DAY FORTY

Mock Test 3

Based on Complete Syllabus

Instruction

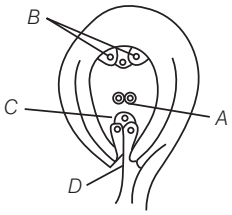
- This question paper contains of 100 Multiple Choice Questions of Biology (Botany & Zoology), divided into two Sections; section A and section B.
- Section-A contains 35 questions and all questions are compulsory.
- Section-B contains 15 questions out of which only 10 questions are to be attempted.
- Each question carries 4 marks.

Botany

Section-A

1 Plants which have been decapitated are more suited for sprouting because
(a) auxin content increases
(b) cell division accelerates
(c) apical dominance gets removed
(d) dormancy occurs

2 Which of the following indicates correct names of *A, B, C* and *D* regions of the given diagram?



(a) A–Secondary nucleus *B*–Antipodals
C–Egg cell *D*–Micropyle
(b) *A*–Synergids *B*–Secondary nucleus
C–Egg apparatus *D*–Integuments
(c) *A*–Antipodals *B*–Male gametes
C–Zygote *D*–Micropyle
(d) *A*–Secondary nucleus *B*–Synergids
C–Egg cell *D*–Integuments

3 With reference to enzymes, which one of the following statement is true?
(a) Apoenzyme = Holoenzyme + Coenzyme
(b) Holoenzyme = Apoenzyme + Coenzyme
(c) Coenzyme = Apoenzyme + Holoenzyme
(d) Holoenzyme = Coenzyme + Apoenzyme

4 The process in which root is induced on a stem branch, while it is still attached to the parent plant is called as
(a) tissue culture (b) cutting
(c) grafting (d) layering

5 To achieve the transformation of a host cell with a recombinant DNA, it should first be made competent which refers to
(a) increased metabolic reactions
(b) decreased metabolic reactions
(c) increased efficiency of foreign DNA uptake
(d) increased rate of cell division

6 Cork cambium gives rise to
(a) phellogen and secondary cortex
(b) phellogen, phelloderm and secondary cortex
(c) cork and phellogen
(d) cork and secondary cortex

7 Disease resistance in crops is obtained by
(a) crossing with new varieties
(b) crossing with wild varieties
(c) injecting with organic compounds
(d) None of the above

8 Winged pollen grains are present in
(a) mango (b) *Cycas*
(c) mustard (d) *Pinus*

9 Natality refers to
(a) number of individuals leaving the habitat
(b) birth rate
(c) death rate
(d) number of individuals entering a habitat

10 World Ozone Day is celebrated on
(a) 16th September (b) 21st April
(c) 5th June (d) 22nd April

11 Which of the following is a secondary pollutant?
(a) SO_2 (b) CO_2
(c) CO (d) O_3

12 Stomatal movement is not affected by
(a) O_2 concentration (b) Light
(c) Temperature (d) CO_2 concentration

13 The stage during which separation of the paired homologous chromosomes begin is
(a) diakinesis (b) diplotene
(c) pachytene (d) zygotene

14 Stomata in grass leaf are
(a) rectangular (b) kidney-shaped
(c) dumb-bell-shaped (d) barrel-shaped

15 Secondary xylem and phloem in dicot stem are produced by
(a) phellogen (b) vascular cambium
(c) apical meristem (d) axillary meristem

16 Pneumatophores occur in
(a) carnivorous plants
(b) free-floating hydrophytes
(c) halophytes
(d) submerged hydrophytes

17 Casparian strips occur in
(a) cortex (b) pericycle
(c) epidermis (d) endodermis

18 Plants having little or no secondary growth are
(a) conifers (b) deciduous angiosperms
(c) grasses (d) cycads

19 Sweet potato is a modified
(a) tap root (b) adventitious root
(c) stem (d) rhizome

20 In stratosphere, which one of the following elements acts as a catalyst in degradation of ozone and release of molecular oxygen?
(a) Fe (b) Cl
(c) Carbon (d) Oxygen

21 Which two functional groups are characteristic of sugars?
(a) Carbonyl and phosphate
(b) Carbonyl and methyl
(c) Hydroxyl and methyl
(d) Carbonyl and hydroxyl

