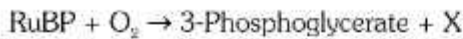




**100.** Photorespiration reaction catalyzed by RuBisCo is shown below :



Identify "X" from the given options :

- (1) Phosphoenolpyruvate
- (2) 2-Phosphoglycolate
- (3) Oxaloacetate
- (4) Malate

**Ans. (2)**

**Sol. NCERT-XI-147**

**101.** Mad cow disease is caused by \_\_\_\_\_.

- (1) prions
- (2) viroids
- (3) *Aspergillus sp.*
- (4) *Mycoplasma sp.*

**Ans. (1)**

**Sol. NCERT-XI-21**

**102.** Which pigment has absorption peak at 700 nm in the photosynthetic reaction centre PS I (P700) ?

- (1) Chlorophyll b
- (2) Chlorophyll a
- (3) Xanthophylls
- (4) Carotenoids

**Ans. (2)**

**Sol. NCERT-XI-138**

**103.** In water, frogs respire using \_\_\_\_\_.

- (1) skin
- (2) buccal cavity
- (3) lungs
- (4) trachea

**Ans. (1)**

**Sol. NCERT-XI-82**

**104.** Which of the following represents the correct sequence of arrangement of bones in the lower limb of humans ?

- (1) Femur-tibia-patella-tarsal
- (2) Patella-femur-tibia-tarsal
- (3) Femur-patella-tibia-tarsal
- (4) Femur-tarsal-patella-tibia

**Ans. (3)**

**Sol. NCERT-XI-226**

**105.** Phyllotaxy is the pattern of arrangement of \_\_\_\_\_.

- (1) leaves
- (2) flowers
- (3) fruits
- (4) sepals

**Ans. (1)**

**Sol. NCERT-XI-61**

**106.** Match **List-I** with **List-II**

<b>List-I</b>	<b>List-II</b>
A. Starch	I. Fights infection
B. Antibody	II. Energy storage
C. Concanavalin	III. Glucose transport
D. Glut-4	IV. Lectin

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

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

**Ans. (2)**

**Sol. NCERT-XI-108, 109, 110**

**107.** Given below are two statements:

**Statement I :** When any plane passing through the central axis of the body divides the organism into two identical halves, it is called radial symmetry.

**Statement II :** In phylum Echinodermata, both adults and larvae are radially symmetrical.

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

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

**Ans. (3)**

**Sol. NCERT-XI-38, 40**

108. Endomembrane system includes \_\_\_\_\_.

- (1) endoplasmic reticulum, Golgi complex, lysosomes and vacuole
- (2) endoplasmic reticulum, chloroplast, peroxisomes and vacuole
- (3) mitochondria, chloroplast, peroxisomes and vacuole
- (4) Golgi complex, chloroplast, peroxisomes and vacuole

Ans. (1)

Sol. NCERT-XI-95

109. How many molecules of pyruvic acid are produced at the end of glycolysis from 206 molecules of glucose ?

- (1) 206
- (2) 309
- (3) 103
- (4) 412

Ans. (4)

Sol. NCERT-XI-156

2 molecules of pyruvic acid are produced at the end of glycolysis from 1 molecule of glucose. So 206 molecules of glucose will produce  $\Rightarrow 206 \times 2 = 412$  molecules of pyruvic acid

110. Which of the following plant growth regulators is used as herbicide ?

- (1) 2,4-D
- (2) Kinetin
- (3) Abscisic acid
- (4) Gibberellin

Ans. (1)

Sol. NCERT-XI-176

111. Given below are two statements :

**Statement I :** In gymnosperms, the male and female gametophytes remain within the sporangia.

**Statement II :** In gymnosperms, seeds are not covered.

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

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

Ans. (1)

Sol. NCERT-XI-33

112. Match **List-I** with **List-II**.

<b>List-I</b>	<b>List-II</b>
A. Spherical	I. Vibrio
B. Rod	II. Cocci
C. Comma	III. Spirilla
D. Spirillum	IV. Bacilli

