



SRI SRI RAVISHANKAR VIDYA MANDIR, MULUND
FIRST PRELIMINARY EXAMINATION (2021 – 2022)
SUBJECT: BIOLOGY

STD.: X

DATE: 10/02/22

MARKS : 40

TIME: 1 Hour 30 min

Answers 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 any three questions from Section B.

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

THIS QUESTION PAPER CONSISTS OF [4] PRINTED PAGES.

SECTION A

(Attempt **all** questions.)

Question 1

Name the following by choosing the correct answers to the questions from the given [10]
options. (Do not copy the question, Write the correct answer only.)

- (i) The life-span of RBC is
 - (a) 1 year
 - (b) 120 days
 - (c) 14 days
 - (d) 3 to 5 days
- (ii) Proximal convoluted tubule of nephron lies in
 - (a) Ureter
 - (b) Urethra
 - (c) Cortex
 - (d) Medulla
- (iii) Which of the following is mainly associated with the maintenance of posture?
 - (a) Cerebrum
 - (b) Cerebellum
 - (c) Medulla oblongata
 - (d) Thalamus
- (iv) The part of the eye which is grafted in a needy person from a donated eye
 - (a) Conjunctiva
 - (b) Choroid
 - (c) Cornea
 - (d) Ciliary muscles

- (v) Cushing's disease is due to over-secretion of
 - (a) Thyroid
 - (b) Pancreas
 - (c) Adrenal medulla
 - (d) Adrenal cortex
- (vi) Bicuspid and tricuspid valves are closed during
 - (a) Ventricular systole
 - (b) Ventricular diastole
 - (c) Atrial systole
 - (d) Joint diastole
- (vii) Diabetes insipidus is caused due to the deficiency of hormone
 - (a) Glucagon
 - (b) Insulin
 - (c) ADH
 - (d) Oxytocin
- (viii) The outer layer of meninges is
 - (a) Piamater
 - (b) Arachnoid
 - (c) Duramater
 - (d) Neurilemma
- (ix) The smallest ear ossicle
 - (a) stapes
 - (b) Malleus
 - (c) Incus
 - (d) cochlea
- (x) Insulin is secreted by
 - (a) Alpha cells of pancreas
 - (b) Beta cells of pancreas
 - (c) Delta cells of pancreas
 - (d) None of these

SECTION B

(Attempt any **three** questions from this Section.)

Question 2

- (i) Name the enzyme and soluble protein involved in blood clotting. [2]
- (ii) Explain Micturition. [2]
- (iii) Draw a neat labelled diagram of a myelinated neuron. [3]
- (iv) Name the three layers of the eyeball [3]

Question 3

- (i) Name the gland responsible for the following diseases:
(a) Gigantism (b) Cretinism

[2]

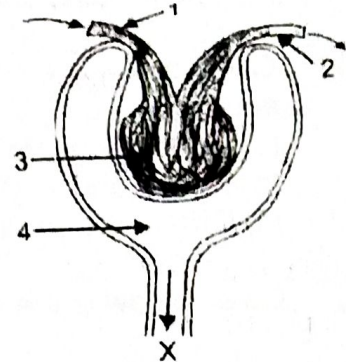
- (ii) Sino atrial node is called pacemaker of heart. Comment

[2]

- (iii) Study the diagram and answer the following questions:

[3]

- (a) Label the parts 1 to 4.
(b) What stage in urine formation occurs in part 3?



- (iv) Given below are a few common reflexes in humans. Classify them as a natural or conditioned reflex.
- (a) Knee-jerk
(b) Watering of mouth on seeing a favourite dish.
(c) Closing of eyelids if a strong beam of light is flashed across.

[3]

Question 4

- (i) Name the fluids present in the ear.

[2]

- (ii) Write the exact location of thyroid gland.

[2]

- (iii) What does the term double circulation mean?

[3]

- (iv) Draw neat and well-labelled diagrams of a nephron.

[3]

Question 5

- (i) Name the fluid that surrounds the brain. State its function.

[2]

- (ii) We feel blinded for a short time while coming out of a dark room.

[2]

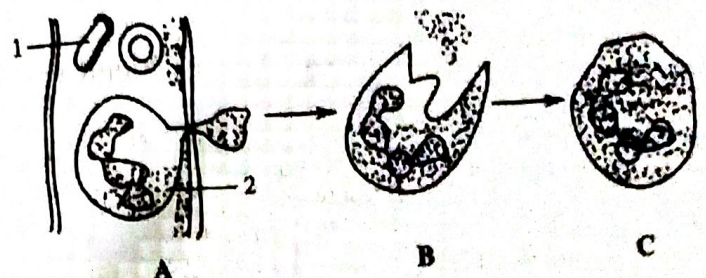
- (iii) Write the full form of the following:-

[3]

- a) TSH
b) ACTH
c) FSH

- (iv) Study the following diagram carefully and then answer the questions that follow:

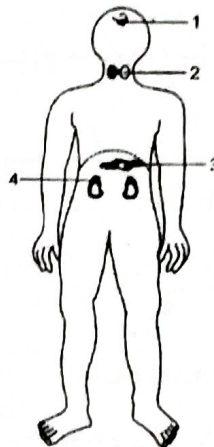
[3]



- (a) Name the cell labelled 1.
- (b) Identify the phenomenon occurring in A.
- (c) Name the process occurring in B and C.

Question 6

- (i) Glucose is normally not found in urine. Explain briefly. [2]
- (ii) Define stimulus and response. [2]
- (iii) Given below are certain structures. Write against each their special functional activity: [3]
 - (a) Olfactory nerve and _____
 - (b) Retina and _____
 - (c) Organ of Corti and _____
- (iv) Given below is the outline of the human body showing the important glands. [3]



- a) Name the glands marked 1 to 4.
- b) Name the gland that secretes the 'emergency hormone'.