22223 3 Hours / 80 Marks

Instructions –

- (1) All Questions are *Compulsory*.
 - (2) Answer each next main Question on a new page.
 - (3) Illustrate your answers with neat sketches wherever necessary.
 - (4) Figures to the right indicate full marks.
 - (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

1. Attempt any <u>EIGHT</u> of the following:

- a) Define Anatomy and Physiology.
- b) Enlist the functions of mitochondria.
- c) Classify the tissues.
- d) Write any four functions of bones.
- e) Define and classify joints.
- f) Name the bones of lower limb.
- g) Define Stroke Volume and Cardiac output.
- h) Write the composition of urine.
- i) Mention the composition of blood.
- j) Explain the role of calcium in muscle contraction.
- k) Draw the well labelled diagram of T.S. of Spinal cord.
- 1) Mention the normal values of R.B.C. and W.B.C.'s in male and female.

2. Attempt any <u>FOUR</u> of the following:

- a) Explain physiology of external respiration.
- b) Enlist any six cranial nerves with their functions.
- c) Draw well labelled diagram of sagital section of the eye.
- d) Explain the formation of urine.
- e) Define the terms Digestion and mastication. Where do they occur?
- f) Write the effect of sympathetic nervous system stimulation on...
 - i) Heart
 - ii) Bronchi
 - iii) Eye

3. Attempt any FOUR of the following:

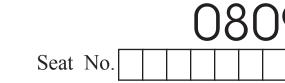
- a) Write the functions of liver.
- b) Define the term of Hormone. Enlist the endocrine glands.
- c) Draw a well-labelled diagram of Lymphnode.
- d) Enlist the functions of testes and ovaries.
- e) Write the composition and functions of Gastric juice.
- f) Explain terms:
 - i) Osteoporosis
 - ii) Dwarfism
 - iii) Medial

12

Marks

16

12



Attempt any FOUR of the following:
Explain process of erythropoiesis.
Draw a well labelled diagram of interior of the heart.
Enlist the hormones released from anterior pituitary gland with t
Explain three functions of lymphatic system.
Explain menstrual cycle.
Define and give normal values of
i) Blood pressure
ii) Vital capacity
iii) Cardiac cycle
, 5
Attempt any FOUR of the following:
Enlist bones of Axial skeleton.
Explain ABO system of Blood grouping.
Explain functions of cerebellum.
Explain physiology of Hearing.

- e)
- f) Define the terms:
 - CHF i)
 - ii) Leucocytosis

Attempt any FOUR of the following: 6.

- Explain physiology of neuromuscular junction. a)
- b) What are auditory ossicles? Write their functions.
- c) Describe the structure and functions of female reproductive system.
- d) Explain mechanism blood clotting.
- Explain structure and functions of simple epithelium. e)
- Describe muscle tone and muscle fatigue. f)

4.

- a)
- b)
- their functions. c)

[2]

- d)
- e)
- f)

5.

- a)
- b)
- c)
- d)
- Give the functions of Haemoglobin and mitochondria.

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