

(3 Hours)

[Total marks 80]

N.B : (1) All questions are **Compulsory**

(2) Answer **all** sub questions **together**.

(3) **Draw neat labelled diagram wherever necessary.**

Q.1A) Answer the following

16M

- i. Define cardiac output.
- ii. Enlist the hormones that play an important role in female reproductive system.
- iii. The muscular wall of left ventricle is thickest as compare to other chamber of heart. Yes/No, justify.
- iv. Draw a neat labelled diagram of sperm.
- v. Write the composition of pancreatic juice.
- vi. Enlist the accessory digestive organ.
- vii. Write the difference between cortical nephron and juxtamedullary nephron.
- viii. Enlist the functions of kidney.

Q.1B) Answer the following

4M

- i. _____ layer of heart makes up about 95% of its part and is responsible for pumping action.
- ii. _____ is the site of sperm maturation, where they acquire motility and the ability to fertilize an ovum.
- iii. _____ secrete Pepsinogen and gastric lipase.
- iv. _____ are the contractile cells responsible for glomerular filtration.

Q.2 A) Answer any TWO of the following

8M

- i. Explain the events of cardiac cycle.
- ii. Write about the conducting system of heart.
- iii. Write a short note on chemoreceptor and baroreceptor regulation of blood pressure.

Q.2 B) Answer any ONE of the following

4M

- i. Write a note on Hypertension.
- ii. Write a note on angina pectoris.

Q.3 A) Answer any TWO of the following

8M

- i. Write the composition of saliva with the function of each ingredient.
- ii. Draw a neat labelled diagram of stomach.
- iii. Explain the mechanical and chemical digestion in small intestine.

Q.3 B) Answer any ONE of the following

4M

- i. Write a note on hepatitis.
- ii. Explain pathophysiology of Peptic ulcer.

Q.4 A) Answer any TWO of the following

8M

- i. Discuss the process of concentrated Urine formation.
- ii. Explain renin-angiotensin-aldosterone system.
- iii. Explain the mechanism of regulation of glomerular filtration rate.

Q.4 B) Answer any ONE of the following

4M

- i. Write a note on different types of renal calculi.
- ii. Write a note on glomerulonephritis.

Q.5 A) Answer any TWO of the following

8M

- i. Enlist different phases of menstrual cycle. Explain post-ovulatory phase.
- ii. Write a note on spermatogenesis.
- iii. Draw neat labelled 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 STD

Q.6 A) Answer any TWO of the following

8M

- i. Write the difference between artery and vein.
- ii. Write the functions of liver.
- iii. Write a short note on capillary exchange

Q.6 B) Answer any ONE of the following

4M

- i. Write a note on Oogenesis.
 - ii. Draw a neat labelled diagram of tooth.
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