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

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

Ans. (4)

Sol. NCERT-XI-89

113. Which of the following are characteristic features of Solanaceae family ?

- (a) Flowers are bisexual and actinomorphic
- (b) Calyx have five sepals and are united
- (c) Androecium have five stamens and are epipetalous
- (d) Ovary is inferior

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

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

Ans. (1)

Sol. NCERT-XI-69

114. Select the correct sequence of experiments that led to a gradual understanding of photosynthesis in green plants.

- (1) Absorption spectra of chlorophyll a and b  $\rightarrow$  production of glucose  $\rightarrow$  release of oxygen  $\rightarrow$  role of air
- (2) Role of air  $\rightarrow$  release of oxygen  $\rightarrow$  production of glucose  $\rightarrow$  absorption spectra of chlorophyll a and b
- (3) Release of oxygen  $\rightarrow$  production of glucose  $\rightarrow$  absorption spectra of chlorophyll a and b  $\rightarrow$  role of air
- (4) Production of glucose  $\rightarrow$  role of air  $\rightarrow$  release of oxygen  $\rightarrow$  absorption spectra of chlorophyll a and b

Ans. (2)

Sol. NCERT-XI-134, 135

**115.** The number of action potentials generated by sino-arterial node (SAN) in a healthy human is \_\_\_\_\_ per minute.

- (1) 28 - 30                      (2) 70 - 75  
 (3) 100 - 110                  (4) 120 - 140

**Ans. (2)**

**Sol. NCERT-XI-199**

**116.** How many turns of Calvin cycle are required for the formation of three molecules of glucose ?

- (1) 6            (2) 3            (3) 1            (4) 18

**Ans. (4)**

**Sol. NCERT-XI-144**

For the formation of 1 molecule of glucose 6 turns of calvin cycle are required.

So for the formation of 3 molecules of glucose  
 $\Rightarrow 3 \times 6 = 18$  turns of calvin cycle are required

**117.** Which of the following statements is **incorrect** ?

- (1) Blood coagulates in response to an injury  
 (2) Blood clot consists of fibrins  
 (3) Fibrin is produced from fibrinogen  
 (4) Fibrinogen is produced from fibrin

**Ans. (4)**

**Sol. NCERT-XI-186**

**118.** Match **List-I** with **List-II**.

<b>List-I</b>	<b>List-II</b>
A. Family	I. Sapindales
B. Genus	II. Dicotyledonae
C. Class	III. Anacardiaceae
D. Phylum	IV. Angiospermae
E. Order	V. <i>Mangifera</i>

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

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

**Ans. (4)**

**Sol. NCERT-XI-8**

**119.** Arrange the following taxonomic categories in ascending order.

- (a) Genus                              (b) Class  
 (c) Order                              (d) Phylum  
 (e) Family                            (f) Kingdom  
 (g) Species

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

- (1) (g), (a), (e), (c), (b), (d), (f)  
 (2) (a), (c), (d), (g), (f), (b), (e)  
 (3) (g), (c), (d), (b), (e), (a), (f)  
 (4) (f), (c), (b), (g), (d), (e), (a)

**Ans. (1)**

**Sol. NCERT-XI-8**

**120.** Match **List-I** with **List-II**.

<b>List-I</b>	<b>List-II</b>
A. Marginal placentation	I. <i>Argemone</i>
B. Axile placentation	II. Tomato
C. Parietal placentation	III. <i>Primrose</i>
D. Free central placentation	IV. Pea

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

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

**Ans. (4)**

**Sol. NCERT-XI-65**

**121.** Sphenopsida class belongs to \_\_\_\_\_ .

- (1) bryophytes                      (2) angiosperms  
 (3) gymnosperms                (4) pteridophytes