22 Which among the following is not a prokaryote?
(a) *Nostoc* (b) *Mycobacterium*
(c) *Saccharomyces* (d) *Oscillatoria*

23 The Golgi complex participates in
(a) respiration in bacteria
(b) formation of secretory vesicles
(c) fatty acid breakdown
(d) activation of amino acid

24 Which of the following is not a product of light reaction of photosynthesis?
(a) NADPH (b) NADH
(c) ATP (d) Oxygen

25 Nissl bodies are mainly composed of
(a) nucleic acids and SER
(b) DNA and RNA
(c) proteins and lipids
(d) free ribosomes and RER

26 Which one of these statement is incorrect?
(a) Glycolysis operates as long as it is supplied with NAD that can pick up hydrogen atoms.
(b) Glycolysis occurs in cytosol
(c) Enzymes of TCA cycle are present in mitochondrial matrix
(d) Oxidative phosphorylation takes place in outer mitochondrial membrane

27 Select the incorrect match.
(a) Submetacentric chromosomes – L-shaped chromosomes
(b) Allosomes – Sex chromosomes
(c) Lampbrush chromosomes – Diplotene bivalents
(d) Polytene chromosomes – Oocytes of amphibians

28 Which one of the following events does not occur in rough endoplasmic reticulum?
(a) Cleavage of signal peptide
(b) Protein glycosylation
(c) Protein folding
(d) Phospholipid synthesis

29 Many ribosomes may associate with a single *m*RNA to form multiple copies of a polypeptide simultaneously. Such strings of ribosomes are termed as
(a) plastidome (b) polyhedral bodies
(c) polysome (d) nucleosome

30 Which of the following characteristics represents 'Inheritance of blood groups' in humans?

1. Dominance
2. Codominance
3. Multiple allele
4. Incomplete dominance
5. Polygenic inheritance

(a) 2, 4 and 5 (b) 1, 2 and 3
(c) 2, 3 and 5 (d) 1, 3 and 5

31 An example of colonial alga is

(a) *Chlorella* (b) *Volvox*
(c) *Ulothrix* (d) *Spirogyra*

32 Root hairs develop from the region of

(a) maturation (b) elongation
(c) root cap (d) meristematic activity

33 Select the mismatch.

(a)	*Frankia*	*Alnus*
(b)	*Rhodospirillum*	Mycorrhiza
(c)	*Anabaena*	Nitrogen fixer
(d)	*Rhizobium*	Alfa-fa

34 In *Bougainvillea* thorns are the modifications of

(a) stipules (b) adventitious root
(c) stem (d) leaf

35 The association of histone H1 with a nucleosome indicates

(a) transcription is occurring
(b) DNA replication is occurring
(c) the DNA is condensed into chromatin fibre
(d) the DNA double helix is exposed

Section-B

36 Which of the following four cell structures is correctly matched with the accompanying description?

(a) Plasma membrane — Outer layer of cellulose or chitin or absent.
(b) Mitochondria — Bacteria-like elements with inner membrane forming sacs containing chlorophyll, found in plant cell and algae.
(c) Chloroplasts — Bacteria-like elements with inner membrane highly folded.
(d) Golgi apparatus — Stacks of flattened vesicles.

37 Cyathium inflorescence shows

(a) scorpioid cyme showing central female, many peripheral male flowers
(b) scorpioid cyme showing central male, many peripheral female flowers
(c) dichasial cyme showing two whorls of 3-9 flowers
(d) dichasial cyme showing two whorls, one of male and another of female flowers

38 Which of the following statements are true?

I. The apoplastic movement of water occurs exclusively through the cell wall without crossing any membrane.
II. Solutes present in a cell (or in any solution) increase the free energy of water or water potential.
III. The symplastic movement occurs from cell to cell through the plasmodesmata.
IV. Membrane permeability depends on the membrane composition, as well as the chemical nature of solute.

(a) I and II (b) II and IV
(c) I, III and IV (d) I, II and IV

39 Cultivation of *Bt* cotton has been much in the news. The prefix *Bt* means

(a) barium-treated cotton seeds
(b) bigger thread variety of cotton with better tensile strength
(c) produced by biotechnology using restriction enzymes and ligases
(d) carrying an endotoxin gene from *Bacillus thuringiensis*

40 Select the characters, which are not applicable to the family–Solanaceae.

I. Epipetalous and syngenesious anthers.
II. Bicarpellary and syncarpous ovary.
III. Oblique ovary with axile placentation.
IV. Stamen six, arranged in two whorls.
V. Bicarpellary, syncarpous and inferior ovary.

