**BIOLOGY FORM II EXAM**

 **END OF TERM 2- 2021**

**TIME: 2 HRS**

**NAME……………………………………………………CLASS. ……………………………………**

**ADM. NO. ………………………………………………DATE………………………………………**

**QUESTIONS**

1. The diagram below represents a transverse.

Section of a young stem.



1. Name the parts labeled A and B (2mks)
2. State functions of the part labeled C, D, E. (3mks)

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1. a) Why are people with blood group O universal donors. (2mks)

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b) A person with blood group AB requires blood transfusion. Name blood groups of

 the donor. (2mks)

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1. a) Name the type of circulatory system found in insects (1mk)

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b) Name the blood vessel that transports blood from

1. Small intestine to the liver. (1mk)

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1. Lungs to the heart. (1mk)

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c) In what form is oxygen transported from the lungs to the body tissues? (1mk)

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1. Distinguish between natural and acquired immunity. (2mks)

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1. State four functions of blood other than transport. (4mk)

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1. Name the antigens that determine human blood groups. (2mks)

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1. State structural differences between arteries and veins. (6mks)

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1. Give reasons for carrying out the following procedure when making temporary slides.
2. Making thin sections. (1mk)

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1. Adding water to the sections. (1mk)

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1. Placing coverslip over the plant section. (1mk)

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1. a) Distinguish between diffusion and osmosis. (2mks)

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b) The diagram below show a red blood cell that was subjected to certain treatment.

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**At start At end**

Account for the shape of the cell. (2mks)

1. a) Name the material that strengthens xylem vessels. (1mk)

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 b) Name the tissue that is removed when the bark of the dicotyledonous stem is ringed(1mk)

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11. a) State what happens during light stage of photosynthesis. (4mks)

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 b). What are the end products light stage. (2mks

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12. State 2 factors affecting enzymatic activities. (4mks

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13. How does the following affect the rate of diffusion:

1. Diffusion gradient. (2 mk)

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1. Size of the molecules (2 mk)

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1. Thickness of the membrane. (2 mk)

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1. Temperature (2mks)

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1. Surface area to volume ration. (2mks)

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14. Explain how the following factors determine the daily energy requirements

1. Age (2mks)

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1. Occupation (2mks)

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1. Sex (2mks)

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15. Name the appropriate food substances for each of the following enzymes.

1. Ptyalin. (2mks)

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1. Pepsin. (2mks)

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b). State the two roles of mucus in the stomach. (2mks)

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16. a) State 3 adaption of xylem to its function. (3mks)

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b) Describe how 4 environment factors affect the rate of transportation. (8mks)

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17.a) State the difference between closed and open circulatory system. (2mk)

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b).State two ways in which the heart muscles are adapted to their functions. (2mks)

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18. State the role of the following organelles. (6mks)

1. Golgi apparatus

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1. Ribosomes

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a. Golgi apparatus

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1. Lysosomes

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1. Mitochondrion

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1. Chloroplasts

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1. Centrioles

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