**Ans. (4)**

**Sol. NCERT-XI-32**

**122.** Which of the following statements regarding photorespiration are correct ?

- (a) Do not occur in C3 plants  
 (b) CO<sub>2</sub> is consumed and O<sub>2</sub> is generated  
 (c) Phosphoglycolate is formed  
 (d) No synthesis of ATP and NADPH

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

- (1) (a) and (d) only                (2) (c) and (d) only  
 (3) (b) and (d) only                (4) (a) and (b) only

**Ans. (2)**

**Sol. NCERT-XI-147**

**123.** Smooth endoplasmic reticulum \_\_\_\_\_

- (1) has ribosomes attached to its surface
- (2) is the major site for the synthesis of lipids
- (3) is actively involved in protein synthesis
- (4) is a site for the synthesis of carbohydrates

**Ans. (2)**

**Sol. NCERT-XI-95**

**124.** Which one of the following statements is **incorrect** ?

- (1)  $\alpha$ -cells of pancreas secrete glucagon
- (2)  $\alpha$ -cells of pancreas secrete insulin
- (3) Glucagon stimulates glycogenolysis
- (4)  $\beta$ -cells of pancreas secrete insulin

**Ans. (2)**

**Sol. NCERT-XI-245**

**125.** Genus represents \_\_\_\_\_

- (1) an individual plant or animal
- (2) a population of plants and animals
- (3) a group of closely related species
- (4) a group of closely related families

**Ans. (3)**

**Sol. NCERT-XI-7**

**126.** Which of the following is **not** a prokaryote ?

- (1) Bacteria
- (2) Blue green algae
- (3) Mycoplasma
- (4) Fungi

**Ans. (4)**

**Sol. NCERT-XI-13, 14, 16**

**127.** Which of the following plant growth regulators promotes internode elongation prior to flowering in cabbage ?

- (1) Abscisic acid
- (2) Gibberellin
- (3) Indole butyric acid
- (4) Ethephon

**Ans. (2)**

**Sol. NCERT-XI-176**

**128.** The correct sequence of adult cell cycle phases is

- (1) G1-G2-S-M
- (2) G1-M-G2-S
- (3) G1-S-G2-M
- (4) S-M-G2-G1

**Ans. (3)**

**Sol. NCERT-XI-121**

**129.** Match **List-I** with **List-II**.

<b>List-I</b>	<b>List-II</b>
A. Fusion of protoplasts between gametes	I. Meiosis
B. Fusion of two nuclei	II. Plasmogamy
C. Generation of haploid spores	III. Karyogamy

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

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

**Ans. (1)**

**Sol. NCERT-XI-17**

**130.** Given below are two statements :

**Statement I :** The class name Reptilia refers to creeping or crawling mode of locomotion.

**Statement II :** All organisms belonging to Reptilia have three chambered heart.

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

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

**Ans. (3)**

**Sol. NCERT-XI-49**

**131.** Given below are two statements :

**Statement I :** Chromosomes are fully condensed at the end of prophase I.

**Statement II :** Meiosis I resembles mitosis.

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

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

**Ans. (3)**

**Sol. NCERT-XI-126**

**132.** Which of the following is **not** a characteristic of chordates ?

- (1) Presence of notochord
- (2) Central nervous system is dorsal
- (3) Absence of gills
- (4) Presence of post anal part (tail)

**Ans. (3)**

**Sol. NCERT-XI-46**

**133.** Length of the stem at time 0 is 20 cm. The arithmetic growth rate is 30 cm per day. What is the length of the stem at the end of the 7<sup>th</sup> day ?

- (1) 50 cm
- (2) 170 cm
- (3) 230 cm
- (4) 460 cm

**Ans. (3)**

**Sol. NCERT-XI-170**

For arithmetic growth  $\Rightarrow L_t = L_0 + rt$

$L_t = ?$  ;  $L_0 = 20$  cm ;  $r = 30$  cm/day ;  $t = 7$  days

So  $L_t = 20 + 30 \times 7 = 20 + 210 = 230$  cm

**134.** Arrange the following elements in descending order of their contribution to percentage weight of the human body.

