

INSTITUTE OF INDIGENOUS MEDICINE, UNIVERSITY OF COLOMBO
DEGREE OF BACHELOR OF AYURVEDA MEDICINE AND SURGERY
FIRST PROFESSIONAL SUPPLEMENTARY (ON LINE) EXAMINATION
MARCH 2021

Subject – Shareera Kriya - Part II (Physiology and Biochemistry)

Date: 22. 03. 2021

Time: 2pm - 2.50pm

Structured Essay Questions

Answer all questions.

1. List five (05) body systems involved in the maintenance of Homeostasis.
2.
 - a. Name three (03) types of Lymphocytes along with one function of each.
 - b. List four (04) causes of macrocytic (larger than normal) red blood cells.
3.
 - a. What is the variable shown in the x-axis of oxyhaemoglobin dissociation curve?
 - b. What is the variable shown in the y-axis of oxyhaemoglobin dissociation curve?
 - c. Name three (03) factors that would shift the oxyhaemoglobin dissociation curve to the right.

4. List the components of Respiratory centre along with their functions.
5. List the methods of Carbondioxide transportation with their approximate percentages.
6. List the following
 - a. Two (02) physiological causes of Tachycardia.
 - b. Two (02) causes of Left Ventricular Hypertrophy.
7.
 - a. List four (04) complications of uncontrolled Systemic Hypertension.
 - b. Name three (03) causes of Secondary Hypertension.
8.
 - a. List three (03) functions of Saliva.
 - b. Name digestive juices secreted by the Stomach along with their functions.

9. Name three (03) types of Jaundice giving one cause for each.

10.

a. List three (03) functions of Thyroxine.

b. List three (03) functions of Insulin.

11.

a. Name four (04) factors that regulate secretions of growth hormones.

b. Mention two (02) clinical features that would help you to differentiate Dwarfism due to Cretinism and that due to Growth hormone deficiency.

12.

a. List three (03) functions of Sertoli cells.

b. What is the importance of early detection of undescended testis in a child?

13.

a. List four (04) hormones influencing on Breast development during Puberty.

b. What stimulates the milk secretion soon after child birth?

14. Name three (03) types of Gait (walking) abnormalities giving the site of lesion.

15.

- a. Name four (04) substances over 60% of which are absorbed by the Proximal Renal Tubule.
- b. Name the deficiency of substances produced by the Kidney responsible for the following conditions:
 - i. Anaemia
 - ii. Weak bones

16.

- a. Name four (4) Lipoproteins found in blood.
- b. Briefly mention the function of HDL (High Density Lipoprotein).

17.

- a. Name four (4) Reducing sugars.
- b. What is the predominate simple sugar found in fruits.

18.

a. Name two (2) Amino acids which contain Sulphur.

b. Name the structures/levels of following Proteins

- i. Insulin
- ii. Silk
- iii. Myoglobin
- iv. Hemoglobin

19.

a. Name three (03) factors which affect the speed of enzymatic reaction.

b. Give two (02) differences between competitive and non-competitive inhibition.

20.

a. Mention the function of gut microorganism in the bilirubin metabolism.

b. Name the responsible cellular organ for following functions

- i. ATP synthesis
- ii. Protein synthesis
- iii. Secretory functions
- iv. Cellular control function