(a) II and III (b) I, IV and V
(c) II, IV and V (d) I and III

41 Match the following columns.

Column I	Column II
A. Nitrous oxide (N_2O)	1. Secondary pollutant from car exhausts
B. Chlorofluorocarbons (CFCs)	2. Combustion of fossil fuels, wood, etc.
C. Methane (CH_4)	3. Denitrification
D. Ozone (O_3)	4. Refrigerators, aerosol and sprays
E. Carbon dioxide (CO_2)	5. Cattle, rice fields and toilets

Codes

	A	B	C	D	E
(a)	3	4	5	1	2
(b)	5	1	3	4	2
(c)	4	5	1	2	3
(d)	1	3	4	5	2

42 Find out the correct statement.

(a) Monosomy and nullisomy are the two types of euploidy
(b) Polyploidy is more common in animals than in plants
(c) Polyploids occur due to the failure in complete separation of sets of chromosomes
(d) $2n-1$ condition results in trisomy

43 Match the following columns.

	Column I		Column II
A.	Initiation of spindle fibres	1.	Anaphase-I
B.	Synthesis of RNA and protein	2.	Zygotene
C.	Action of endonuclease	3.	G_1-phase
D.	Movement of chromatids towards opposite poles	4.	Pachytene
		5.	Anaphase-II

Codes

	A	B	C	D
(a)	2	3	4	5
(b)	3	2	1	5
(c)	1	3	5	4
(d)	5	3	1	2

44 Select the correct events leading to the opening of the stomata.

I. Decline in guard cell solutes.
II. Lowering of osmotic potential of guard cells.
III. Rise in potassium levels in guard cells.
IV. Movement of water from neighbouring cells into guard cells.
V. Guard cells becoming flaccid.

(a) I and V (b) II, III and IV
(c) I, III and IV (d) II, IV and V

45 Match the following columns.

	Column I (Microbes)		Column II (Industrial products)
A.	*Aspergillus niger*	1.	Ethanol
B.	*Clostridium butylicum*	2.	Statins
C.	*Saccharomyces cerevisiae*	3.	Citric acid
D.	*Trichoderma polysporum*	4.	Butyric acid
E.	*Monascus purpureus*	5.	Cyclosporin-A

Codes

	A	B	C	D	E
(a)	4	5	2	1	3
(b)	5	4	1	2	3
(c)	3	4	1	5	2
(d)	3	4	5	1	2

46 Which one of the following is incorrect about the light reaction of photosynthesis?

(a) Light energy provides energy for the photolysis of water through excitation of the reaction centre of PS-II
(b) The flow of electrons from water to NADP in non-cyclic electron transport produces one ATP
(c) Reactions of the two photosystems are needed for the reduction of NADP
(d) P_{680} and P_{700} are the reaction centres of PS-I and PS-II, respectively

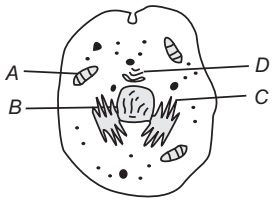
47 Deficiencies of certain micronutrients disrupt many biologically important processes by inactivating the enzymes necessary for them. Among the list given below, which group of three elements are components of enzymes needed during such processes.

(a) Co, Ni, Cu (b) Fe, Mn, Mo
(c) Fe, Mn, Mg (d) N, P, K

48 In gymnosperms, the pollen chamber represents

(a) a cell in the pollen grain in which the sperms are formed
(b) a cavity in the ovule in which pollen grains are stored after pollination
(c) an opening in the megagametophyte through which the pollen tube approaches the egg
(d) the microsporangium in which pollen grains develop

49 The RER in the cell synthesises protein, which would be later used in building the plasma membrane. But it is observed that the protein in the membrane is slightly different from the protein made in the RER. The protein was probably modified in another cell organelle. Identify that organelle in the given diagram.



