21222

3 Hours / 80 Marks

Seat No.				

15 minutes extra for each hour

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.

Marks

1. Attempt any EIGHT of the following:

 $8 \times 2 = 16$

- (a) Define the terms Anatomy and Physiology.
- (b) State the functions of bone.
- (c) Give the composition of gastric-juice.
- (d) Explain mitochondria is called power house of cell.
- (e) Name organs of respiratory system.
- (f) Name the gland which is called as Master gland? Why.
- (g) What are Meninges? Enlist them.
- (h) Mention four abnormal constituent of Urine.
- (i) Describe compound epithelium in short.
- (j) Define cardiac out-put? Write its normal value.
- (k) Name sinuses present in the skull.
- (1) What is SA node and AV node?

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2. Solve any FOUR of the following:

- $4 \times 3 = 12$
- (a) Define blood pressure (B.P.). Name factors affecting B.P.
- (b) Differentiate between male pelvis and female pelvis.
- (c) Describe mechanism of respiration.
- (d) Define: (i) Anaemia
 - (ii) Thrombocytopenia
 - (iii) Leukaemia
- (e) Give the function of skin.
- (f) Draw a well labelled diagram of cell.

3. Solve any FOUR of the following:

 $4 \times 3 = 12$

- (a) Write the composition of blood.
- (b) Draw a well-labelled diagram of L.S of kidney.
- (c) Explain the physiology of urine formation.
- (d) Describe the exocrine and endocrine function of pancreas.
- (e) Give composition and function of saliva.
- (f) Give the function of WBCs.

4. Solve any FOUR of the following:

 $4 \times 3 = 12$

- (a) Explain the structure of "Neuro-Muscular junction".
- (b) Write the function of spleen.
- (c) Describe mechanism of hearing in short.
- (d) Define: (i) Residual volume
 - (ii) Tidal-volume
 - (iii) Vital-capacity
- (e) Describe menstrual cycle in brief.
- (f) Describe various disorders of joints.

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5. Solve any FOUR of the following:

 $4 \times 3 = 12$

- (a) Explain the terms: Glycosuria, Protein Uria and Haematuria.
- (b) Write the function of hypothalamus.
- (c) Draw and label diagram of "Digestive system".
- (d) Define the term puberty? State the changes occuring in male at puberty.
- (e) Name the secretion of adrenal glands with their function.
- (f) Describe the physiology of muscle contraction.

6. Solve any FOUR of the following:

 $4 \times 4 = 16$

- (a) What is semen? Describe spermatozoa in short.
- (b) Define the term reflex action. Draw a neat labelled diagram of reflex arc.
- (c) Describe internal structure of Heart.
- (d) Differentiate between sympathetic and parasympathetic nervous system.
- (e) Describe in brief the "Cardiac cycle".
- (f) Discuss the external organs of "Female reproductive system".

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