numerous mitochondria \Rightarrow

Answer: (C) [Go Back to Q24](#)



Q25.

Solution

Concept — Direction of impulse conduction: A nerve impulse is normally received by the dendrites and cell body and conducted along the axon to its terminals, i.e. in one direction — dendrite → cell body → axon → synaptic knob. The synapse permits transmission in only one direction.

Step 1 — Recall the normal path: dendrites/cell body towards the axon terminals.

Step 2 — Note the one-way rule: the synapse enforces unidirectional flow.

Why other options are wrong:

- (A) terminal-to-dendrite flow is the reverse and does not normally occur.
- (B) conduction is not simultaneous in both directions across a synapse.
- (C) impulses travel along the axon membrane, not 'across' the insulating myelin sheath.

Final Answer: from dendrites/cell body towards the axon terminals ⇒

Answer: (D) [Go Back to Q25](#)

Q26.

Solution

Concept — GIT hormones: The duodenal mucosa secretes secretin in response to acidic chyme; secretin stimulates the pancreas to release a watery, bicarbonate-rich juice that neutralises the acid. (Cholecystokinin acts on enzyme secretion and bile release.)

Step 1 — Match the trigger: acidic chyme entering the duodenum.

Step 2 — Match the action: release of bicarbonate-rich pancreatic juice = secretin.

Why other options are wrong:

- (B) insulin lowers blood glucose; it is not a gut secretagogue here.
- (C) thyroxine regulates basal metabolic rate.
- (D) glucagon raises blood glucose.

Final Answer: secretin ⇒

Answer: (A) [Go Back to Q26](#)



Q27.

Solution

Concept — Cardiac output: Cardiac output is the volume of blood pumped by a ventricle in one minute. It equals stroke volume \times heart rate.

Step 1 — Write the formula: cardiac output = stroke volume \times heart rate.

Step 2 — Substitute the values: $70 \text{ mL} \times 72 = 5040 \text{ mL}$.

Step 3 — Convert to litres: $5040 \text{ mL} = 5.04 \text{ L} \approx 5.0 \text{ L}$ per minute.

Why other options are wrong:

- (A) 0.7 L is far too small (off by about ten times).
- (C) 50 L wrongly multiplies by an extra factor of ten.
- (D) 14 L does not follow from the given values.

Final Answer: about 5.0 litres per minute \Rightarrow **B**

Answer: (B) [Go Back to Q27](#)

Q28.

Solution

Concept — Nodes of Ranvier: Along a myelinated axon the myelin sheath, laid down by Schwann cells, is interrupted at regular gaps called nodes of Ranvier. The action potential is regenerated only at these nodes, giving rapid saltatory conduction.

Step 1 — Identify the gaps: the unmyelinated interruptions are the nodes of Ranvier.

Step 2 — Note their role: the impulse jumps node to node.

Why other options are wrong:

- (A) the synaptic cleft is the gap between two neurons, not along an axon.
- (B) Schwann cells form the myelin between the nodes.
- (D) Nissl bodies are granules in the neuron cell body.

Final Answer: nodes of Ranvier \Rightarrow **C**

Answer: (C) [Go Back to Q28](#)



Q29.

Solution

Concept — Embryo sac: The typical angiosperm female gametophyte (embryo sac) develops from one functional megaspore and is, at maturity, 7-celled and 8-nucleate — one egg apparatus (egg + 2 synergids), three antipodals, and one central cell with two polar nuclei.

Step 1 — Count the nuclei: 8 nuclei arise from three mitotic divisions of the megaspore.

Step 2 — Count the cells: the two polar nuclei share one central cell, so there are 7 cells.

Why other options are wrong:

- (A) it is not 8-celled; the two polar nuclei lie in a single cell.
- (C) the nucleate count is 8, not 7.
- (D) 6-celled, 6-nucleate is incorrect for the typical Polygonum-type sac.

Final Answer: 7-celled and 8-nucleate ⇒ **B**

Answer: (B) [Go Back to Q29](#)

Q30.

Solution

Concept — Polyembryony: The occurrence of more than one embryo in a single seed is called polyembryony. In many citrus and mango varieties, extra embryos arise from the nucellus or integument cells surrounding the embryo sac.

Step 1 — Read the clue: more than one embryo per seed.

Step 2 — Name it: polyembryony.

Why other options are wrong:

- (A) double fertilization is the two-fusion event in the embryo sac.
- (B) parthenocarpy is fruit formation without fertilization.
- (D) self-incompatibility prevents self-fertilisation.

Final Answer: polyembryony ⇒ **C**

Answer: (C) [Go Back to Q30](#)



Q31.