(a) *D* (b) *A* (c) *B* (d) *C*

50 Match the following columns.

	Column I		Column II
A.	*Anthoceros*	1.	Walking fern
B.	*Adiantum*	2.	Alga
C.	*Sargassum*	3.	Inferae
D.	Prothallus	4.	Gametophyte
E.	Asterales	5.	Hornwort
		6.	Liverwort

Codes

	A	B	C	D	E
(a)	6	5	1	3	4
(b)	5	4	3	2	1
(c)	5	1	2	4	3
(d)	3	2	1	5	4

Zoology

Section-A

51 Among the following options, which one is an exclusive characteristic of a living thing or an organism?
(a) Increase in mass only internally
(b) Perception of events occurring in the environment
(c) Increase in mass by accumulation of material both externally and internally
(d) Occurrence of isolated metabolic reactions *in vitro*

52 Among the following sets of examples for divergent evolution, select the incorrect option.
(a) Brain of bat, man and cheetah
(b) Heart of bat, man and cheetah
(c) Forelimbs of man, bat and cheetah
(d) Eye of *Octopus,* bat and man

53 Conversion of milk to curd improves its nutritional value by increasing the amount of
(a) vitamin-B_{12} (b) vitamin-A
(c) vitamin-D (d) vitamin-E

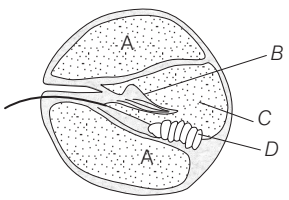
54 Competition for food, light and space in its most severe forms occurs between
(a) distantly related species living in separate habitats
(b) distantly related species living in similar habitats
(c) closely related species living in separate habitat
(d) closely related species living in the same area

55 Damage to thymus in a child may lead to
(a) a reduction in haemoglobin content of blood
(b) a reduction in stem cell production
(c) loss of antibody-mediated immunity
(d) loss of cell-mediated immunity

56 DNA fingerprinting refers to
(a) molecular analysis of profiles of DNA samples
(b) analysis of DNA samples using imprinting device
(c) techniques used for molecular analysis of different specimens of DNA
(d) techniques used for identification of fingerprints of individuals

57 When the length of muscle contraction remains constant, but the tension increases sharply, the state is known as
(a) isotonic contraction (b) rigor mortis
(c) isometric contraction (d) fatigue

58. Given below is a diagrammatic cross-section of a single loop of human cochlea



Which one of the following options correctly represents the names of three different parts?
(a) *D* – Sensory hair cells, *A* – Endolymph, *B*–Tectorial membrane
(b) *A* – Perilymph, *B* – Tectorial membrane, *C* – Endolymph
(c) *B* – Tectorial membrane, *C* – Perilymph, *D* – Secretory cells
(d) *C* – Endolymph, *D* – Sensory hair cells, *A* – Serum

59 Habitat loss and fragmentation, overexploitation, alien species invasion and co-extinction are causes for
(a) population explosion (b) migration
(c) biodiversity loss (d) ecological succession

60 Which one of the following terms describe human dentition?
(a) Pleurodont, Monophyodont, Homodont
(b) Thecodont, Diphyodont, Heterodont
(c) Thecodont, Diphyodont, Homodont
(d) Pleurodont, Diphyodont, Heterodont

61 Calcium is important in skeletal muscle contraction because it
(a) detaches the myosin head from the actin filament
(b) activates the myosin ATPase by binding to it
(c) binds to troponin to remove the masking of active sites on actin for myosin
(d) prevents the formation of bonds between the myosin cross bridges and the actin filament

62 Match the items given in Column I with those in Column II and select the correct option given below.

Column I	Column II
A. Fibrinogen	1. Osmotic balance
B. Globulin	2. Blood clotting
C. Albumin	3. Defence mechanism

Codes

	A	B	C				
(a)	1	3	2	(b)	1	2	3
(c)	3	2	1	(d)	2	3	1

63 Which among these is the correct combination of aquatic mammals ?
(a) Seals, Dolphins, Sharks
(b) Dolphins, Seals, *Trygon*
(c) Whales, Dolphins, Seals
(d) *Trygon*, Whales, Seals

64 Which one of the following is related to *ex-situ* conservation of threatened animals and plants?
(a) Wildlife Safari parks (b) Biodiversity hotspots
(c) Amazon rainforest (d) Himalayan region

