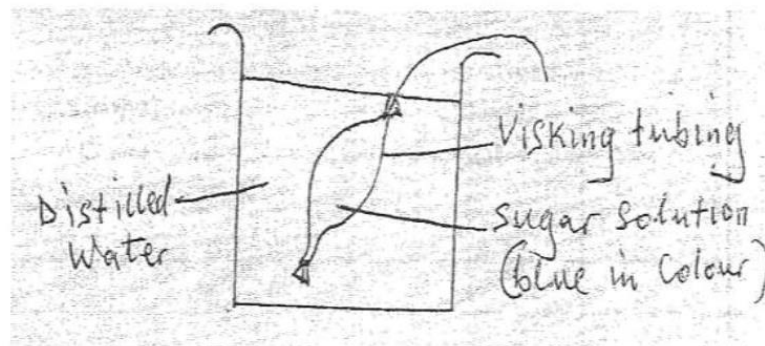


NAME:

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MILLENIUM SCIENCE CAFE**S.3 BIOLOGY NOVEMBER ASSESSMENT TEST 2****TOPICS: MOV'T IN & OUT OF CELLS & TRANSPORT IN PLANTS AND ANIMALS****TIME: 60 MINUTES****INSTRUCTIONS: Attempt all questions.**

1. In an experiment, a visking tubing was half filled with concentrated sugar solution containing methylene blue dye. Both ends were tied well to prevent leakage. It was rinsed with distilled water and immersed in a beaker containing distilled. The setup is shown in figure below. After 6 hours, the water in the beaker turned blue and visking tubing was swollen with more solution.



- (a). Explain why the visking tubing was swollen with solution at the end of the experiment. (03 marks)
- (b). Name the process through which Water in the beaker turns blue (01 mark)
- (c). What is meant by the following terms (06 marks)
- | | |
|-------------------------|--------------------------|
| (i) Diffusion | (iv) Hypertonic solution |
| (ii) Active transport | (v) Hypotonic solution |
| (iii) Isotonic solution | (vi) Cytosis |
- (d). State 2 roles of active transport in the human body. (02 marks)
- (e). Describe what would happen to a red blood cell when placed in a hypotonic solution (03 marks)
2. (a) What is transpiration? (01 mark)
- (b) State any four factors affecting the rate of transpiration. (02 marks)
- (c) Give three advantages and 2 disadvantages of transpiration to plants? (05 marks)
- (d) Describe the adaptations of Xerophytes to living in extremely dry conditions (07 marks)
3. (a) With examples in (i) and (ii), distinguish between;
- | | |
|---|------------|
| (i) Open Blood circulation and closed blood circulation. | (03 marks) |
| (ii) Single Blood circulation and Double blood circulation. | (03 marks) |
| (iii) Pulmonary blood circulation and Systematic blood | (02 marks) |
- (b). Describe the functions of blood as a transport medium in man. (07 marks)

END!!!!***“The secret to success without hard work, is still a secret”*****BIOLOGY TOPICAL REVISION BOOKS BY B.K JOSH PUBLICATIONS!!!!**