

Tsi11Bio

Tenkasi District  
Common Half Yearly Examination - December 2023



08-01-2024

Standard 11

Time Allowed: 3.00 Hours

**BIOLOGY**

Maximum Marks: 70

**PART - I [BIO-BOTANY]**  
**Section - I**

**Marks: 35**

- (i) Answer all the questions.  
(ii) Choose the most appropriate answer from the given four alternatives and write the option code and the corresponding answer: **8×1=8**

- 1) In which phase thickening and differentiation takes place?
  - a) Maturation phase
  - b) Formative phase
  - c) Elongation phase
  - d) Cellular phase
- 2) How many ATP molecules are formed during the complete oxidation of 3 molecules of pyruvic acid
  - a) 12
  - b) 13
  - c) 14
  - d) 15
- 3) Nitrogenase enzyme is regulated by
  - a) Zn
  - b) Mg
  - c) Mo
  - d) S
- 4) The plant which transpires only by cuticle
  - a) Banana
  - b) Coconut
  - c) Oputia
  - d) Paddy
- 5) Bottle cork is derived from
  - a) Phellem
  - b) Phellogen
  - c) Vascular Cambium
  - d) Xylem
- 6) In Gymnosperms the Sieve cells are controlled by
  - a) Nearby Sieve tubes
  - b) Phloem parenchyma cells
  - c) Nucleus of the companion cells
  - d) Nucleus of Albuminous cells
- 7) Proteins perform many physiological functions. For example some functions as enzymes. One of the following represents an additional function that some proteins discharge.
  - a) antibiotics
  - b) pigment conferring colour to skin
  - c) Pigments making colours of flowers
  - d) Hormones
- 8) Centrometer is needed for
  - a) Transduction
  - b) Crossing over
  - c) Cytokinesis
  - d) to move the chromosomes towards opposite poles

**Section - II**

- II. Answer any four from the following:**

**4×2=8**

- 9) Write the properties of a leaf.
- 10) Write the demerits of five kingdom classification.
- 11) What is Pycnoxylic?
- 12) What is Basal Placentation?
- 13) Mention any two bacterial diseases and their causing organisms.
- 14) Write about the general characteristics of Lichens.

**Section - III**

- III. Answer any three from the following: Question 19 is compulsory. 3×3=9**

- 15) Write any three economically important plants (with binomial names) and their uses.
- 16) Write the physiological effects of cytokinins.
- 17) Respiratory quiescent of succulent plants are zero. Why?
- 18) A tree is believed to be releasing oxygen during night time. Do you believe the truthfulness of this statement? Justify your answer by giving reasons.
- 19) Plant Photosynthesis and Bacterial photosynthesis-differentiate.

**Section - IV**

- IV. Answer all the following:**

**2×5=10**

- 20) Explain the botanical description of Datura metal  
(OR)

Write the procedure of gram staining process.

- 21) Draw the various phases of Kreb's cycle.  
(OR)

Differentiate C3 and C4 cycle.

Kindly send me your answer keys to us - padasalai.net@gmail.com

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**PART - II [BIO-ZOOLOGY]**

Marks: 35

**Section - A**

8×1=8

**I. Choose the correct answer:**

- 1) What type of fibres are found in connective tissue matrix?
  - a) Collagen
  - b) Areolar
  - c) Cartilage
  - d) Tubular
- 2) Kidney of frog is
  - a) Archinephros
  - b) Pronephros
  - c) Mesonephros
  - d) Metanephros
- 3) The sphincter of oddi guards
  - a) Hepato pancreatic duct
  - b) Common bile duct
  - c) Pancreatic duct
  - d) Cystic duct
- 4) The end product of ornithine cycle is
  - a) Carbon di-oxide
  - b) Uric acid
  - c) Urea
  - d) Ammonia

**5) Make the correct pairs:****Column I**

- P) Tidal volume  
 Q) Residual volume  
 R) Expiratory volume  
 S) Inspiratory volume  
 a) P-ii, Q-iv, R-i, S-iii  
 c) P-ii, Q-iv, R-iii, S-i

**Column II**

- i) 1000 to 1100 ml  
 ii) 500 ml  
 iii) 2500 to 3000 ml  
 iv) 1100 to 1200 ml

- b) P-iii, Q-ii, R-iv, S-i  
 d) P-iii, Q-iv, R-i, S-ii

- 6) **Assertion (A)** : Nuptial flight is a unique flight taken the queen bee followed by several drones.

**Reason (R)** : The queen bee produces a chemical substances called pheromone. The drones in that area are attracted to the pheromone and then mating takes places.

- a) Assertion and Reason is correct but not related.
  - b) Assertion and Reason is correct and related.
  - c) Both A and R is false.
  - d) Assertion is true but Reason is false.
- 7) Serum calcium level is regulated by  
 a) Thyroxine      b) FSH      c) Pancreas      d) Thyroid and Parathyroid
- 8) Isinglass is used in  
 a) Wines preparation      b) Clearing of wines  
 c) Distillation of wines      d) Preservation of wines

**Section - B****II. Answer any four of the following questions:**

4×2=8

- 9) Differentiate between white adipose tissue from brown adipose tissue.
- 10) Distinguish between open and closed circulation.
- 11) Pleasant smell of food urged Ravi to rush the Kitchen Name the parts of brain involved in the identification of food and emotional response to odour.
- 12) Define cross breeding.
- 13) Differentiate between Probiotic bacteria and Pathogenic bacteria.
- 14) Write the Peculiar character of Duck.

**Section - C****III. Answer any three of the following questions:**

3×3=9

**[Question No. 19 is compulsory]**

- 15) Why are villi present in the intestine and not in the stomach?
- 16) What is the effect of aldosterone on kidney and where is it produced?
- 17) What are the benefits of regular exercise?
- 18) Mention the advantages of MOET.
- 19) Pineal gland is an endocrine gland, write its role.

**Section - D****IV. Answer all the questions:**

2×5=10

- 20) a) Explain the composition of blood.  
 (OR)  
 b) What is the structural and functional unit of kidney? Draw the structure and describe it.
- 21) a) Which is the largest gland in the human body? Write its functions.  
 (OR)  
 b) Explain the refractive errors of the eye.