

BACHELOR OF PHYSIOTHERAPY (BPTH)

First Year BPTH : WINTER- 2022

SUBJECT : HUMAN PHYSIOLOGY

Day : Wednesday

Time : 02:00 PM-05:00 PM

Date : 9/11/2022

W-25045-2022

Max. Marks : 80

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Section A and Section B should be written on **SEPARATE** answer sheets.
 - 3) Draw neat and clean diagrams **WHEREVER** necessary.
 - 4) Figures to the right indicate **FULL** marks.
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Section A

Q.1 Long Answer Questions (Attempt Any Two): (2 x 10 = 20)

- a) With the help of well labelled diagram, describe origin and spread of cardiac impulse. Add a note on P-R interval in electrocardiogram. (2+6+2)
- b) Draw and label respiratory membrane. Describe various factors affecting diffusion of gases across it. Add a note on types of hypoxia. (2+5+3)
- c) Define cardiac cycle. Enlist atrial and ventricular events during cardiac cycle. Elaborate in detail various phases in ventricular diastole. (1+3+6)

Q.2 Short Essay Questions (Attempt Any Four): (4 x 5 = 20)

- a) Cardiovascular changes in moderate exercise.
- b) Physiological actions of insulin.
- c) Composition and functions of pancreatic juice.
- d) Spermatogenesis.
- e) Surfactant.

Section B

Q.3 Long Answer Questions (attempt Any Two): (2 x 10 = 20)

- a) Describe in detail connections and functions of cerebellum. Describe any two signs of cerebellar dysfunction. (4+4+2)
- b) With the help of flow chart, write in detail events during transmission of impulse across neuro- muscular junction in skeletal muscle. Add a note on myasthenia gravis. (7+3)
- c) Enlist various ascending tracts in spinal cord. Describe origin, course and termination of spinothalamic tracts. Enumerate the sensations carried by them. (2+6+2)

Q.4 Short Essay Questions (Attempt Any Four): (4 x 5 = 20)

- a) Antibody mediated immunity
- b) Juxtaglomerular apparatus
- c) Errors of refraction.
- d) Active transport across cell membrane
- e) Properties of synapse (any two)

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