- (a) Oxygen
- (b) Carbon
- (c) Hydrogen
- (d) Nitrogen

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

- (1) (a), (b), (c), (d)
- (2) (c), (a), (b), (d)
- (3) (b), (c), (d), (a)
- (4) (b), (a), (c), (d)

**Ans. (1)**

**Sol. NCERT-XI-105**

**135.** In frogs, the number of pairs of cranial nerves arising from the brain are \_\_\_\_\_ .

- (1) 6
- (2) 9
- (3) 10
- (4) 12

**Ans. (3)**

**Sol. NCERT-XI-83**

**136.** Which of the following is used as a clot buster?

- (1) Streptokinase
- (2) Penicillin
- (3) Cyclosporin A
- (4) Statins

**Ans. (1)**

**Sol. NCERT-XII-153**

**137.** The inactive form of Bt toxin is converted to the active form in the insect gut \_\_\_\_\_ .

- (1) due to alkaline pH
- (2) due to acidic pH
- (3) by proteases
- (4) by nucleases

**Ans. (1)**

**Sol. NCERT-XII-179**

**138.** Given below are two statements :

**Statement I :** Down's syndrome is caused by the absence of one of the X-chromosomes.

**Statement II :** Turner's syndrome is caused by the presence of an additional copy of the chromosomes.

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

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

**Ans. (2)**

**Sol. NCERT-XII-76**

**139.** Which of the following disease is **not** sexually transmitted ?

- (1) Syphilis
- (2) Tuberculosis
- (3) Gonorrhoea
- (4) Genital warts

**Ans. (2)**

**Sol. NCERT-XII-47**

**140.** Sperm motility is due to \_\_\_\_\_.

- (1) flagellar movement
- (2) ciliary movement
- (3) amoeboid movement
- (4) muscular movement

**Ans. (1)**

**Sol. NCERT-XI-218**

**141.** Natural selection can lead to \_\_\_\_\_.

- (a) stabilisation
- (b) genetic drift
- (c) directional change
- (d) disruption

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

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

**Ans. (2)**

**Sol. NCERT-XII-120**

**142.** The method of directly of injecting a sperm into ovum in assisted reproductive technology is called :

- (1) Gamete intra fallopian transfer (GIFT)
- (2) Zygote intra fallopian transfer (ZIFT)
- (3) Intra cytoplasmic sperm injection (ICSI)
- (4) Embryo transfer (ET)

**Ans. (3)**

**Sol. NCERT-XII-48**

**143.** Which of the following structure is **not** a part of the male reproductive system ?

- (1) Rete testis
- (2) Epididymis
- (3) Vasa efferentia
- (4) Infundibulum

**Ans. (4)**

**Sol. NCERT-XII-29**

**144.** Arrange the following in descending order of number of species in the Amazonian rain forest.

- (a) Plants
- (b) Birds
- (c) Fishes
- (d) Invertebrates
- (e) Mammals

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

- (1) (c) > (b) > (d) > (e) > (a)
- (2) (d) > (a) > (c) > (b) > (e)
- (3) (e) > (b) > (a) > (c) > (d)
- (4) (b) > (a) > (d) > (c) > (e)

**Ans. (2)**

**Sol. NCERT-XII-219**

145. Given below are two statements :

**Statement I :** Ovulation is caused by LH surge leading to rupture of Graafian follicles.

**Statement II :** Graafian follicle remaining after ovulation transform into corpus luteum and secretes large amount of estrogen.

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

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

**Ans. (3)**

**Sol. NCERT-XII-35**

146. Which of the following are primary consumers in a food chain ?

- (1) Parasites
- (2) Predators
- (3) Herbivores
- (4) Carnivores

**Ans. (3)**

**Sol. NCERT-XII-210**

147. A population of diploid organisms is at Hardy-Weinberg equilibrium. If the frequency of allele A is 0.1, the frequency of AA is \_\_\_\_\_.