Solution

Concept — Sertoli cells: The seminiferous tubules contain dividing germ cells and large pyramidal Sertoli (nurse) cells. Sertoli cells nourish and support the developing spermatids and are regulated by FSH.

Step 1 — Identify the nourishing cells: Sertoli cells.

Step 2 — State their role: they provide nutrition to the developing sperm cells.

Why other options are wrong:

- (B) Leydig (interstitial) cells lie outside the tubules and secrete testosterone.
- (C) the epididymis stores sperm; it is not inside the seminiferous tubule.
- (D) 'acrosomal cells' is not a recognised cell type; the acrosome is a sperm structure.

Final Answer: Sertoli cells ⇒

Answer: (A) [Go Back to Q31](#)

Q32.

Solution

Concept — Gestation period: The human gestation period — the time from fertilisation to childbirth — averages about 280 days, i.e. roughly nine calendar months (about 40 weeks counted from the last menstrual period).

Step 1 — Recall the standard figure: about 280 days.

Step 2 — Express in months: approximately nine months.

Why other options are wrong:

- (A) 14 days is the time to ovulation, not pregnancy.
- (B) 120 days is far too short.
- (C) 180 days (six months) is shorter than the full term.

Final Answer: about 280 days (nine months) ⇒

Answer: (D) [Go Back to Q32](#)



Q33.

Solution

Concept — Assisted reproductive technology: In ZIFT (zygote intra-fallopian transfer) the ovum is fertilised by sperm in the laboratory (in vitro) and the resulting zygote / early (up to 8-blastomere) embryo is transferred into the fallopian tube. (If the late blastocyst is placed in the uterus it is IUT.)

Step 1 — Note the key steps: fertilisation in the lab, embryo transferred to the fallopian tube.

Step 2 — Match the technique: this is ZIFT.

Why other options are wrong:

- (A) in GIFT the gametes (not a lab-formed embryo) are transferred into the fallopian tube.
- (C) tubectomy is a sterilisation method, not a fertility treatment.
- (D) amniocentesis is a prenatal diagnostic test, not an ART.

Final Answer: ZIFT \Rightarrow

[Go Back to Q33](#)

Q34.

Solution

Concept — Punnett square: The Punnett square is a chequer-board in which the gametes of the two parents are written along the two sides; combining them in the cells gives all possible genotypes of the offspring and their expected proportions.

Step 1 — State its purpose: to predict offspring genotypes and their ratios.

Step 2 — Confirm: it is a graphical aid for working out a cross.

Why other options are wrong:

- (B) it does not measure mutation rate.
- (C) it does not count chromosomes.
- (D) gene mapping uses recombination frequencies, not a Punnett square.

Final Answer: predicts offspring genotypes and ratios \Rightarrow

[Go Back to Q34](#)



Q35.

Solution

Concept — Polygenic inheritance: When a single trait is controlled by three or more genes, each contributing a small additive effect, the trait shows continuous variation. Human skin colour and height are classic examples of such polygenic (quantitative) inheritance.

Step 1 — Read the clues: continuous variation, several genes with additive effects.

Step 2 — Name it: polygenic (quantitative) inheritance.

Why other options are wrong:

- (A) incomplete dominance gives an intermediate phenotype of one gene pair.
- (B) codominance is the simultaneous expression of both alleles of one gene.
- (D) pleiotropy is one gene affecting many traits — the reverse situation.

Final Answer: polygenic inheritance \Rightarrow

[Go Back to Q35](#)

Q36.

Solution

Concept — Recombination frequency: Crossing over is more likely to occur between genes that are far apart on a chromosome. Hence the recombination frequency increases as the distance between two linked genes increases; this is the basis of genetic mapping.

Step 1 — Relate distance and crossing over: greater distance gives more chance of a crossover between the loci.

Step 2 — Conclude: recombination frequency increases with distance.

Why other options are wrong:

- (A) it does not decrease; closely linked genes recombine rarely.
- (C) it is not exactly zero for genes some distance apart.
- (D) it does not stay fixed at 50%; that value applies to unlinked genes.

Final Answer: increases \Rightarrow

[Go Back to Q36](#)



Q37.

Solution

Concept — Down's syndrome: Down's syndrome is caused by an extra copy of chromosome 21 (trisomy-21), giving 47 chromosomes. Affected persons show a short stature, a small round head, a furrowed protruding tongue and intellectual disability.

Step 1 — Match the cause: an additional chromosome 21.

Step 2 — Match the features: the described traits are those of Down's syndrome.

Why other options are wrong:

- (A) Turner's syndrome (XO) is a sex-chromosome aneuploidy.
- (B) Klinefelter's syndrome (XXY) is also a sex-chromosome disorder.
- (D) haemophilia is an X-linked clotting disorder, not an autosomal trisomy.

