



Jagdish Singh Charitable Trust's (Regd.)
THAKUR INTERNATIONAL SCHOOL

FIRST PRELIMINARY EXAMINATION 2021 – 2022

Paper: Biology

Grade: 10

Date: 11/02/2022

Marks: 40

Time : 1 hr 30 mins.

Answer to this paper must be written on the paper provided separately.

*You will **not** be allowed to write during the first 10 minutes.*

This time is to be spent in reading the question paper.

The time given at the head of this paper is the time allowed for writing the answers.

*Attempt all questions from **section A** and attempt any three questions from **section B**.*

The intended marks for questions or parts of a question are given in the brackets []

SECTION – A

(All the questions from this Section are compulsory.)

Question 1

Name the following by choosing the correct answers to the questions from the given options.
(Do not copy the question, Write the correct answer only.)

[10]

- a) Blockage in the coronary artery leads to: (scientific term)
 - i) Myocardial infarction
 - ii) Cardiac arrest
 - iii) Angina pectoris
 - iv) Chest pain
- b) A vessel which starts and ends in capillaries.
 - i) Coronary vein
 - ii) Hepatic Portal vein
 - iii) Pulmonary vein
 - iv) Renal vein
- c) In humans, urea is produced in:
 - i) Kidney
 - ii) Liver
 - iii) Lungs
 - iv) Spleen

This paper consists of 4 printed pages.

- d) The pigmented circular area seen in front of the eye:
- Cornea
 - Ciliary muscles
 - Lens
 - Iris
- e) The part of the brain which controls the body temperature:
- Thalamus
 - Diencephalon
 - Hypothalamus
 - Cerebral peduncles
- f) Non-granular leucocytes are:
- Lymphocytes and monocytes
 - Lymphocytes and basophils
 - Eosinophils and basophils
 - Eosinophils and monocytes
- g) The pigment that gives colour to urine:
- Haemoglobin
 - Urochrome
 - Chlorophyll
 - Melanin
- h) The function of Eustachian tube:
- Equalizing air pressure
 - Conducting sound waves in external ear
 - Static balance
 - Dynamic balance
- i) The outer most layer of meninges:
- Pia matter
 - Grey matter
 - Arachnoid layer
 - Dura mater
- j) The short stem joining the bases of semicircular canal to the cochlea is termed as:
- Ampulla
 - Vestibules
 - Organ of corti
 - Perilymph

SECTION B

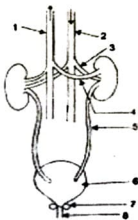
(Attempt any **THREE** questions from this section.)

Question 2

- a) Name the kind of natural reflex associated with digestion of food and mention its working. [2]
- b) Name the two liquids filled in the two chambers of the eye. [2]
- c) Write a short note on feedback mechanism with respect to endocrine glands with example. [3]
- d) Enlist three important functions of capillaries. [3]

Question 3

- a) The diagram given below shows the excretory system in humans. Study the same and answer the questions. [10]

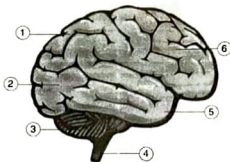


- i) Name the parts labelled 1, 2, 3 and 4.
- ii) Give the main function of the parts labelled 5, 6, 7 and 8.
- iii) Define: Excretion
- iv) Urine is slightly thicker in summers. Why?

Question 4

- a) If an individual were to sustain a significant injury to their right cerebral hemisphere, where might somatosensory loss of functioning occur? Justify. [2]
- b) 'Women with beard and Men with breasts' Explain with reference to the abnormalities in hormonal secretion. [2]

c) Observe the diagram carefully and answer the questions that follow:



- i) Label the different lobes of brain numbered 1 to 6 in the diagram.
- ii) State the characteristic function of the part numbered 3.
- iii) Which part of cerebrum is involved in recalling the past experience?
- iv) Explain the arrangement of grey and white matter in the different parts of the brain.

Question 5

- a) Write about origin and functions of erythrocyte. [3]
- b) Explain the following terms: [3]
 - i) Diapedesis
 - ii) Rh factor
 - iii) Presbyopia
- c) With reference to the structure of eye, name the three concentric layers. Also enlist the contribution of each in functioning of eye. [4]

Question 6

- a) What is CSF? Mention its function. [2]
- b) Name the two non-circulating fluids present in the human body. [2]
- c) Enlist three important functions of glucocorticoids. [3]
- d) Differentiate: [3]
 - i) Night blindness and colour blindness (with reference to sensory cells unable to function)
 - ii) Renal pelvis and Renal papilla (structure)
 - iii) Serum and Vaccine (composition)
