

**BACHELOR OF CLINICAL OPTOMETRY**

**I-B. Optometry Sem-I : WINTER :- 2021**

**SUBJECT: HUMAN BIOLOGY**

**Day : Saturday**

**Date 5/3/2022**

**W-826-2021**

**Time : 10:00 AM-01:00 PM**

**Max. Marks: 70**

**N.B.**

- 1) There are **THREE** sections as :  
Section A – Objective types questions - 20 marks  
Section B – Long questions - 20 marks  
Section C – Short questions - 30 marks
- 2) Section A is given on **SEPARATE** sheet has to be answered on the same sheet.
- 3) Section B has 3 long questions and **ANY TWO** questions have to be answered on the **SEPARATE** answerbook.
- 4) Section C has short questions and **ANY FIVE** questions have to be answered on **SEPARATE** answerbook.
- 5) Draw neat and labelled diagram **WHEREVER** necessary.

**SECTION - B**

**Q.1 Attempt ANY TWO of the following : (20)**

- a) Name the cells in the blood. Describe functions of any one.
- b) Describe in detail about nervous regulation of respiration.
- c) What is synapse? Describe its properties.

**SECTION - C**

**Q.2 Write short note on ANY FIVE of the following : (30)**

- a) Salivary gland
- b) Cough reflex
- c) Post pituitary
- d) Functions of kidney
- e) Cell organelle
- f) Feedback mechanism

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**Note :**

**Section A** is given on a separate sheet and has to be answered on same sheet. This sheet should be completed within first 30 minutes of starting of examinations. This sheet with Section A only will be collected by the supervisor

Seat No. : \_\_\_\_\_

Date : \_\_\_\_\_

Day : \_\_\_\_\_

Max. Marks : 20

**SECTION – A**

**Q.1** Fill in the blanks :

**(10)**

- a) Rough endoplasmic reticulum is site for synthesis of -----.
- b) Normal blood pH is -----.
- c) Stuart prower factor is factor ----- .
- d) Time duration of normal cardiac cycle is ----- .
- e) There are ----- pairs of cranial nerves.
- f) Melatonin is produced by ----- gland.
- g) ----- immunoglobulin is present in the salivary secretions.
- h) ----- is the potent stimulus for peripheral chemoreceptors.
- i) In ECG T wave is formed due to ----- .
- j) Surface tension lowering substance is alveoli is ----- .

**Q.2** State True or False

**(05)**

- a) Oxytocin is produced by posterior pituitary gland.
- b) Lifespan of RBCS is 120 days.
- c) TSH is secreted by thyroid gland.
- d) Total numbers of bones in adult are 206.
- e) Respiratory centres are located in medulla and pons.

**PTO**

**Q.3** Match the following

**(05)**

<b>1)</b>	Vitamin A	<b>A)</b>	125 ml / min
<b>2)</b>	Glomerular filtration rate	<b>B)</b>	300-500 ml
<b>3)</b>	WBC	<b>C)</b>	Diabetes insipidus
<b>4)</b>	ADH	<b>D)</b>	Retinol
<b>5)</b>	Normal tidal volume	<b>E)</b>	15 days

**Marks Obtained :** \_\_\_\_\_

**Signature of Invigilator :** \_\_\_\_\_

**Signature of Examiner :** \_\_\_\_\_

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