

- N.B. : (1) **All** questions are **Compulsory**
 (2) Answer **all** sub questions **together**.
 (3) **Draw neat labeled diagram wherever necessary.**

Q.1A) Answer the following

16M

- i. Define “tachycardia” and bradycardia”.
- ii. Explain the significance of segments and peaks in normal ECG.
- iii. Draw neat labeled diagram of urinary system.
- iv. What is deglutination?
- v. Explain Glomerular filtration Rate (GFR).
- vi. Explain functions of sertoli cells.
- vii. Enlist vital functions of liver.
- Viii. Enlist phases of digestion.

Q.1B) Answer the following

4M

1. Descending limb of Loop of Henle	A. 70 ml
2. Ascending limb of Loop of Henle	B. $\text{Na}^+ - \text{K}^+ - 2\text{Cl}^-$ symport
3. Strok Volume	C. Permeable to water
4. End diastolic volume	D. 130 ml

Q.2 A) Answer any TWO of the following

8M

- i. Explain cardiac cycle.
- ii. Explain Mean Arterial Blood pressure and factors affecting MABP.
- iii. Explain in detail different layers of heart wall.

Q.2 B) Answer any ONE of the following

4M

- i. Write a short note on Angina pectoris.
- ii. Explain “Action Potential” of Heart muscle.

Q.3 A) Answer any TWO of the following

8M

- i. Discuss in detail mechanical digestion in small intestine.
- ii. Draw a neat labeled diagram of Section of Liver.
- iii. Give detail account on glands found in stomach and their functions.

Q.3 B) Answer any ONE of the following

4M

- i. Write note on Digetion of fat.
- ii. Write a note on Peptic ulcer.

Q.4 A) Answer any TWO of the following

8M

- i. Discuss the process of Urine formation.
- ii. Draw a neat labeled diagram of filtration membrane and discuss funtions of kidneys.
- iii. Give hormonal regulation of tubular reabsorption and secretion.

Q.4 B) Answer any ONE of the following

4M

- i. Write a note on chronic renal failure.
- ii. Explain renin-angiotensin-aldosterone system.

Q.5 A) Answer any TWO of the following

8M

- i. Explain hormonal regulation of menstrual cycle.
- ii. Explain stages of spermatogenesis.
- iii. Draw neat labeled diagram of ovary.

Q.5 B) Answer any ONE of the following

4M

- i. Write a short note on infertility.
- ii. Write a short note on Dysmenorrhea.

Q.6 A) Answer any TWO of the following

8M

- i. Explain in detail fluid compartments and fluid balance.
- ii. Write a note on various secretions of digestive system.
- iii. Explain conducting system of heart.

Q.6 B) Answer any ONE of the following

4M

- i. Write a note on oogenesis.
- ii. Write a note on electrolyte in body fluids.