Final Answer: Down's syndrome \Rightarrow

Answer: (C) [Go Back to Q37](#)

Q38.

Solution

Concept — Messenger RNA: mRNA is transcribed from a DNA template and carries the genetic message as a sequence of codons to the ribosome, where it serves as the template that is read during translation to build the polypeptide.

Step 1 — Read the role: carries codons from DNA to the ribosome as the protein template.

Step 2 — Name the RNA: messenger RNA (mRNA).

Why other options are wrong:

- (A) rRNA forms part of the ribosome structure.
- (B) tRNA brings amino acids to the ribosome.
- (C) snRNA takes part in RNA splicing, not as the coding template.

Final Answer: messenger RNA (mRNA) \Rightarrow

Answer: (D) [Go Back to Q38](#)



Q39.

Solution

Concept — Anticodon: Each tRNA carries a specific three-base sequence, the anticodon, which is complementary to a codon on the mRNA. Base-pairing between codon and anticodon ensures the correct amino acid is added during translation.

Step 1 — Read the description: a three-base tRNA sequence that pairs with an mRNA codon.

Step 2 — Name it: the anticodon.

Why other options are wrong:

- (B) a promoter is a DNA site where transcription begins.
- (C) an operator is a DNA control region in an operon.
- (D) a start codon (AUG) lies on the mRNA, not on the tRNA as its recognition triplet.

Final Answer: anticodon ⇒

[Go Back to Q39](#)

Q40.

Solution

Concept — Adaptive radiation: The evolution of many divergent species from a single common ancestor, each adapted to a different niche in a geographical area, is adaptive radiation. Darwin's finches, with their varied beaks, are the textbook example.

Step 1 — Read the clue: one ancestor diverging into many adapted forms in one area.

Step 2 — Name it: adaptive radiation.

Why other options are wrong:

- (A) convergent evolution makes unrelated species similar; here the species share one ancestor.
- (C) genetic drift is random change in allele frequency, not divergence into niches.
- (D) industrial melanism is selection of dark moths, a single-trait example.

Final Answer: adaptive radiation ⇒



Answer: (B) [Go Back to Q40](#)

Q41.

Solution

Concept — Common cold: The common cold is caused chiefly by rhino viruses, which infect the nose and upper respiratory tract, producing nasal congestion, sneezing, sore throat and cough.

Step 1 — Identify the pathogen type: a virus.

Step 2 — Name it: rhino viruses.

Why other options are wrong:

- (A) *Salmonella typhi* causes typhoid.
- (B) *Entamoeba histolytica* causes amoebiasis (amoebic dysentery).
- (D) *Wuchereria* causes filariasis.

Final Answer: rhino viruses ⇒

Answer: (C) [Go Back to Q41](#)

Q42.

Solution

Concept — Allergy and histamine: In an allergic response, the allergen triggers mast cells (and basophils) to release chemicals, chiefly histamine (and serotonin). Histamine causes the sneezing, watery eyes, inflammation and bronchial constriction of allergy.

Step 1 — Identify the released chemical: histamine.

Step 2 — Link to symptoms: it produces the typical allergic symptoms (hence anti-histamine drugs relieve them).

Why other options are wrong:

- (A) insulin is a blood-glucose hormone.
- (B) fibrinogen is a clotting protein.
- (C) haemoglobin is the oxygen-carrying pigment.

Final Answer: histamine ⇒

Answer: (D) [Go Back to Q42](#)



Q43.

Solution

Concept — Industrial alcohol: The yeast *Saccharomyces cerevisiae* (brewer's/baker's yeast) ferments sugars in the must into ethanol and CO₂; it is the chief microbe used for brewing and industrial alcohol production.

Step 1 — Identify the fermenting microbe: *Saccharomyces cerevisiae*.

Step 2 — Note its product: ethanol from sugar fermentation.

Why other options are wrong:

- (A) *Lactobacillus* produces lactic acid (curd), not industrial ethanol.
- (B) *Aspergillus niger* is used for citric acid production.
- (D) *Clostridium* is used for butyric acid/acetone–butanol, not ethanol brewing.

Final Answer: *Saccharomyces cerevisiae* ⇒

Answer: (C) [Go Back to Q43](#)

Q44.

Solution

Concept — Single-cell protein: Single-cell protein is microbial biomass used as a protein supplement. Microbes such as the cyanobacterium *Spirulina*, the alga *Chlorella*, mushrooms and yeasts are rich SCP sources.

Step 1 — Pick an SCP organism: *Spirulina* is a well-known SCP source.

Step 2 — Confirm: it is grown on a large scale as a protein-rich food.

