

Note the below:

1. All the questions are compulsory.
2. Draw neat & suitable diagrams wherever necessary.
3. Figures to the right indicate full marks.

Q1. Choose the correct option & rewrite the statements:

(2 Marks each)

1. Excess amino acids are converted into urea in \_\_\_\_  
a. Kidney b. Liver c. Spleen d. Pancreas
2. Secretin hormone is produced in \_\_\_\_  
a. Stomach b. Intestine c. Liver d. Rectum
3. Absorption of digested food chiefly occurs in \_\_\_\_  
a. Stomach b. Colon c. Small Intestine d. Large Intestine
4. Pancreatic juice takes part in digestion of \_\_\_\_  
a. Proteins carbohydrate and fats b. Proteins and fats c. Protein, carbohydrate  
d. Proteins only
5. The enzyme trypsinogen is secreted from \_\_\_\_  
a. Duodenum b. Pancreas c. Liver d. Stomach
6. Lactose intolerance occurs due lack in secretion of \_\_\_\_ enzyme.  
a. Lipase b. Amylase c. Lactase d. Trypsin
7. Fructose is a \_\_\_\_  
a. Polysaccharide b. Monosaccharide c. Disaccharide d. Oligosaccharide
8. Peptic ulcer occurs due to infection, which caused by \_\_\_\_  
a. *E. Coli* b. *Salmonella enterica* c. *Clostridium* d. *Helicobacter Pylori*
9. Rib cage gets smaller as the rib muscles \_\_\_\_  
a. Contract b. Relax c. Shorten d. Expand
10. Air is composed of oxygen, carbon dioxide and gases like \_\_\_\_  
a. Argon b. Helium c. Nitrogen d. LPG
11. Voice box is also called as \_\_\_\_  
a. Pharynx b. Trachea c. Larynx d. None of the above
12. Bronchioles come after \_\_\_\_  
a. Trachea b. Bronchi c. Larynx d. None of the above
13. What is the unit of partial pressure?  
a. mm b. nm c. Hg d. mmHg
14. Partial pressure exerted by each gas = \_\_\_\_ pressure times the fractional composition of the gas in mixture.  
a. Total b. Partial c. Artificial d. Beneficial
15. Excess carbon dioxide causes the \_\_\_\_ of blood and other bodily fluids to decrease.  
a. Volume b. Viscosity c. pH d. Flow
16. \_\_\_\_ is a condition where kidneys get inflamed.  
a. Nephritis b. Brain tumour c. Diabetes d. Heart stroke
17. The kidney consists of triangular shaped structures inside them which are also called as \_\_\_\_  
a. Renal stones b. Renal pyramids c. Renal medulla d. Renal cortex
18. What could be found on the surface of a sterile instrument?  
a. Viruses b. Spores c. Microbes d. Nothing

19. The overuse of antibiotics has most likely resulted in the development of resistant strains of which organisms?  
a. Bacteria    b. Fungi    c. Protozoa    d. Viruses
20. In which organ system of the human body would a doctor most likely find a parasite?  
a. Skeletal system    b. Digestive system    c. Muscular system    d. Nervous system
21. Which aspect of modern life would most likely cause an epidemic to turn into a pandemic?  
a. Vaccination    b. Communication    c. Transportation    d. Sanitation
22. Which most likely spreads diseases such as rabies or Lyme disease?  
a. contact with an infected animal    b. contact with an infected human  
c. ingesting contaminated food    d. breathing contaminated air
23. Which disease-causing agent could quickly multiply into colonies of billions of cells in the space of a drop of water?  
a. Fungi    b. Virus    c. Bacteria    d. Protista
24. Which of these is most likely to be spread when two people drink from the same water bottle?  
a. Malaria    b. Hay fever    c. Asthma    d. Strep throat
25. What do viruses and bacteria have in common?  
a. They are both living    b. They both have DNA    c. They are both non-living  
d. Both have nothing in common

**Q2. Answer the following questions (Any 2)**

(10Marks)

1. Write a short note on peptic ulcer.
2. Describe the composition and function of intestinal juice.
3. Explain in detail absorption of lipid.
4. Explain in detail absorption of carbohydrate.

**Q3. Answer the following questions (Any 2)**

(10Marks)

1. With the help of an example explain tubular reabsorption and secretion process in nephron.
2. Explain the transport of sodium, potassium and chlorine in loop of henle.
3. How does transport of carbon dioxide take place in lungs?
4. Explain in detail the process of inhalation and exhalation.

**Q4. Answer the following questions (Any 2)**

(10Marks)

1. Elaborate on physical agents of sterilization used for microbial control methods.
2. What is culture media and also mention different types of media.
3. Explain sterilization and radiation examples with mechanism.
4. What is microbial growth and mention the common nutrients requirements of microorganisms?

**Q5. Answer the following questions (Any 4)**

(20Marks)

1. Describe the composition and function of bile juice.
2. With the help of diagrams explain the structure of nephron.
3. Explain disinfection and explain heat method in control of microbial growth.
4. Describe the composition and function of pancreatic juice.
5. Explain in short renal and neural regulation of GFR.
6. Explain sterilization with chemical methods phenol, halogens with examples.

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