65 Hypersecretion of growth hormone in adults does not cause further increase in height because
(a) growth hormone becomes inactive in adults
(b) epiphyseal plates close after adolescence
(c) bones loose their sensitivity to growth hormone in adults
(d) muscle fibres do not grow in size after birth

66 Which of the following in sewage treatment removes suspended solids?
(a) Tertiary treatment (b) Secondary treatment
(c) Primary treatment (d) Sludge treatment

67 Thalassemia and sickle-cell anaemia are caused due to a problem in globin molecule synthesis. Select the correct statement.
(a) Both are due to a qualitative defect in global chain synthesis
(b) Both are due to a quantitative defect in globin chain synthesis
(c) Thalassemia is due to less synthesis of globin molecules
(d) Sickle-cell anaemia is due to a quantitative problem of globin molecules

68 The region of biosphere reserve, which is legally protected and where no human activity is allowed is known as
(a) core zone (b) buffer zone
(c) transition zone (d) restoration zone

69 In case of poriferans, the spongocoel is lined with flagellated cells called
(a) ostia (b) oscula
(c) choanocytes (d) mesenchymal cells

70 A decrease in blood pressure/volume will not cause the release of
(a) renin (b) atrial natriuretic factor
(c) aldosterone (d) ADH

71 Frog's heart when taken out of the body continues to beat for some time.
Select the best option from the following statements.
I. Frog is a poikilotherm.
II. Frog does not have any coronary circulation.
III. Heart is "myogenic" in nature.
IV. Heart is autoexcitable.
(a) Only III (b) Only IV (c) I and II (d) III and IV

72 Myelin sheath is produced by
(a) Schwann cells and Oligodendrocytes
(b) Astrocytes and Schwann cells
(c) Oligodendrocytes and Osteoclasts
(d) Osteoclasts and Astrocytes

73 Capacitation occurs in
(a) rete testis (b) epididymis
(c) vas deferens (d) female reproductive tract

74 A temporary endocrine gland in the human body is
(a) pineal gland (b) corpus cardiacum
(c) corpus luteum (d) corpus allatum

75 Which of the following options best represents enzyme composition of pancreatic juice?
(a) Amylase, peptidase, trypsinogen, rennin
(b) Amylase, pepsin, trypsinogen, maltase
(c) Peptidase, amylase, pepsin, rennin
(d) Lipase, amylase, trypsinogen, procarboxypeptidase

76 A disease caused by an autosomal primary non-disjunction is
(a) Down's syndrome (b) Klinefelter's syndrome
(c) Turner's syndrome (d) Sickle-cell anaemia

77 Match the items given in Column I with those in Column II and select the correct option given below.

	Column I		Column II
A.	Proliferative phase	1.	Breakdown of endometrial lining
B.	Secretory phase	2.	Follicular phase
C.	Menstruation	3.	Luteal phase

	A	B	C
(a)	2	3	1
(c)	3	2	1

	A	B	C
(b)	1	3	2
(d)	3	1	2

78 Which of the following structures or regions is incorrectly paired with its function?

(a)	Hypothalamus	Production of releasing hormones and regulation of temperature, hunger and thirst.
(b)	Limbic system	Consists of fibre tracts that interconnect different regions of brain; controls movement.
(c)	Medulla oblongata	Controls respiration and cardiovascular reflexes.
(d)	Corpus callosum	Band of fibres connecting left and right cerebral hemispheres.

79 In case of a couple, where the male is having a very low sperm count, which technique will be suitable for fertilisation?
(a) Intrauterine Transfer
(b) Gamete Intracytoplasmic Fallopian Transfer
(c) Artificial Insemination
(d) Intracytoplasmic Sperm Injection

80 Which of the following RNAs should be most abundant in animal cell?
(a) *r*RNA (b) *t*RNA (c) *m*RNA (d) *mi*RNA

81 Match the items given in Column I with those in Column II and select the correct option given below.

	Column I		Column II
A.	Eutrophication	1.	UV-B radiation
B.	Sanitary landfill	2.	Deforestation
C.	Snow blindness	3.	Nutrient enrichment
D.	Jhum cultivation	4.	Waste disposal

