

## Biology Sample Papers for Class 10 ICSE

### General Instructions:

- The total marks of the paper is 80.
- It consists of two sections .
- Section 1: All questions are to be answered.
- Section 2. Internal choices are given
- Marks are allotted to each questions.

### SECTION 1 [40 marks]

#### Question 1

#### a) Give one word answer for the following. [5 Mark]

1. The protective membrane of the brain termed biologically.
2. The retina containing photosensitive pigment in the rod cells.
3. The phenomenon by which living or dead plant cells absorb water by surface attraction.
4. The study of the human population of a region statistically.
5. The phase of cardiac cycle in which the auricles contract.

#### b) State True or False for the following statements . If False , correct the statement by changing the first or the last word only. [5 Mark]

1. Interphase is the resting stage in mitosis.
2. All the cells of the plants undergo photosynthesis.
3. Cerebellum controls all the voluntary actions of the body.
4. Chemicals applied to spots and places to kill harmful micro-organisms are called disinfectants.
5. Both endocrine and exocrine functions are carried out by the pituitary gland.

#### c) State the main function of the following. [5 Mark]

1. Lymphocytes
2. Hydathodes
3. Chordae tendinae
4. Beta cells of pancreas

5. Corpus luteum
6. Eustachian tube

**d) Give one point of difference between the following pairs on the basis of what is indicated in the brackets. [5 Mark]**

1. Cerebrum and spinal cord (arrangement of cytons and axons of neurons)
2. Turgidity and flaccidity (effect on cytoplasm)
3. Tubectomy and Vasectomy (part of reproductive system cut and ligated)
4. Prostate gland and Cowper's gland (the nature of secretion)
5. Prophase and metaphase (arrangement of chromosomes)
6. Sensory and Motor nerve (Direction of nerve impulse)

**e) Give the exact location of the following.[5 Mark]**

1. Lenticels
2. Prostate Gland
3. Thyroid Gland
4. Centrosome
5. Mitral Valve
6. Chlorophyll

**f) Explain the following terms. [5 Mark]**

1. Genetic counselling
2. Identical twins
3. Variation
4. Transpiration
5. Hypermetropia
6. Tubectomy

**(g) Explain the following abbreviations: [5 Mark]**

- (1) UNICEF
- (2) DNA
- (3) IUD
- (4) DPD
- (5) NADP.

**(h) Answer the following questions. [5 Mark]**



- (1) Draw a neat labeled diagram of the experimental set up to show the process of photosynthesis.
- (2) Differentiate between respiration and photosynthesis by giving example of each.

## SECTION 2 [40 marks]

### Question 2

- (a) i) Draw a well labelled diagram of the vertical section of the mammalian brain.
- ii) 1. Which part of the brain is the seat of body temperature regulation?  
2. Name the part of the brain which transmits nerve impulse.
- iii) Name the part of the brain responsible for sense of smell and mental function of intelligence and memory. [5 Mark]

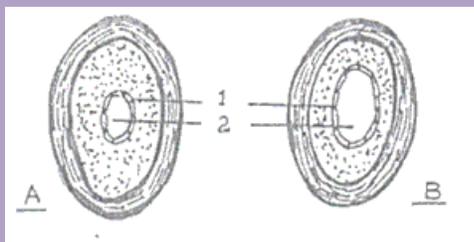
or, b) Explain

- i) Explain the term 'Interphase'.
- ii) Expand the following biological abbreviations: FSH and LTH
- iii) State the exact location of each of the following structures:
- 1) Blind Spot
  - 2) Tympanic Membrane
  - 3) Ureter
  - 4) Spleen

### Question 3

- a) i) Write three adaptations found in plants to favor the process of the photosynthesis.
- ii) On coming out of a dark room why does one feel blinded?
- iii) How the rate of transpiration is affected on:
1. A windy day
  2. A foggy day [5 Mark]

or, b) The diagram below shows the cross section of two kinds of blood vessels.



*cross section of two kinds of blood vessels*

- i) Identify the blood vessels a and b . Give reason to support your answer.
- ii) Name the parts numbered 1 and 2.
- iii) When does the heart produce 'lubb' and 'dup' sounds?
- iv) Name the blood vessel that :
  1. Begin s and ends in capillaries.
  2. Supplies blood to the walls of the heart.

#### **Question 4**

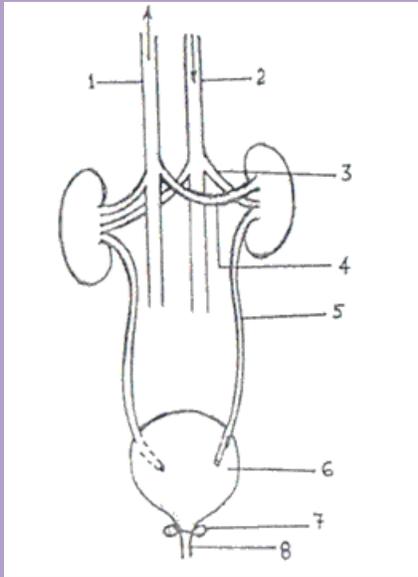
- a) i) Draw a diagram to display the vertical view of human female reproductive system and label the following parts in the diagram: 1. Ureter 2.Ovary 3.Funnel of fallopian tube 4.Urethra.
- ii) What happens to uterus if fertilization takes place? And what happens to uterus if fertilization does not takes place? **[5 Mark]**

#### **b) Answer for the following briefly:**

- i) Marine fish burst when thrown under tap water.
- ii) People living in hilly regions usually suffer from simple goiter.
- iii) During the day transpiration and photosynthesis are interlinked. **[5 Mark]**

#### **Question 5**

- a) The diagram below shows the excretory system of a human being. Study and then answer the questions that follow:



*excretory system of a human being*

- i) Name the parts labeled 1 to 8.
- ii) Give the main function of the parts labeled 5,6,7 and 8.
- iii) Name the endocrine gland which could be added in the diagram and state its location and position [5 Mark]

**b) Differentiate between the following:**

- i) Genotype and Phenotype
- ii) Chromosome and Chromatid
- iii) Karyokinesis and Cytokinesis
- iv) Hormone and Enzyme
- v) Renal arterial blood and Renal venous blood. [5 Mark]

**Question 6**

- a) i) What is DPT?
- ii) Name two international health organizations.
- iii) State reasons for the formation of WHO.

**or, b) i) Explain the following terms:**

1. Imbibition
2. Turgor Pressure

3. Flaccidity

ii) What is sex linked inheritance? [5 Mark]

**Question 7**

(a) (i) Which period has been described as a period of population explosion in India? [5 Mark]

or, (b) Draw the diagram of the a human sperm and also mention the function of each part.