- (1) 0.01
- (2) 0.02
- (3) 0.10
- (4) 0.99

**Ans. (1)**

**Sol. NCERT-XII-121**

Frequency of allele A = 0.1 = p  
Frequency of AA =  $p^2 = (0.1)^2$   
= 0.01

148. Match **List-I** with **List-II**.

<b>List-I</b>		<b>List-II</b>	
A. Excess growth hormone	I.	Reabsorption of water and electrolytes in kidney	
B. Luteinizing hormone	II.	Contraction of uterus during child birth	
C. Vasopressin	III.	Acromegaly	
D. Oxytocin	IV.	Ovulation	

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

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

**Ans. (2)**

**Sol. NCERT-XI-241, 242**

149. The opening between the right atrium and the right ventricle is guarded by \_\_\_\_\_.

- (1) bicuspid valve
- (2) tricuspid valve
- (3) semilunar valve
- (4) sino-atrial node

**Ans. (2)**

**Sol. NCERT-XI-198**

150. Sponges exchange  $O_2$  with  $CO_2$  by \_\_\_\_\_.

- (1) simple diffusion over their entire body surfaces
- (2) moist cuticle
- (3) tracheal tubes
- (4) gills

**Ans. (1)**

**Sol. NCERT-XI-40**

151. How many theca are present in each lobe of a typical bilobed angiosperm anther ?

- (1) 2
- (2) 6
- (3) 8
- (4) 12

**Ans. (1)**

**Sol. NCERT-XII-5**

**152.** Muscle contraction is initiated by a signal sent by the central nervous system by the release of \_\_\_\_\_.

- (1) acetyl choline
- (2) acetyl coenzyme A
- (3) cyclic guanine monophosphate
- (4) cyclic adenine monophosphate

**Ans. (1)**

**Sol. NCERT-XI-222**

**153.** Which of the following statements about lac-operon is **correct**?

- (1) Gene i is constitutively expressed
- (2) Lactose activates repressor to bind to the operator
- (3) Genes i, z, y and a share single common promoter
- (4) Galactose can act as an inducer of lac operon

**Ans. (1)**

**Sol. NCERT-XII-100**

**154.** Which of the following in female gametophyte of an angiosperm helps in guiding the pollen tube for fertilizing the eggs ?

- (1) Antipodals                      (2) Synergids
- (3) Central cells                 (4) Polar nucleus

**Ans. (2)**

**Sol. NCERT-XII-16**

**155.** Which of the following plant produces non-albuminous seeds ?

- (1) Wheat                          (2) Maize
- (3) Barley                         (4) Pea

**Ans. (4)**

**Sol. NCERT-XII-20**

**156.** If the diploid chromosome number of typical angiosperm is 36, what would be the chromosome number in its endosperm ?

- (1) 18      (2) 36      (3) 54      (4) 72

**Ans. (3)**

**Sol. XII-Module**

**157.** Which of the following statements about the reabsorption process in Henle's loop are **correct**?

- (a) The descending limb of Henle's loop is permeable to water but almost impermeable to electrolytes.
- (b) Urine gets concentrated in Henle's loop.
- (c) Reabsorption of Na<sup>+</sup> and water takes place in Henle's loop.
- (d) Active or passive transport of electrolytes occurs in the ascending limb of Henle's loop.

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

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

**Ans. (4)**

**Sol. NCERT-XI-209**

**158.** Which of the following is the **correct** order of arrangement of vertebrate column from the head to toe?

- (1) Cervical vertebra, thoracic vertebra, sacrum, lumbar vertebra
- (2) Sacrum, lumbar vertebra, thoracic vertebra, cervical vertebra
- (3) Cervical vertebra, lumbar vertebra, thoracic vertebra, sacrum
- (4) Cervical vertebra, thoracic vertebra, lumbar vertebra, sacrum

