

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)

BSc DEGREE EXAMINATION DECEMBER 2022
(Fifth Semester)

Branch – BIOCHEMISTRY

DISCIPLINE SPECIFIC ELECTIVE – I: PHYSIOLOGY & ENDOCRINOLOGY

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(10 x 1 = 10)

- 1 Find the major proteolytic enzyme involved in digestive process.
(i) Amylase (ii) Pepsin
(iii) Lipase (iv) Gastrin
- 2 Name the form of carbon dioxide in blood is transported .
(i) Dissolved state (ii) Plasma as bicarbonate
(iii) Carbamino haemoglobin (iv) Methamoglobin
- 3 Label the life span of RBC.
(i) 120 days (ii) 200 days
(iii) 150 days (iv) 130 days
- 4 Find another name of S.A node.
(i) Tricuspid valve (ii) Bicuspid valve
(iii) Pacemaker (iv) Pulmonary valve
- 5 Which one of the neurotransmitter is called as amine neurotransmitter?
(i) Gastrin (ii) Acetyl choline
(iii) Serotonin (iv) Secretin
- 6 Name the hormone secreted by adrenal medulla.
(i) Epinephrine (ii) Estrogen
(iii) Androgen (iv) Progesterone
- 7 Label the anti-diuretic hormone.
(i) Oxytocin (ii) Vasopressin
(iii) adrenalin (iv) Epinephrine
- 8 Indicate the enzyme involved in the conversion of ATP to C AMP.
(i) Tyrosine Kinase (ii) Protein Kinase
(iii) Adenylate Kinase (iv) RAS
- 9 Select the cell which secreting HCL.
(i) Chief cells (ii) G-cells
(iii) Oxyntic cells (iv) Delta cells
- 10 Which one is the female sex hormone secreted by ovaries?
(i) Testosterone (ii) Estrogen
(iii) TSH (iv) ACTH

Cont...

SECTION - B (35 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks

(5 x 7 = 35)

- 11 a Narrate the role of GI tract hormones.
OR
b Write a note on (a) Chloride shift's (b) Bohr's effects.
- 12 a Explain the techniques and application of electro cardiogram.
OR
b Describe the renal regulation of acid-base balance.
- 13 a Describe the composition and function of CSF.
OR
b List out the neurotransmitter and its inhibitors.
- 14 a Classify the Hormones based on their chemical nature.
OR
b Describe the biological function of PTH.
- 15 a Discuss the disorder of male and female reproductive glands.
OR
b Outline the biosynthetic pathway of melatonin.

SECTION - C (30 Marks)

Answer any **THREE** Questions

ALL Questions Carry **EQUAL** Marks

(3 x 10 = 30)

- 16 Discuss the structure and functions of digestive system.
- 17 Enumerate the mechanism of muscle contraction by sliding filament method.
- 18 What is synaptic junction and illustrate the mechanism of cholinergic transmission.
- 19 Summarize the mechanism action of group II hormones.
- 20 Elucidate the role of Insulin in Diabetes mellitus.

Z-Z-Z

END