

BALDWIN GIRLS' HIGH SCHOOL, BENGALURU.
STD X SEMESTER 2 MODEL EXAMINATION
FEBRUARY-2022

SUB: BIOLOGY (SCIENCE PAPER -3)

Maximum Marks - 40

Time – One and a half hours

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 [].*

SECTION A

(Answer All the questions)

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]

1] The smallest common blood vessels formed by the union of capillaries.

- a] Arterioles
- b] Areolas
- c] Venules
- d] Veins

2] The tympanic membrane lies between

- a] the outer and inner ear
- b] The outer and middle ear
- c] The middle and inner ear
- d] The middle ear and membranous labyrinth

3] The number of cranial nerves in humans is

- a] 12 pairs
- b] 21 pairs
- c] 31 pairs
- d] 23 pairs

4] Hypersecretion of GH in adults causes

- a] Gigantism
- b] Addison's disease
- c] Acromegaly
- d] Cretinism

- 5] Glomerular filtrate is received by
 a] Loop of Henle
 b] Proximal tubule
 c] Bowman's capsule
 d] Distal convoluted tubule
- 6] The fluid found between the membranes of the heart.
 a] Pleural fluid
 b] Tissue fluid
 c] Pericardial fluid
 d] Lymphatic fluid
- 7] The normal diastolic blood pressure in a normal healthy adult human is
 a] 80 mm Hg
 b] 60 mm Hg
 c] 90 mm Hg
 d] 110 mm Hg
- 8] The exact location of adrenal glands
 a] Below the kidney
 b] Near the kidney
 c] On top of each kidney
 d] Inside the kidney
- 9] The pigmented circular area seen in front of the eye
 a] Cornea
 b] Lens
 c] Ciliary muscles
 d] Iris
- 10] The part of the brain concerned with muscular co-ordination
 a] Pons
 b] Cerebellum
 c] Cerebrum
 d] Medulla oblongata

SECTION-B

(Attempt **any three** questions from this section)

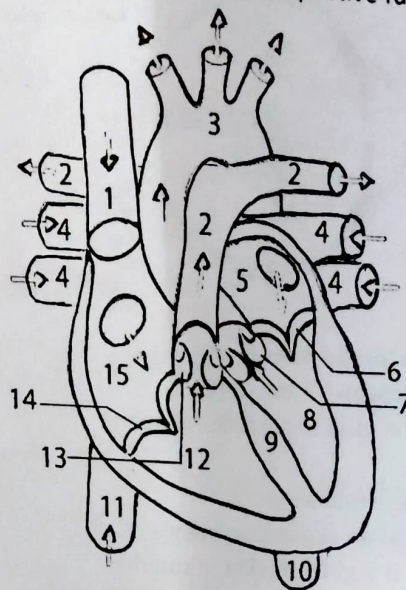
Question-2

- 1) Mention the exact location and function of Corpus Callosum. [2]
- 2) Explain the term micturition. [2]
- 3) Draw a neat, labelled diagram of the human blood smear. Label all three types of cells and state functions of each type. [3]
- 4) Name the three major steps in the formation of urine. [3]

Question-3

- 1) Give the full form of the following abbreviations : [2]
 - (a) FSH
 - (b) ACTH

- 2) State the location and function of the lacrimal gland. [2]
- 3) Name the conditions caused due to hypothyroidism [3]
- 4) Given below is the diagram of a human heart. [3]
Label the parts 1,2 and 3 and mention their respective functions.



Question -4

- 1) Name the part of the ear associated with
(a) Static balance (b) Dynamic balance [2]
- 2) State any two general properties of hormones. [2]
- 3) Draw a neat diagram of a neuron and label the following: [3]
a) Cyton b) Axon c) Node of Ranvier
- 4) Complete the following paragraph by filling in the blanks (a) to (c) with appropriate words: [3]

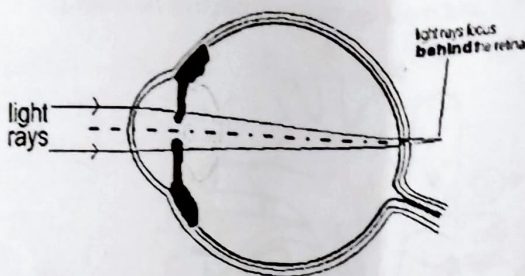
The amount of urine output is under the regulation of a hormone called (a) _____ secreted by the (b) _____ lobe of the pituitary gland. If this hormone secretion is reduced, there is an increased production of urine. This disorder is called (c) _____

Question-5

- 1) Name the hormones which lead to following conditions: [2]
(a) Exophthalmic goitre
(b) Hypoglycemia
(c) Adrenal virilism
(d) Gigantism
- 2) State the location of : [2]
(a) Pulmonary semilunar valve
(b) Bicuspid valve

- 3) Given below is a diagram depicting a defect of the human eye. Answer the following questions :

[3]



- Give the scientific term for the defect.
- Mention one possible reason for the defect.
- What type of lens can be used to correct the defect.

- 4) Give scientific reasons for the following :

[3]

- Pancreas is referred to as an exo-endocrine gland.
- The urine excreted out is slightly thicker in summer.
- Atrial wall is less muscular than the ventricular wall.

Question-6

- 1) State the location and function of :

[2]

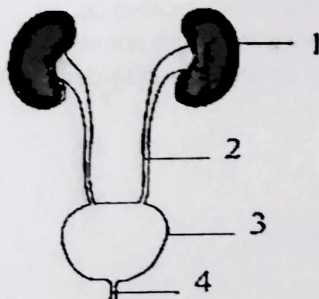
- Fovea centralis
- Organ of Corti

- 2) Mention two structural differences between an artery and a vein.

[2]

- 3) Given below is the diagram of human urinary system. Study the diagram and answer the following questions :

[3]



- Name the parts labelled 1, 2, 3 and 4.
- State the main function of the parts labelled 2 and 4.

- 4) Complete the following table :

[3]

GLANDS	HORMONE SECRETED	FUNCTION
Pancreas	1	Lowers blood sugar level
Adrenal gland	2	Metabolism in emergency
Thyroid gland	Thyroxine	3
