

[Time: 3 Hours]

[Marks:70]

Please check whether you have got the right question paper.

- N.B:**
1. All questions are compulsory
 2. Figures to the right indicates full marks
 3. Draw neat and labeled diagram wherever necessary

- Q.1 A) Answer the following 12
- i) Define 'pre load and After load'
 - ii) What is myocardium composed of and what is its function?
 - iii) Name the substances reabsorbed and secreted from loop of henle?
 - iv) Differentiate between juxta medullary and cortical nephron
 - v) Villi and microvilli help in absorption in small intestine. Explain.
 - vi) What are the causes of peptic ulcer?
- B) Fill in the Blanks 3
- i. The aortic and pulmonary valves are known as the -----
 - ii. ----- clearance is an indicator of renal function
 - iii. Hepatopancreatic ampulla releases both----- and pancreatic juice
- Q.2 A) Answer ANY TWO of the following 8
- i. Draw a neat and labeled diagram of section of uterus
 - ii. Write a note on process of spermatogenesis
 - iii. Enumerate the role of oestrogen and progesterone
- B) Answer ANY ONE of the following 3
- i. Write a note on female infertility
 - ii. What is the influence of pituitary hormones on the ovarian changes
- Q.3 A) Answer ANY TWO of the following 8
- i. Draw a neat and labeled diagram showing conduction pathway of heart
 - ii. Discuss the anatomical features of capillary. Explain the mechanism of capillary exchange
 - iii. Draw a normal ECG. Explain the significance of segments and peaks. What is the implication of Q-T prolongation?
- B) Answer ANY ONE of the following 3
- i. Define Arrhythmia. What are its causes?
 - ii. Discuss the anatomical structure of artery with the help of neat and labeled diagram

TURN OVER

- Q.4 A) Answer ANY TWO of the following 8
- i. Draw neat and labeled diagram of section of kidney. Discuss the functions of kidneys.
 - ii. Discuss the absorption and secretion in the proximal convoluted tubules. 3
 - iii. Explain the phases of gastric secretion in detail
- B) Answer ANY ONE of the following
- i. Write a note on Urinary tract infection
 - ii. Explain in detail the causes, symptoms and treatment of chronic renal failure
- Q.5 A) Answer ANY TWO of the following 8
- i. Draw neat and labeled diagram of section of small intestine. Discuss the absorption and digestion of protein in small intestine
 - ii. Describe the process of digestion and absorption of fats across the GIT
 - iii. Enumerate the function of liver
- B) Answer ANY ONE of the following 3
- i. Write a note on Deglutition
 - ii. Define cholecystitis and cholelithiasis
- Q.6 A) Answer ANY TWO of the following 8
- i. State the pathophysiology of Hypertension
 - ii. Write a note on Baro receptor and Chemo receptor reflex.
 - iii. Describe the mechanism of HCl secretion and its regulation in the parietal cells of the stomach
- B) Answer ANY ONE of the following 3
- i. What is total peripheral resistance? What are the factors affecting it?
 - ii. Differentiate between stable and unstable angina
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