

**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) Quatasomes
- 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)

- 12 a Discuss the origin and conduction of heart beat
OR
b Evaluate the cardio-respiratory response to exercise.
- 13 a Discuss the digestion and absorption of fats.
OR
b Explain the process involved in urine formation.
- 14 a Discuss on the role of hormones secreted by pituitary gland.
OR
b Illustrate the structure of female reproductive system.
- 15 a State the principle and interpretation of EEG.
OR
b Explain the rhodopsin cycle.

SECTION - C (30 Marks'!

Answer any THREE Questions

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

- 16 Compare and differentiate between membrane and action potential.
- 17 Enumerate the process involved in cardiac cycle.
- 18 Elucidate the functions and anatomy of kidney and nephron and also functioning of hemodialyser.
- 19 Enumerate the mechanism of contraction of skeletal muscles.
- 20 Compare the role of efferent and afferent nerves and give a brief note on neurotransmitters.

Z-Z-Z

END