

ZOOLOGY

1. **The true xerophyte Nerium tides over the dry conditions**
 - a) By lying in the form of seeds
 - b) By storing water in different parts of the body
 - c) By the presence of the body
 - d) By the presence of thick cuticle, sunken, hypostomatous stomata, multiple epidermis etc
2. **Scientific name of which of the following set of animals are 'tautonyms'**
I) Spotted deer II) Common Indian Cobra III) Black buck IV) Snow leopard
 - a) I and II only b) I, III and IV only c) I, II and IV only d) I, II, III and IV
3. **Following are statement regarding organisms sharing spherical symmetry**
 1. They are spherical in shape
 2. Organisms exhibiting spherical symmetry are planktonic forms & rare
 3. Generally they are terrestrial
 4. They have only dorsal and ventral surface
 - a) 1&2 b) 2&3 c) 1 & 3 d) 1, 2 and 3
4. **Stinging animals were included in the phylum**
 - a) Porifera b) Cnidaria c) Nematoda d) Annelida
5. **Study the following statements regarding the polychaetes**
 - I. Gonoducts are absent
 - II. Head is distinct with eyes, tentacles and pedipalps.
 - III. Clitellum is present

The correct combination is

 - a. Only I & II are correct
 - b. Only II & III are correct
 - c. Only I & III are correct
 - d. All are correct
6. **Vermicompost is formed by**
 - a) Flatworms b) Earthworms c) Round worms d) Blind worms
7. **Match the following and choose the correct combination.**

List- 1	List- II
A. Trilobita	I. Millipedes
B. Merostomata	II. Centipedes
C. Arachnida	III. Astacus
D. Crustacea	IV Sarcophytes
E. Chilopoda	V Eurypteris
F. Diplopoda	VI. Dalmanites

	A	B	C	D	E	F
a.	V	III	II	I	IV	VI
b)	VI	V	IV	III	II	I
c)	I	III	II	VI	IV	V
d)	II	VI	V	I	IV	III

8. Study the following statements about reptiles.

I. Cranial nerves are 12 pairs except in snakes.

II. Male animals possess copulatory organs except in crocodiles.

III. Mesonephric kidneys are present.

IV. These are uricotelic animals.

Which of the above are correct?

1) All except I 2) All except II & III

3) All except III 4) All except IV

9. The number of air sacs present in a bird is

a) 3 b) 6 c) 9 d) 18

10. 'Largest animal in world that feed on smallest planktons is the

a) Dolphin b) Killer whale c) Blue whale d) Sperm whale

BOTANY

1. Motile structures are

I. Cilia II. Flagella III. Fimbriae IV Pili

a)I,II b)I,III c)II,III d)1,IV

2. Arrange the chemical compounds formed in dark reaction on the basis of their formation from beginning to end of it.

1. 1.fructose-1,6-diphosphate
2. Phosphoglyceric acid
3. Dihydroxy acetone phosphate
4. Ribulose biphosphate

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

3. Match the following

LIST-1

- A.Agranal chloroplast
b.RUBP carboxylase oxygenase
c.Photsynthesis in both

d.Cyclic photophosphorylation

LIST-2

- i.C3 plants
ii.C4 plants
iii.Photosystem-I Mesophyll & bundlesheathcells
iv.bundle sheath cells
v.hotosystem-2

	A	B	C	D
a)	i	iv	iii	ii
b)	ii	v	iv	i
c)	iv	i	ii	iii
d)	iii	v	i	iv

4. Generally in laboratory , in the culture of rhizopus there is no formation of sygospore because

- a) There is deficiency of oxygen
- b) There is deficiency of light
- c) Absence of (+) or (-) strains in the mycelium
- d) Presence of (+) or (-) strains in the mycelium

5. Root does not show

- a) Distinction of primary and secondary roots
- b) Distinction of nodes and internodes
- c) Tertiary roots and rootlets
- d) Endogenous branches

6. Select the correct combinations regarding poaceae

Plant	Part	Use
I) <i>Saccharum officinarum</i> -	Sap of stem	- Jaggery
II) <i>Pennisetum typhoides</i> -	grains	- Food
III) <i>Cymbopogon citratus</i>	- Stems	- Sugar

IV) *Zea mays*

a) I,II,III

b) I,II,IV

- Leaves

- Fodder

c) II,III,IV

d) I,III,IV

7. Endosperm in angiosperms is formed from

- a) Female gametophytic tissue
- b) Product of syngamy
- c) Product of triple fusion
- d) Remnant of nucellus

8. Agar - Agar is

I) Polysaccharide

II) Extracted from red algae

III) Used as ingredient of semi- solid culture media

a) I only correct

b) II and III only

c) I and II only correct

d) I, II, III are correct

9. Unicellular organism used by humans in soups and sausages during 1st world war

a). Spirulina

b) Chlorella

c) Candida utilis

d) Saccharomyces cerevisiae.

10. It shows correct chronological order of the events during callus culture

- a). Explant → cell division → callus → addition of cytokinin → cell acquire meristematic property
- b) Callus → Explant → cell division → addition of cytokinin → cell acquire meristematic property
- c) callus → cell division → Explant → addition of cytokinin → cell acquire meristematic property
- d) Explant → callus → cell division → addition of cytokinin → cell acquire meristematic property