S.S.R. DEGREE COLLEGE, (AUTONOMOUS)

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I SEMESTER INTERNAL ASSESSMENT I EXAMINATIONS

DEPARTMENT OF MEDICAL LAB TECHNOLOGY (MLT)

QUESTION BANK

SUB: HUMAN PHYSIOLOGY PAPER-II

I. Multiple Choice Questions

1. The enzyme present in saliva that digests starch is: (B)
   a) Pepsin b) Ptyalin (Salivary amylase) c) Lipase d) Trypsin
2. The rhythmic movement of the esophagus that pushes food towards the stomach is: (C)
   a) Digestion b) Absorption c) Peristalsis d) Mastication
3. The gastric juice mainly contains: (A)
   a) Pepsin, HCl, Mucus b) Bile salts, Lipase, Amylase
   c) Trypsin, Chymotrypsin, Bicarbonates d) Ptyalin, Lipase, Water
4. The enzyme that initiates protein digestion in the stomach is: (B)
   a) Lipase b) Pepsin c) Ptyalin d) Trypsin
5. Which hormone stimulates the secretion of gastric juice? (B)
   a) Secretin b) Gastrin c) Cholecystokinin d) Insulin
6. The small intestine receives bile through which structure? (B)
   a) Pyloric sphincter b) Common bile duct
   c) Pancreatic duct d) Duodenum
7. Which enzyme digests fats in the small intestine? (B)
   a) Amylase b) Lipase c) Maltase d) Pepsin
8. The main site of absorption of nutrients is: (B)
   a) Stomach b) Small intestine c) Large intestine d) Rectum
9. Villi are present in: (C)
   a) Mouth b) Stomach c) Small intestine d) Large intestine
10. The hormone secretin is released in response to: (A)
    a) Acidic chyme in the duodenum b) Presence of proteins in the stomach
    c) High blood sugar levels d) Dehydration
11. The excretory system mainly removes: (C)
    a) Oxygen b) Carbon dioxide
    c) Nitrogenous wastes d) Enzymes
12. The functional unit of the kidney is: (A)
    a) Nephron b) Glomerulus c) Bowman's capsule d) Ureter

13. The process of urine formation begins with: (C)
    a) Tubular secretion b) Tubular reabsorption
    c) Glomerular filtration d) Micturition
14. The hormone ADH acts mainly on: (C)
    a) Stomach b) Liver
    c) Collecting ducts of kidney d) Small intestine
15. Aldosterone regulates: (B)
    a) Calcium absorption b) Sodium and water balance
    c) Protein digestion d) Urine color
16. Normal urine is mostly composed of: (B)
    a) Glucose and proteins b) Urea and salts dissolved in water
    c) Fats and bile salts d) Enzymes and hormones
17. The average daily urine output in a healthy adult is: (C)
    a) 200–300 ml b) 500–700 ml c) 1000–1500 ml d) 3000 ml
18. The condition of glucose in urine is called: (C)
    a) Hematuria b) Proteinuria c) Glycosuria d) Ketouria
19. The cystourethrogram is used to study: (C)
    a) Heart b) Lungs
    c) Urinary bladder and urethra d) Kidney filtration
20. Which hormone decreases urine output by increasing water reabsorption (B)
    a) Aldosterone b) ADH c) PTH d) Gastrin
21. Which structure of nephron collects the filtrate first? (B)
    a) Proximal convoluted tubule b) Bowman's capsule
    c) Loop of Henle d) Distal convoluted tubule
22. The main nitrogenous waste in human urine is: (C)
    a) Uric acid b) Creatinine c) Urea d) Ammonia
23. Which renal test is commonly used to evaluate kidney function? (C)
    a) Spirometry b) ECG c) Blood urea test d) EEG
24. The action of PTH on kidney leads to: (A)
    a) Increased calcium reabsorption b) Increased sodium excretion
    c) Decreased urea formation d) Increased protein synthesis
25. Which part of nephron is mainly responsible for concentration of urine? (B)
    a) Proximal convoluted tubule b) Loop of Henle
    c) Bowman's capsule d) Collecting duct

II. FILL IN THE BLANKS.

1. The enzyme present in saliva is **Ptyalin (Salivary amylase).**
2. The movement of food in the esophagus is called **Peristalsis**.
3. The hormone that stimulates secretion of gastric juice is **Gastrin**.
4. The partially digested food in the stomach is called **Chyme**.

5. The pancreas secretes **Amylase, Lipase and Trypsin**.
6. The liver secretes **Bile**, which helps in digestion of fats.
7. The finger-like projections in the small intestine are called **Villi**.
8. The valve between stomach and duodenum is **Pyloric sphincter**.
9. Protein digestion in the stomach is initiated by **Pepsin**.
10. The end product of carbohydrate digestion is **Glucose.**
11. The functional unit of the kidney is **Nephron**.
12. The first step of urine formation is **Glomerular filtration**.
13. The hormone that increases water reabsorption in kidneys is **ADH**.
14. Aldosterone mainly acts on the **Distal convoluted tubules** of nephron.
15. The normal pH of urine is around **6 (slightly acidic)**.
16. Presence of blood in urine is called **Hematuria**.
17. The daily average urine output in adults is about **1000–1500 ml.**
18. The hormone secreted by the posterior pituitary that controls urine volume is **ADH**.
19. The abnormal presence of protein in urine is called **Proteinuria.**
20. The main nitrogenous waste excreted in urine is **Urea.**
21. The hormone PTH helps in reabsorption of **Calcium** in kidney tubules.
22. The process of expelling urine from the body is called **Micturition.**
23. The test that records urinary bladder and urethra is **Cystourethrogram.**
24. The structure that collects the filtrate from glomerulus is **Bowman's capsule**.
25. The liquid waste product of excretion is **Urine**.

III. Descriptive Questions

1. Explain the physiology of digestion in the mouth, pharynx and esophagus.
2. Describe the composition of gastric juice and explain the process of protein digestion in the stomach.
3. Explain the activities occurring in the Small Intestine
4. Explain the process of urine formation with a neat labeled diagram of nephron.
5. Describe the properties and composition of normal urine.