Enrollment No._____

NAVRACHANA UNIVERSITY
a UGC recognized University

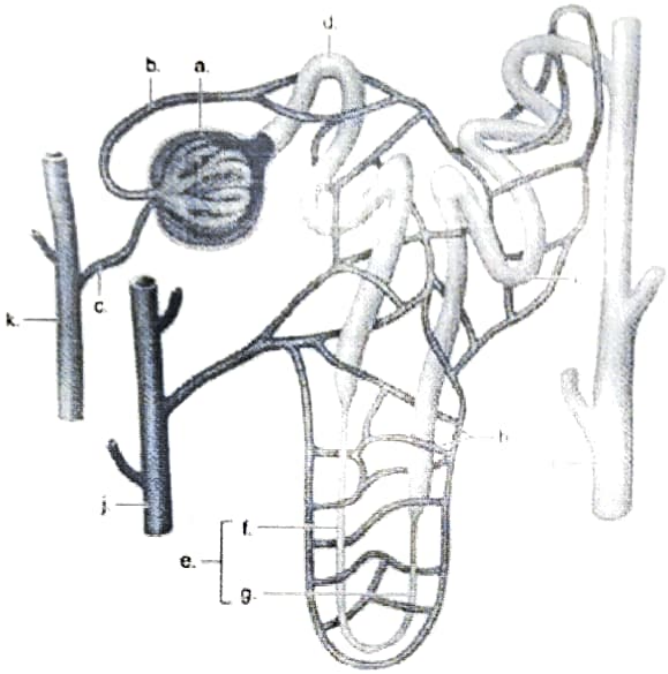
School: School of Science
Program/s: BSc
Year: 1st **Semester:** 1st
Examination: End Examination
Examination year: December 2022

Course Code: LS178 **Course Name:** Microbial, Plant and Animal Physiology
Date: 6/12/2022 **Total Marks:** 40
Time: 8:30 AM to 10:30 AM **Total Pages:** 2

Instructions:

- *All questions are compulsory.*
- *Draw neat labelled diagrams wherever required.*
- ** COs=Course Outcome mapping. # BTL=Bloom's Taxonomy Level mapping*

Q. No.	Details	Marks	COs*	BTL#
Q.1	**Answer in one word or sentence** 1. Capnophiles are the microbes growing in higher CO_2 levels in the air. True or False justify 2. Lymph contains water, cellular components, electrolytes and microbes. Comment on the sentence. 3. Name the process because of which crystals of KMnO4 added to water makes it purple. 4. What is the water potential of pure water? 5. About 10 percent of water loss from plants takes place through _____ by the process known as ____ transpiration. 6. Pneumatophores shows negative _____ 7. What is the function of salivary gland? 8. Stomach inner region starts from mucosa, submucosa, muscularis and serosa. True or false. justify 9. Kidney is capable to make a hormone. True or false. Justify 10. All bacteria's are harmful in nature, True or false. Justify 11. Pancreatic duct helps in exocrine secretion. True or false. Justify 12. Hypertonic solution results in swollen RBC. True or False , justify	12	CO1, CO2, CO3, CO4	BT1, BT2, BT3
Q.2	Answer the questions in brief (2*5=10) 1. State any two type of cells found in the stomach and explain their function. 2. What are biofilms? Are they beneficial? 3. Explain carrier mediated active transport. 4. Transpiration is a necessary evil. Justify the statement if you agree or disagree. 5. Give difference between tropism movements and nastic movements with suitable examples	10	CO1, CO2, CO3, CO4	BT1, BT2, BT3
Q.3	**Answer the questions in details (4* 3=12)** 1. What is composition of blood and explain its cellular components?	12	CO1,CO2 CO3,	BT1, BT2,BT3

	2. Give an account on the macro and micronutrients required for growth of microorganism. 3. Explain the relationship between cellular respiration and photosynthesis. 4. Why plant cell is known as a good osmotic system?			
Q.4	**Identify the following regions and label (6 M)** 	6	CO1, CO3	BT1, BT2, BT3

**********End of Question Paper**********