

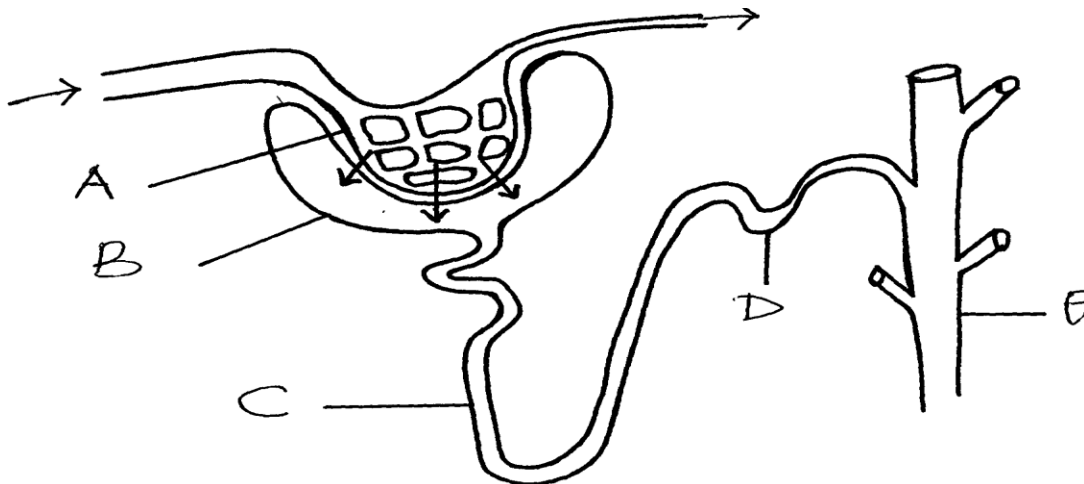
BARICHO BOYS HIGH SCHOOL

FORM 2 BIOLOGY AUGUST HOLIDAY ASSIGNMENT 2019

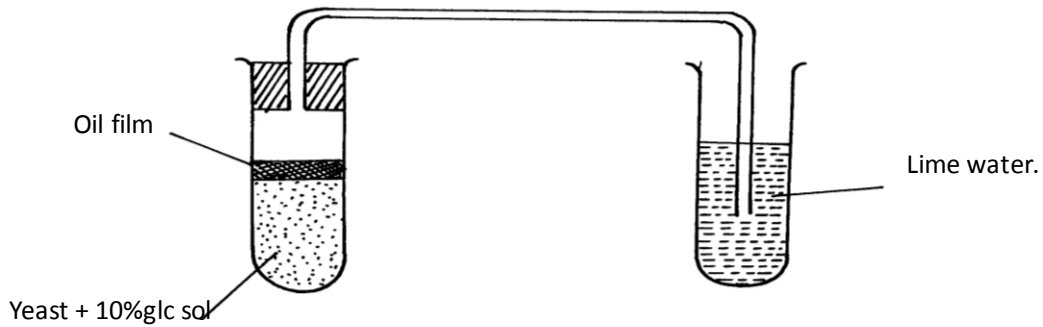
1. Differentiate between excretion and Homeostasis
2. Describe the process of urine formation
3. The table below shows the concentration of different substances in the glomerular filtrate and urine. Study the table and answer the questions that follow

Substance	Concentration in the glomerular filtrate (5)	Urine %
Water	93	95
Proteins	0.0	0.0
urea	0.003	2.0
Glucose	0.1	0.0
Sodium	0.3	0.35

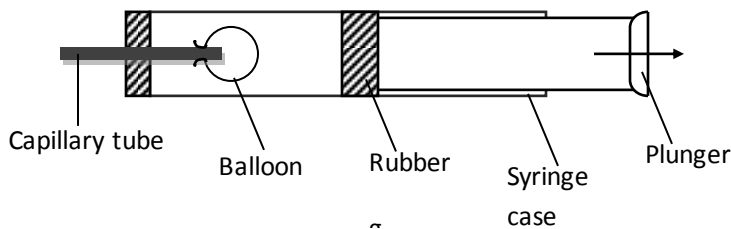
- a) Give any reason for the difference in the concentration of water in glomerular filtrate and in urine
 - b) Explain the absence of protein from both the glomerular filtrate and urine
 - c) (i) Which substance is reabsorbed with: Highest efficiency, - lowest efficiency
ii) Under what condition does glucose appear in urine?
4. The diagram below shows part of a mammalian kidney Nephron



- a). Name parts A – E
 - b). State two factors which make the fluid in capsular space leave part A.
 - c). Which term refers to the movement of the fluid from part A into capsular space?
5. Study the experiment below and answer the questions that follow.



- a). State the aim of the experiment
 - b). What observations would be made, in each of the tubes at the end of the experiment?
 - c). Account for the observations you have stated in (b) above
 - d). Write a balanced chemical equation for the reaction that took place.
6. The figure below represents a model of chest cavity.



- a). Name the parts of a real chest cavity that are represented by:
 - i) capillary tube (ii) Balloon (iii) Rubber
 - b). Why is the syringe not a true representative of the rib cage?
7. Explain the following:
- i). Active transport cannot take place where there is no respiration
 - ii). Non – variegated leaves accumulate more food than variegated leaves.