Codes

	A	B	C	D
(a)	3	4	1	2
(c)	2	1	3	4

	A	B	C	D
(b)	1	3	4	2
(d)	1	2	4	3

82 In a growing population of a country,
(a) reproductive and pre-reproductive individuals are equal in number
(b) reproductive individuals are less than the post-reproductive individuals
(c) pre-reproductive individuals are more than the reproductive individuals
(d) pre-reproductive individuals are less than the reproductive individuals

83 The pivot joint between atlas and axis is a type of
(a) fibrous joint (b) cartilaginous joint
(c) synovial joint (d) saddle joint

84 The DNA fragments separated on an agarose gel can be visualised after staining with
(a) bromophenol blue (b) acetocarmine
(c) aniline blue (d) ethidium bromide

85 GnRH, a hypothalamic hormone, needed in reproduction, acts on
(a) anterior pituitary gland and stimulates secretion of LH and oxytocin
(b) anterior pituitary gland and stimulates secretion of LH and FSH
(c) posterior pituitary gland and stimulates secretion of oxytocin and FSH
(d) posterior pituitary gland and stimulates secretion of LH and relaxin

Section-B

86 In an individual, the goblet cells have suddenly become non-functional or inactive. This development will adversely affect the
(a) secretion of HCL
(b) conversion of inactive pepsinogen to active form
(c) smooth movement of food down the intestine
(d) carbohydrate absorption occurring in intestine

87 Which one of the following is the correct matching of the events occurring during menstrual cycle?

(a)	Ovulation	—	LH and FSH attain peak level and sharp fall in the secretion of progesterone
(b)	Proliferative phase	—	Rapid regeneration of myometrium and maturation of Graafian follicle
(c)	Development of corpus luteum	—	Secretory phase and increased secretion of progesterone
(d)	Menstruation	—	Breakdown of myometrium and ovum not fertilised

88 Blood analysis of a patient reveals an unusually high quantity of carboxyhaemoglobin content. Which of the following conclusion is most likely to be correct?
(a) The patient has been inhaling polluted air containing usually high content of carbon disulphide
(b) The patient has been inhaling polluted air containing usually high content of chloroform
(c) The patient has been inhaling polluted air containing usually high content of carbon dioxide
(d) The patient has been inhaling polluted air containing usually high content of carbon monoxide

89 Which one of the following options correctly describes predator?
(a) Predator is an interspecific interaction with a feeding strategy
(b) Predator and prey maintain a fairly stable population through time where, rarely one population becomes abundant or scarce
(c) Predators act as conduits for energy transfer across trophic levels
(d) All of the above

90 Identify the incorrect statement w.r.t sponges.
(a) Sponges have tissue level of body organisation
(b) Cell aggregate body plan is present in them
(c) Sponges mostly exhibit external fertilisation
(d) Both (a) and (c)

91 Which of the following is correct for the circulatory system of cockroach?
(a) It is present on the dorsal side and it has thirteen units of heart in abdominal region
(b) It is present on the ventral side and it has two abdominal and three thoracic units of heart
(c) It is present on the ventral side and it has thirteen units of heart in abdominal region
(d) It is present on the dorsal side and it has ten abdominal and three thoracic units of heart

92 What are homologous structures?
(a) Organs that have no function now but had an important function in ancestors
(b) Organs appearing only in embryonic stage and disappearing later in the adult
(c) Organs with anatomical similarities but performing different functions
(d) Organs with anatomical dissimilarities but performing same functions

93 What is the amino acid sequence encoded by the base sequence
UCA UUU UCC GGG AGU of a *m*RNA segment?
(a) Methionine – Phenylalanine – Serine – Glycine – Serine
(b) Glycine – Serine – Phenylalanine – Serine – Glycine
(c) Serine – Phenylalanine – Serine – Glycine – Serine
(d) Serine – Phenylalanine – Glycine – Serine – Glycine

94 Match the following columns.

Column I (Epithelial tissue)	Column II (Location)
A. Cuboidal	1. Epidermis of skin
B. Ciliated	2. Inner lining of blood vessels
C. Columnar	3. Inner surface of gall bladder
D. Squamous	4. Inner lining of Fallopian tube
E. Keratinised squamous	5. Lining of pancreatic duct

