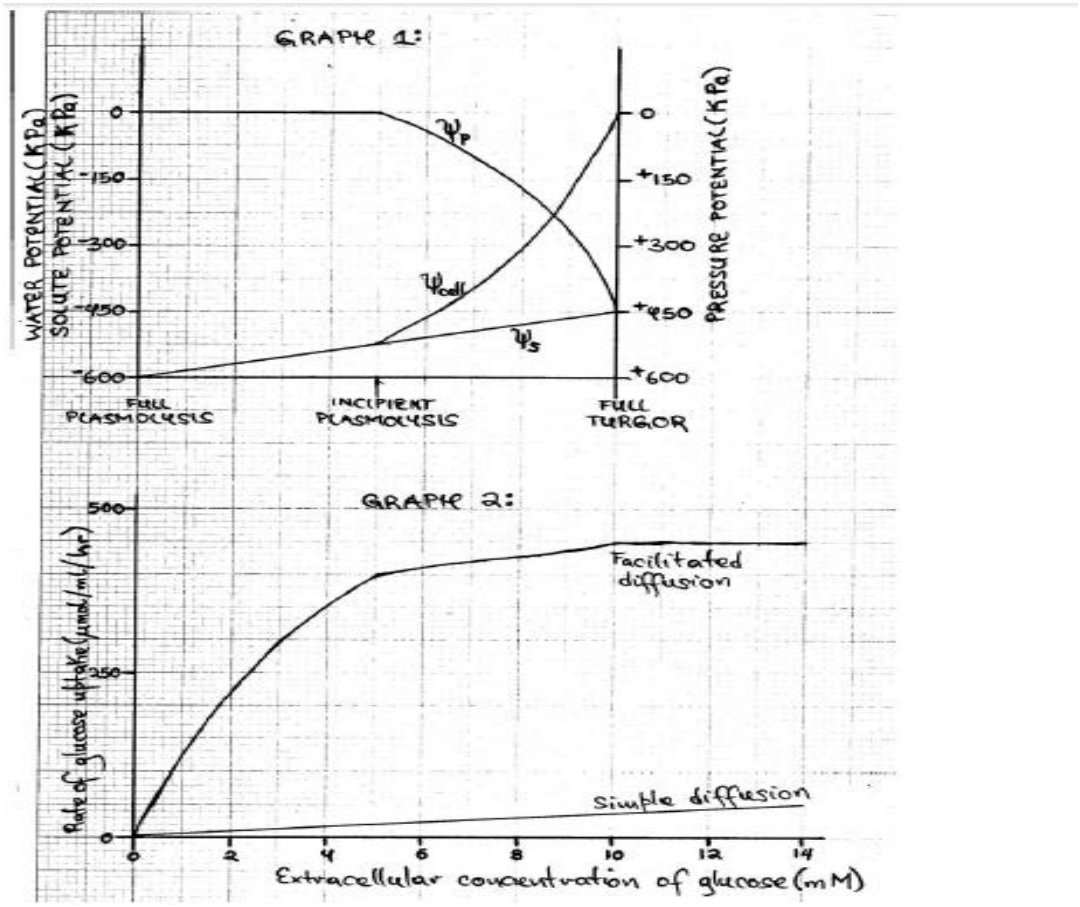
NAME: ……..... SIGNATURE: …….

S.5 BIOLOGY TOPICAL TEST ON MOVEMENT IN & OUT OF CELLS

INSTRUCTIONS: *Attempt all questions.* TIME: 60 MINUTES

SECTION A

1. **Graph 1** shows changes in the different potentials of a fully plasmolysed plant cell placed in a hypotonic solution, and **Graph 2** shows the rate of uptake of glucose by blood using simple and facilitated diffusion at varying extracellular concentration of glucose.



(a) Describe the changes in:
 (i) Pressure potential, and **(03 marks)**
 (ii) Water potential from full plasmolysis to full turgor. **(03 marks)**

(b) Explain the changes in:
 (i) Pressure potential, and **(09 marks)**
 (ii) Solute potential from full plasmolysis to full turgor. **(03 marks)**

(c) Compare the effect of increasing extracellular concentration of glucose on the rates of uptake of glucose by simple and facilitated diffusion. **(02 marks)**

(d) Explain the effect of increasing extracellular concentration of glucose on the rate of uptake of glucose when the diffusion is facilitated. **(11 marks)**

(e) Outline the differences between the functioning of carrier proteins in facilitated diffusion and those in active transport. **(03 marks)**

(f) Give reasons why
 (i) Facilitated diffusion occurs **(03 marks)**
 (ii) The cell membrane is able to carry out facilitated diffusion **(03 marks)**

END!!!!

"The secret to success without hard work, is still a secret"