

## 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 O<sub>2</sub> 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 :**

<b>1.A</b>	<b>2.D</b>	<b>3.B</b>	<b>4.D</b>	<b>5.D</b>	<b>6.C</b>	<b>7.A</b>	<b>8.C</b>	<b>9.A</b>	<b>10 .A</b>
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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 aurally 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 CO<sub>2</sub> 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 <sub>2</sub>	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