

ZOOLOGY

1. The following are the some of the parts of alimentary canal. Arrange them in a sequence from anterior region to posterior region to

A)Claca B)Oesophagus C)Gizzard D)Crop E)Proventriculus
F)Small intestine

a)B-D-E-C-F-A b)A-F-C-E-D-B c)B-E-D-C-A-F d)A-C-F-E-B-D

2. Which of the following pairs are correctly matched?

A. Crocodile- 4-Chambered heart

B. Sea Urchin- Parapodia

C. Obelia– Metagenesis

D. Lemur– Thecodont

- a) Only A and B
- b) A, C and D
- c) B, C and D
- d) Only A and D

3. Note the following:

(a) Lymphocytes (b) Trophocytes (c) Monocytes (d) Trophocytes
(e) Leucocytes (f) Oenocytes (g) Urate cells

Which of the above are fat cells in Peripanata ?

(a) a, c, e and h (b) b, d, f and g (c) c, e, f and g (d) a, c, e and f

4. Match the following:

List-I

(A) Sandwich ELISA

(B) QRS Complex

(C) Allograft

(D) CT Scan

List-II

(I) Three dimensional image

(II) Substrate linked antibody

(III) Ventricular depolarisation

(IV) Transplantation between non-identical individual

The correct match is :

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

5. The plasmid PBR 322 used In biotechnology is :

(a) Yeast (b) M32phage (c) Parasite (d) Cloning vehicle

- 6. In filarial worm, sausage shaped larva is formed after**
- 1st moulting
 - 2nd moulting
 - exsheating of microfilaria
 - 3rd moulting
- 7. Arrange the following organisms in ascending order based on the number of planes in which they can produce antimeres**
- A. Starfish B. Sea anemone C. Jellyfish D. Silverfish**
- D-B-A-C
 - D-B-A-C
 - D-B-C-A
 - D-A-B-C
- 8. Carbohydrates are commonly found as starch in plant storage organs. Which of the following five properties of starch (a - e) make it useful as a storage material?**
- a. Easily translocated b. Chemical non-reactive c. Easily digested by animals**
- d. Osmotically inactive e. Synthesized during photosynthesis**
- The useful properties are:**
- Both a & e
 - Both b & c
 - Both b & d
 - a, c & e
- 9. Following are the statements about BOD**
- BOD is the “water purity index”
 - A high BOD indicates that the levels of Do are increasing
 - It is the amount of O₂ consumed by arobic bacteria for the decomposition of organic matter
- All are true
 - Only 1 &2 are true
 - Only 2&3 are true
 - Only 3&1 are true
- 10. Sand dollar is**
- Echinodiscus
 - Salmacis
 - Cylpeaster
 - Echinocardium

Key :

| | | | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|
| 1.A | 2.D | 3.B | 4.D | 5.D | 6.C | 7.A | 8.C | 9.A | 10.A |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|

BOTANY

1. Match the following

List-1

- a. Pericycle
- b. General cortex
- c. Conjunction tissue
- d. Protoxylem

List-2

- i) First formed primary xylem
- ii) Ground tissue
- iii) Lateral conduction
- iv) Lateral roots
- v) Later formed primary xylem

The correct match is

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

2. Function of companion cells is

- a) provide energy to sieve elements for active transport
- b) loading of sucrose into sieve elements by passive transport
- c) providing water to phloem
- d) loading of sucrose into sieve element

3. The pigment responsible for the colour of brown algae is

- a) Chlorophyll
- b) Fucoxanthin
- c) Algin
- d) Laminarin

4. A false fruit is that of

- a) Mango
 - b) Cashewnut
 - c) Apple
 - d) Brinjal
- Absence of nucleus

5.

List-I

Form of algae

- A) Unicellular
- B) Colonial
- C) Filamentous
- D) Massive plantbodies

List-II

Example

- 1) Chlamydomonas
- 2) Volvox
- 3) Ulothrix
- 4) Kelps
- 5) Spirogyra

The correct match is

| | A | B | C | D |
|----|---|---|---|---|
| a. | 1 | 3 | 4 | 2 |
| b. | 1 | 2 | 3 | 4 |
| c. | 1 | 3 | 5 | 4 |
| d. | 5 | 2 | 3 | 1 |

6. **A): Cycas exhibits coralloid roots**

(R): Some adventitious roots of cycas grow aerially and look nlike corals

- a) Both (A) and (R) are true and (R) is correct explanation of (A)
- b) Both (A) and (R) are true and (R) is not correct explanation of (A)
- c) is true but (R) is false
- d) Both (A) and (R) are false

7. **Identify the correct statement with regard to wood**

- a) Alburnum is dark in colour
- b) Thickness of sap wood remains constant
- c) Thickness of heart wood increases with increase in age
- d) As time passes on sap wood gradually changes to heart wood

8. **Phenomenon of preparing food from CO₂ and water in the presence of sunlight is called**

- a) chemotrophism
- b) orobanche
- c) autotrophism
- d) symbiosis

9. **Read the table**

| Reaction | Grana | stroma |
|---------------------------------|-------|--------|
| a. oxidation of water | V | X |
| b. carboxylation | V | X |
| c. light reaction | V | X |
| d. reduction of CO ₂ | V | X |

(v=occurs

(X=do not occur

Which of the above 2 reactions are shown correct places of occurrence

- a).i&iii
- b).ii&iii
- c).iii&iv
- d).ii&iv

10. **This is necessary for separation of sub units of ribosomes**

- a.IF1
- b.IF2
- c.IF1 & IF2
- d.IF3

KEY:

1.C 2.A 3.B 4.C 5. 6.A 7. 8.C 9.A 10.D