

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

MSc DEGREE EXAMINATION DECEMBER 2018
(First Semester)

Branch - CLINICAL NUTRITION AND DIETETICS

HUMAN PHYSIOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks (10 x 1 = 10)

- 1 Who coined the term 'Cell'?
(i) Schwann (ii) Robert Hooke
(iii) DeBary (iv) Tatum
- 2 Which of the following is associated with the structure of golgi complex?
(i) Cisternae (ii) Cristae
(iii) Annuli (iv) Quasomes
- 3 Which of the following is a contractile protein of a muscle?
(i) Actin (ii) Myosin
(iii) Tubulin (iv) Fibrin
- 4 Which of the following hormone levels are increased in post menopausal women?
(i) Estrogen (ii) FSH
(iii) Progesterone (iv) Cortisone
- 5 Choose the following type which occurs in delta waves in EEG.
(i) Deep sleep (ii) REM sleep
(iii) Awake (iv) Non-REM sleep
- 6 Find the part where the exchange of respiratory gases in the lungs takes place.
(i) Alveoli (ii) Trachea
(iii) Bronchiole (iv) Bronchi
- 7 Which of the following is correct pairing of site of action and substrate of rennin?
(i) Mouth-starch (ii) Stomach-fat
(iii) Stomach - casein (iv) Small intestine - casein
- 8 What is common among amylase, rennin and trypsin?
(i) These are produced in stomach (ii) These act at pH lower than 7
(iii) These are all proteins (iv) These all are proteolytic enzymes
- 9 Find the relay center between various parts of brain and spinal cord.
(i) Hypothalamus (ii) Thalamus
(iii) Mid brain (iv) Hindbrain
- 10 Which of the following organ is NOT part of cardiovascular system?
(i) Artery (ii) Spleen
(iii) Vein (iv) Capillary

SECTION - B (35 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5x7 = 35)

Discuss the origin and conduction of heart beat.

OR

Evaluate the cardio-respiratory response to exercise.

Discuss the digestion and absorption of fats.

OR

Explain the process involved in urine formation.

Discuss on the role of hormones secreted by pituitary gland.

OR

Illustrate the structure of female reproductive system.

State the principle and interpretation of EEG.

OR

Explain the rhodopsin cycle.

SECTION - C (30 Marks!

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks (3 x 10 = 30)

Compare and differentiate between membrane and action potential.

Enumerate the process involved in cardiac cycle.

Elucidate the functions and anatomy of kidney and nephron and also functioning of hemodialyser.

Enumerate the mechanism of contraction of skeletal muscles.

Compare the role of efferent and afferent nerves and give a brief note on neurotransmitters.

Z-Z-Z

END