Codes

	A	B	C	D	E
(a)	5	4	2	3	1
(c)	5	4	3	2	1

	A	B	C	D	E
(b)	3	4	5	2	1
(d)	3	4	5	1	2

95 In a Cu-T, the intrauterine contraceptive device, the Cu^+ ions
(a) suppress sperm mobility and fertilisation capacity
(b) make uterus unsuitable for implantation of fertilised egg
(c) make the cervix hostile thus preventing the entry of sperms
(d) All of the above

96 Which one of the following secretion is correctly matched with its source, target and nature of action?

	Secretion	Source	Target	Action
(a)	Gastrin	Stomach lining	Oxyntic cells	Production of HCl
(b)	Inhibin	Sertoli cells	Hypothalamus	Inhibition of secretion of gonadotropin releasing hormone
(c)	Enterokinase	Duodenum	Gall bladder	Release of bile juice
(d)	Atrial natriuretic factor	Sino atrial node M-cells of atria	Juxtaglomerular apparatus	Inhibition of release of renin

97 **Assertion** Dope test is used to estimate the level of blood alcohol by analysing the breath of individuals suspected of drinking alcohol.
Reason A drunken person usually feels tense and less talkative.
(a) Both Assertion and Reason are true and Reason is the correct explanation of Assertion
(b) Both Assertion and Reason are true, but Reason is not the correct explanation of Assertion
(c) Assertion is true, but Reason is false
(d) Both Assertion and Reason are false

98 Read the following statements and select the correct one.
(a) The H^+ released from carbonic acid combines with haemoglobin to form haemoglobinic acid
(b) Oxyhaemoglobin of erythrocytes is alkaline
(c) More than 70% of carbon dioxide is transferred from tissues to the lungs in the form of carbamino compounds
(d) In a healthy person, the haemoglobin content is more than 25 gm per 100 mL

99 Four respiratory enzymes are given below. Arrange them in increasing order of the carbon number of the substrates on which they act.
I. Enolase II. Aconitase
III. Fumarase IV. Alcohol dehydrogenase
(a) II, IV, III, I (b) IV, I, II, III
(c) I, IV, III, II (d) IV, I, III, II

100 An active cooperation exists between the management and local people for activities like settlements, cropping, recreation, etc., in
(a) buffer zone – national parks
(b) core zone – sanctuaries
(c) transition zone – biosphere reserve
(d) manipulation zone – protected areas

Answers

Botany

1	*(c)*	2	*(a)*	3	*(b)*	4	*(d)*	5	*(c)*	6	*(d)*	7	*(b)*	8	*(d)*	9	*(b)*	10	*(a)*
11	*(d)*	12	*(a)*	13	*(b)*	14	*(c)*	15	*(b)*	16	*(c)*	17	*(d)*	18	*(c)*	19	*(b)*	20	*(b)*
21	*(d)*	22	*(c)*	23	*(b)*	24	*(b)*	25	*(d)*	26	*(d)*	27	*(d)*	28	*(d)*	29	*(c)*	30	*(b)*
31	*(b)*	32	*(d)*	33	*(b)*	34	*(c)*	35	*(c)*	36	*(d)*	37	*(a)*	38	*(c)*	39	*(d)*	40	*(b)*
41	*(a)*	42	*(c)*	43	*(a)*	44	*(b)*	45	*(c)*	46	*(d)*	47	*(b)*	48	*(b)*	49	*(a)*	50	*(c)*

Zoology

51	*(b)*	52	*(d)*	53	*(a)*	54	*(d)*	55	*(d)*	56	*(a)*	57	*(c)*	58	*(b)*	59	*(c)*	60	*(b)*
61	*(c)*	62	*(d)*	63	*(c)*	64	*(a)*	65	*(b)*	66	*(c)*	67	*(c)*	68	*(a)*	69	*(c)*	70	*(b)*
71	*(d)*	72	*(a)*	73	*(d)*	74	*(c)*	75	*(d)*	76	*(a)*	77	*(a)*	78	*(b)*	79	*(c)*	80	*(a)*
81	*(a)*	82	*(c)*	83	*(c)*	84	*(d)*	85	*(b)*	86	*(c)*	87	*(c)*	88	*(d)*	89	*(d)*	90	*(d)*
91	*(d)*	92	*(c)*	93	*(c)*	94	*(c)*	95	*(d)*	96	*(d)*	97	*(d)*	98	*(a)*	99	*(a)*	100	*(c)*