Why other options are wrong:

- (B) a bacteriophage is a virus, not a protein food.
- (C) *Plasmodium* is the malarial parasite.
- (D) *Taenia* is a parasitic tapeworm.

Final Answer: *Spirulina* ⇒

Answer: (A) [Go Back to Q44](#)



Q45.

Solution

Concept — Naming of *EcoRI*: A restriction enzyme is named from its source organism. In *EcoRI*, 'E' is from the genus *Escherichia*, 'co' from the species *coli*, 'R' from the strain RY13, and 'I' (Roman one) from the order of its discovery in that strain.

Step 1 — Decode the first letter: 'E' comes from the genus *Escherichia*.

Step 2 — Confirm the convention: the first letter always denotes the genus.

Why other options are wrong:

- (A) the order of discovery is shown by the Roman numeral (I), not 'E'.
- (C) the strain is denoted by 'R', not 'E'.
- (D) the recognition sequence is not part of the name.

Final Answer: the genus *Escherichia* ⇒

[Go Back to Q45](#)

Q46.

Solution

Concept — Selectable marker: A cloning vector carries a selectable marker (e.g. a gene for antibiotic resistance such as ampicillin resistance). When host cells are grown on the antibiotic, only the transformed cells (which received the vector) survive, so the marker allows their selection.

Step 1 — State the marker's role: to identify and select transformed host cells.

Step 2 — Confirm: untransformed cells lacking the marker are killed by the antibiotic.

Why other options are wrong:

- (A) starting replication is the role of the ori.
- (B) being cut by the enzyme is the role of the restriction site.
- (D) coding for the protein of interest is the role of the cloned foreign gene.

Final Answer: allows selection of transformed host cells ⇒

[Go Back to Q46](#)



Q47.

Solution

Concept — GEAC: In India the Genetic Engineering Appraisal Committee (GEAC) decides on the validity of GM research and on the safety of releasing GM organisms for public use.

Step 1 — Match the function: approval of GM research and GMO release.

Step 2 — Name the body: GEAC.

Why other options are wrong:

- (A) ICMR coordinates medical research, not GMO clearance.
- (B) NCERT is an education/curriculum body.
- (C) WHO is the global health body, not the Indian GM regulator.

Final Answer: GEAC ⇒

Answer: (D) [Go Back to Q47](#)

Q48.

Solution

Concept — Food web: In nature, food chains are not isolated; one organism may be eaten by several predators and may itself feed on several kinds of food. The resulting network of many interconnected food chains is a food web.

Step 1 — Read the clue: many interlinked food chains.

Step 2 — Name it: a food web.

Why other options are wrong:

- (B) a single food chain is just one straight feeding sequence.
- (C) an ecological pyramid is a graphic of numbers/biomass/energy, not the network.
- (D) a trophic level is one feeding step, not the network of chains.

Final Answer: food web ⇒

Answer: (A) [Go Back to Q48](#)



Q49.

Solution

Concept — Population attributes: A population has attributes that a single individual lacks — such as birth rate (natality), death rate (mortality), sex ratio, age distribution and population density. An individual can only be born, can die or have an age.

Step 1 — Distinguish population vs individual traits: rates and ratios belong to the population.

Step 2 — Select the population attribute: birth rate, death rate and sex ratio.

Why other options are wrong:

- (A) the birth or death of one organism is an individual event.
- (C) body weight is an individual character.
- (D) the age of a single organism is an individual character (the population has an age *distribution*).

Final Answer: birth rate, death rate and sex ratio ⇒

Answer: (B) [Go Back to Q49](#)

Q50.

Solution

Concept — IUCN Red List: The IUCN Red List (Red Data Book) is the global inventory of the conservation status of species, grouping them into categories such as Extinct, Critically Endangered, Endangered, Vulnerable and Least Concern.

Step 1 — Match the description: a worldwide catalogue of species' conservation status with such categories.

Step 2 — Name it: the IUCN Red List.

Why other options are wrong:

- (A) a sacred grove register is a local conservation record, not the global status list.
- (B) the Ramsar list catalogues wetlands of international importance.
- (D) a wildlife census counts numbers; it does not assign Red-List categories.

Final Answer: IUCN Red List (Red Data Book) ⇒

Answer: (C) [Go Back to Q50](#)



Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	D	3	A	4	B	5	D
6	A	7	B	8	C	9	A	10	B
11	D	12	C	13	A	14	B	15	D
16	A	17	A	18	B	19	D	20	A
21	C	22	D	23	B	24	C	25	D
26	A	27	B	28	C	29	B	30	C
31	A	32	D	33	B	34	A	35	C
36	B	37	C	38	D	39	A	40	B
41	C	42	D	43	C	44	A	45	B
46	C	47	D	48	A	49	B	50	C

