

- 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. Enlist heart valves.
- ii. Explain Stroke volume.
- iii. Differentiate between cortical and juxtamedullary nephrons.
- iv. Write down composition and functions of saliva.
- v. Give three basic processes of nephron.
- vi. Enlist phases of female reproductive cycle
- vii. Enlist vital functions of liver and gallbladder
- Viii. Explain cephalic phase of digestion.

Q.1B) Answer the following

4M

- i. The membrane that surrounds and protects the heart is _____.
- ii. _____ involves the maturation of spermatids into sperm.
- iii. _____ prevents filtration of blood cells but allows all components of blood plasma to pass through filtration membrane.
- iv. The _____ consists of areolar connective tissue that binds the mucosa to the muscularis.

Q.2 A) Answer any TWO of the following

8M

- i. Draw a normal ECG. Explain the significance of segments and peaks.
- ii. Write note on conduction system of heart.
- iii. Explain in detail structure of blood vessels.

B) Answer any ONE of the following

4M

- i. Write a short note on cardiac arrhythmia.
- ii. Write the Pathophysiology of hypertension.

Q.3 A) Answer any TWO of the following

8M

- i. Discuss in detail functions of liver and add a note on hepatocyte.
- ii. Draw a neat labeled diagram of anatomy of Large intestine.
- iii. Give detail account on chemical digestion in small intestine.

B) Answer any ONE of the following

4M

- i. Explain pathophysiology of reflux oesophagitis.
- ii. Write a short note on jaundice.

Q.4 A) Answer any TWO of the following

8M

- i. Discuss the process of reabsorption and secretion in proximate convoluted tubule.
- ii. Draw a neat labeled diagram of section of kidney and discuss functions of kidneys.
- iii. Give hormonal regulation of tubular reabsorption and secretion.

B) Answer any ONE of the following

4M

- i. Write a note on urinary tract infection.
- ii. Write the Pathophysiology of kidney stone.

Q.5 A) Answer any TWO of the following

8M

- i. Explain neural and hormonal regulation of blood pressure.
- ii. Explain mechanism of capillary exchange and comment on net filtration pressure.
- iii. Discuss in detail cardiac cycle.

B) Answer any ONE of the following

4M

- 1. Write the Pathophysiology of Sexually transmitted diseases.
- 2. Write a short note on infertility.

Q.6 A) Answer any TWO of the following

8M

- i. Enlist and discuss reproductive system ducts in male.
- ii. Write a note on oogenesis and follicular development.
- iii. Draw a neat labeled diagram of testis

Q.6 B) Answer any ONE of the following

4M

- i. Write a note on electrolyte in body fluid.
- ii. Write a note on fluid compartments and fluid balance.
