

Q.P. Code:136005

Reg. No.....

**First Professional B.S.M.S Degree Regular/Supplementary Examinations
March 2026**

Udal Thathuvam (Physiology) Paper II

(2021 Scheme)

Time: 3 hrs

Max. Marks: 100

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw table/diagrams/flow charts wherever necessary*

1. Multiple Choice Questions (20x1=20)

The responses for MCQ questions (Q.No. i to Q.No. xx) shall be written continuously on the first two writing sheets (ie Page No. 3 & 4) only

- Major site of storage and metabolism of calcium
 - Rough endoplasmic reticulum
 - Mitochondria
 - Smooth endoplasmic reticulum
 - All the above
- Which one is responsible for Cell division
 - Centrosome
 - Lysosomes
 - Ribosomes
 - Centrioles
- Normal value of Potassium in ICF
 - 142mEq/l
 - 140mEq/l
 - 114mEq/l
 - 104mEq/l
- Punctate Basophilism present in
 - Sickle cell anemia
 - Lead poisoning
 - Pernicious anemia
 - Arsenic poisoning
- The rate of formation of aqueous humor is about
 - 4-5µl/min
 - 3-4µl/min
 - 2-4µl/min
 - 2-3µl/min
- Center for light reflexes
 - Edinger Westphal nucleus
 - Pretectal nucleus
 - Optic chiasma
 - Ciliary ganglion
- Center for vomiting reflex
 - Red nucleus
 - Superior colliculus
 - Vestibular nucleus
 - Nucleus of Tractus solitaries
- Normal bilirubin in plasma
 - 0.5-1 mg/dl
 - 0.2-0.7 mg/dl
 - <0.3 mg/dl
 - 5 mg/dl
- is the principal mineral in the muscle
 - Calcium
 - Potassium
 - Sodium
 - Magnesium
- The length of Sarcomere is
 - 1-2 µ
 - 2-3 µ
 - 3-4µ
 - 4-5µ
- The gland that do not play any role in temperature regulation
 - Apocrine gland
 - Exocrine gland
 - Buccal gland
 - Salivary gland
- Diluting segment of the nephron is
 - Proximal convoluted tubule
 - Descending segment of loop of Henle
 - Thick Ascending segment of loop of Henle
 - Thin and thick Ascending segment of lop of Henle

(PTO)

- xiii. Tidal volume value
 a) 1500ml b) 500ml c) 1000ml d) 1200ml
- xiv. Primary inspiratory muscle is
 a) Sternocleidomastoid b) Abdominal muscle
 c) Diaphragm d) Scalene muscle
- xv. Duration of the fourth heart sound
 a) 0.10 to 0.17 seconds b) 0.10 to 0.14 seconds
 c) 0.2 to 0.6 seconds d) 0.02 to 0.04 seconds
- xvi. Diastolic murmur seen in
 a) Incompetence of Atrioventricular valve
 b) Patent ductus arteriosus
 c) Incompetence of semilunar valves
 d) Stenosis of Atrioventricular valve
- xvii. Pheochromocytoma is detected by measuring
 a) Aldosterone b) Cortisol
 c) Calcitonin d) Vanillyl mandelic acid
- xviii. Which one is life saving hormone
 a) Insulin b) Cortisol c) Aldosterone d) Epinephrine
- xix. Androgen binding protein is secreted by
 a) Leydig cells b) Sertoli cells c) Both A and B d) None
- xx. Which one provides Myelination around the nerve fibres in peripheral nervous system
 a) Oligodendrocytes b) Microglia c) Schwann cells d) Astrocytes

Short Answer Questions

(8x5=40)

2. Write about the functions of Basal ganglia.
3. Explain the transport of Carbon dioxide in blood.
4. List out the functions of Ascending tracts of Spinal cord.
5. Micturition reflex.
6. Describe about Phagocytosis.
7. Describe the process of Spermatogenesis.
8. Phototransduction.
9. Describe about the Sarcomere.

Long Answer Questions

(4x10=40)

10. Enumerate the Corticosteroids. Describe the actions and regulation of secretion of Aldosterone.
11. Describe the morphology, development and functions of Leucocytes.
12. Give a detailed account of Gastrointestinal movements.
13. Explain arterial blood pressure and write about its mechanism of regulation.
