

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?
- Easily translocated
 - Chemical non-reactive
 - Easily digested by animals
 - Osmotically inactive
 - 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 arobie 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
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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 prersence 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
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