**Ans. (4)**

**Sol. NCERT-XI-225**

**159.** Which of the following is **not** evidence for evolution?

- (1) Convergent evolution of traits like wings of birds and butterflies
- (2) Paleontological evidence from fossil records
- (3) Embryological support for evolution as proposed by Ernst Haeckel
- (4) Divergent evolution of anatomical structures such as forelimbs

**Ans. (3)**

**Sol. NCERT-XII-113-115**

160. Given below are two statements :

**Statement I:** Modern *Homo sapiens* arose in Australia and moved across continents.

**Statement II:** *Homo sapiens* arose around 75000 to 10000 years ago.

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

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

Ans. (4)

Sol. NCERT-XII-125

161. Consider a population of 10 million cells. Given the per-capita birth rate of 0.002 (per unit time) and the per-capita death rate of 0.002 (per unit time), the expected number of cells after 10 generations is \_\_\_\_\_.

- (1) 1 million
- (2) 5 million
- (3) 10 million
- (4) 100 million

Ans. (3)

Sol. NCERT-XII-193

$$\begin{aligned}r &= b-d \\r &= 0.002 - 0.002 \\r &= 0 \\N_t &= N_0 e^{rt} \\ \text{Here } t &= 10 \text{ generations} \\N_t &= N_0 e^{0 \times 10} \\N_t &= N_0 e^0 \\ \text{Here } N_0 &= 10 \text{ million} \\N_t &= 10 \text{ million}\end{aligned}$$

162. During PCR, primers bind to the DNA strands in the \_\_\_\_\_ step.

- (1) denaturation
- (2) extension
- (3) annealing
- (4) ligation

Ans. (3)

Sol. NCERT-XII-172

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

**Assertion A:** The logistic growth model of populations is considered more realistic than the exponential growth model.

**Reason R:** Resources are finite.

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

- (1) Both **A** and **R** are correct and **R** is the correct explanation of **A**
- (2) Both **A** and **R** are correct but **R** is not the correct explanation of **A**
- (3) **A** is correct but **R** is not correct
- (4) **A** is not correct but **R** is correct

Ans. (1)

Sol. NCERT-XII-195

164. Adaptive radiation in placental mammals and Australian Marsupials leading to similarity between distant species is an example of \_\_\_\_\_.

- (1) divergent evolution
- (2) convergent evolution
- (3) founder effect
- (4) genetic drift

Ans. (2)

Sol. NCERT-XII-117, 118

165. Which of the following are secondary lymphoid organs ?

- (a) Bone marrow
- (b) Tonsils
- (c) Spleen
- (d) Thymus

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

- (1) (a) and (b) only
- (2) (b) and (c) only
- (3) (b) and (d) only
- (4) (a) and (d) only

Ans. (2)

Sol. NCERT-XII-138

**166.** Which of the following hormone is **not** secreted by human placenta ?

- (1) hCG (2) Estrogen  
(3) Progesterone (4) LH

**Ans. (4)**

**Sol. NCERT-XII-37**

**167.** Which of the following enzymes synthesizes precursor mRNA ?

- (1) RNA polymerase I (2) RNA polymerase II  
(3) RNA polymerase III (4) DNA polymerase

**Ans. (2)**

**Sol. NCERT-XII-95**

**168.** Given below are two statements :

**Statement I :** Plasmids are autonomously replicating DNA.

**Statement II :** Plasmids are extrachromosomal DNA.

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

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

**Ans. (1)**

**Sol. NCERT-XII-168**

**169.** For a person with blood group 'O', which of the following is **not** a possible combination of parents' blood group genotypes ?

