

## 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.**

<b>List- 1</b>	<b>List- II</b>
<b>A. Trilobita</b>	<b>I. Millipedes</b>
<b>B. Merostomata</b>	<b>II. Centipedes</b>
<b>C. Arachnida</b>	<b>III. Astacus</b>
<b>D. Crustacea</b>	<b>IV. Sarcoptes</b>
<b>E. Chilopoda</b>	<b>V. Eurypterus</b>
<b>F. Diplopoda</b>	<b>VI. Dalmanites</b>

	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. 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. Photosynthesis in both
- d. Cyclic photophosphorylation

**LIST-2**

- i. C3 plants
- ii. C4 plants
- iii. Photosystem-I Mesophyll & bundle sheath cells
- iv. bundle sheath cells
- v. photosystem-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 zygosporangium 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*

- Leaves - Fodder

a) I,II,III

b)I,II,IV

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 sauseges during 1<sup>st</sup> 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