

# **BIOLOGY**

# BOOKS - FULL MARKS BIOLOGY (TAMIL ENGLISH)

## **SAMPLE PAPER - 16**

**Bio Botany Part I** 

1. The size of TMV is

A. 
$$300 \times 20 \text{ mm}$$

B. 
$$300 imes 200 \mu m$$

$$\text{C.}~300\times20nm$$

D. 
$$300 imes 20 ext{\AA}$$

### **Answer: C**



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2. Respiratory roots are found in .....

A. Sweet potato

- B. Bruguiera
- C. Mango
- D. Dahlia



- 3. The term biosystematics was introduced by
  - A. Bauhin
  - B. Camp & Gilly

- C. Cronquist
- D. Smith



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**4.** Which organelle has a single unit membrane?

- A. Ribosomes
- B. Glyoxysomes

- C. Polysomes
- D. Nucleus



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# 5. Golgi complex plays a major role in

- A. post translational modification of proteins and glycosidation of lipids
- B. translation of proteins

- C. Transcription of proteins
- D. Synthesis of lipid

**Answer: A** 



- **6.** Interfascircular cambium originates from
- • • • • • • • •
  - A. Procambium
  - B. Vascular cambium

- C. Pith
- D. Medullary rays

### **Answer: D**



- **7.** ABA stands for ..........
  - A. Abscisic Acid
  - B. Ascorbic Acid
  - C. Acetyl Butyric Acid

D. Acetic Acid

**Answer: A** 



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**8.** Identify true statement regarding light reaction of photosynthesis

A. Splitting of water molecule is associate with PS I

B. PS I and PS II involved in the formation of

$$NDPH + H^+$$

C. The reaction center of PS I is Chlorophyll

a with absorption peak at 680 nm

D. The reaction center of PS II is Chlorophyll

a with absorption peak at 700 nm.

### **Answer: D**



### Bio Botany Part li

**1.** Distinguish between Isogamy and Oogamy with example.



**2.** What are the parts that constitute the typical leaf?



<b>3.</b> Cronquist classification is a failure. Justify
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4. What is polymerization?
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5. What is " bundle cap " or " hard bast"?
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6. How did blackman classify respiration?

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# Bio Botany Part Iii

1. Write a simple note on Oomycetes.



**2.** Differentiate between monopodial and sympodial branching.



3. What is giant chromosome?



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4. Describe the structure of stomata.



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5. What is Re-differentiation?



# **Bio Botany Part Iv**

**1.** Draw a flow chart illustrating stem modifications.



**2.** Explain in detail about the various stages of Prophase I.



3. Draw the structure of hydathode



**4.** Explain the Calvin Cycle (Flow chart only).



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Bio Zoology Part I

<b>1.</b> The secor	ndary host of Taenia is
A. Snail	
B. Pig	
C. Man	
D. Dog	
Answer: B	

2. The study of tissues is known as

A. Physiology

B. Ecology

C. Histology

D. Anatomy

**Answer: C** 



### 3. Match the List I and List II

List I (Common Name) List II (Genus)

- 1. Dog (i) Bos
- 2. Cat (ii) Canis
- 3. Lion (iii) Felis
- 4. Cattle (iv) Leo

#### **Answer: B**



- 4. AMS stands for ......
  - A. Artificial Mountain Sickness
  - B. Acute Mountain Sickness
  - C. Allergy Metabolic Sickness
  - D. Allergy Mountain Sickness



- **5.** Which of the following is an correct statement?
  - A. Contraction of both atria lasts for around 0.7-1.0 sec.
  - B. The normal QRS complex lasts for 0.06 0.09 sec.
  - C. The ST segment lasts for 0.06 sec.
  - D. The time for an impulse to travel from the atria to the ventricles is around 0.12

-0.5 sec

### **Answer: B**



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**6.** Which of the following is an incorrect statement?

A. Muscle contraction is initiated by the signal from CNS.

B. In isotonic contraction the length of the musele changes but the tension remains constant.

C. A single glycogen molecule may contain 8000 glucose units compared to that of 5000 individual glucose molecules.

D. The lack of myoglobin gives pale colour to the fibres, so they are termed as white muscle fibres.

### Answer: C

7. Which one protects the lungs?

A. Ribs

B. Vertebral column

C. Sternum

D. All of the above

**Answer: D** 



8. Nerve related to diaphragm is

A. Trigeminal

B. Vagus

C. Glossopharyngeal

D. Phrenic

**Answer: D** 



# Bio Zoology Part Ii

1. What are Threatened species?



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**2.** Who is author of 'fall of sparrow' and explain it?



**3.** Distinguish between Agnatha and Gnathostomata.



**4.** Draw the diagram of Rana hexadactlya - Brain dorsal view .



**5.** Who discovered "Helicobacter pylori".



6. Explain the bones that form the skull.



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# Bio Zoology Part Iii

1. Define:-

Rheumatoid arthritis



**2.** Write the classification of Periplaneta americana.



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3. How does rigor mortis happen?



**4.** Draw a neat labeled diagram of human liver and pancrease.



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5. Define - oxytocin.



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**Bio Zoology Part Iv** 

**1.** Describe the excretory system of "Periplaneta americana".



**2.** Draw the the structure of Blood Vessel - Large Vein.



**3.** What is muscle contraction and what are the types of muscle contraction?



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**4.** Describe the structures of olfactory receptors.