- (1) Father:  $I^A i$  and Mother:  $I^B i$   
(2) Father:  $I^A i$  and Mother:  $I^A i$   
(3) Father:  $I^B i$  and Mother:  $I^B i$   
(4) Father:  $I^A I^B$  and Mother:  $I^A i$

**Ans. (4)**

**Sol. NCERT-XII-61**

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

**Assertion A :** Forelimbs of human and bats are homologous.

**Reason R :** Forelimbs of humans and bats have similar anatomical structure.

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

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

**Ans. (1)**

**Sol. NCERT-XII-114, 115**

**171.** Colostrum, secreted by mother during initial days of lactation, is abundant in \_\_\_\_\_.

- (1) IgG (2) IgM  
(3) IgA (4) IgD

**Ans. (3)**

**Sol. NCERT-XII-136**

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

**Assertion A :** Abingdon tortoise in Galapagos islands became extinct within a decade after goats were introduced.

**Reason R :** Goats were more efficient at browsing than Abingdon tortoise.

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

- (1) Both **A** and **R** are correct and **R** is the correct explanation of **A**  
(2) Both **A** and **R** are correct but **R** is not the correct explanation of **A**  
(3) **A** is correct but **R** is not correct  
(4) **A** is not correct but **R** is correct

**Ans. (1)**

**Sol. NCERT-XII-199**

173. The covering of ovum at ovulation is \_\_\_\_\_.

- (1) endometrium
- (2) zona radiata
- (3) zona pellucida
- (4) chorion

Ans. (3)

Sol. NCERT-XII-33

174. Match List-I with List-II.

List-I	List-II
A. Both species are harmed and the other is benefited	I. Predation
B. One species is harmed and the other has no effect	II. Mutualism
C. Both species are benefited	III. Competition
D. One is benefited while the other has no effect	IV. Commensalism

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

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

Ans. (4)

Sol. NCERT-XII-197

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

**Assertion A** : In an experiment, Mendel observed that the F<sub>1</sub> progeny plants are all tall and none are dwarf.

**Reason R** : Stem height is a contrasting trait, with tall being dominant and dwarf being recessive.

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

- (1) Both **A** and **R** are correct and **R** is the correct explanation of **A**
- (2) Both **A** and **R** are correct but **R** is not the correct explanation of **A**
- (3) **A** is correct but **R** is not correct
- (4) **A** is not correct but **R** is correct

Ans. (1)

Sol. NCERT-XII-54

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

**Assertion A** : In recombinant DNA technology, lysozyme is used for disrupting bacterial cells while cellulase is for plant cells.

**Reason R** : Isolation of genetic material needs disruption of cells.

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

- (1) Both **A** and **R** are correct and **R** is the correct explanation of **A**
- (2) Both **A** and **R** are correct but **R** is not the correct explanation of **A**
- (3) **A** is correct but **R** is not correct
- (4) **A** is not correct but **R** is correct

Ans. (1)

Sol. NCERT-XII-171

**177.** Which of the following is used as an effective sedative and painkiller for treating post-surgery patients ?

- (1) Interferon                      (2) Antibiotics  
(3) Morphine                        (4) Anti-retroviral drugs

**Ans. (3)**

**Sol. NCERT-XII-143**

**178.** Which of the following statements are **correct** ?

- (a) Energy flow from producers to consumers is unidirectional  
(b) Energy pyramid can never be inverted  
(c) Transfer of energy follows the 1% law

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

- (1) (a), (b) and (c)                      (2) (a) and (b) only  
(3) (a) and (c) only                      (4) (b) and (c) only

**Ans. (2)**

**Sol. NCERT-XII-213**

**179.** Which of the following statements is **correct** about *Plasmodium*?

- (1) Reproduces sexually in liver cells  
(2) Reproduces sexually in RBCs  
(3) Gametocytes develop in mosquito gut  
(4) Fertilization takes place in mosquito gut

**Ans. (4)**

**Sol. NCERT-XII-131, 132**

**180.** Match **List-I** with **List-II**.

<b>List-I</b>	<b>List-II</b>
A. Transformation	I. Restriction enzyme
B. Cloning site	II. Transfer DNA to host bacteria
C. Selection	III. Replication
D. Ori	IV. Antibiotic

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

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

**Ans. (1)**

**Sol. NCERT-XII-169, 170**