**END OF TERM 2 2019**

**BIOLOGY PRACTICAL**

**FORM 4 231/3**

**NAME……………………………………………………………………. CLASS……….. ADM.NO………**

**ANSWER ALL QUESTIONS**

**Q1. You are provided with the following reagents and food samples**

1. Iodine solution with a dropper
2. Benedicts solution with a dropper
3. Dilute hydrochloric acid with a dropper.
4. Sodium hydrogen carbonate with a dropper.
5. Solution E
6. Food substance F
7. Food substance G
* 3droppers
* A test tube holder
* a Bunsen burner
* 4 Empty test tubes

**Procedure**

1. Divide food substance F into two.To one half add solution E;label it F2 Place one half in a hot water bath for 25 minutes.
2. Use the second portion of F1, food substance G and reagents provided to carry out a food test: record your procedures,Observations and conclusions in the table below.(12mks)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Food substance | test | procedure | observation | conclusion |
|  |  |  |  |  |

1. Use the last portion of solution F and the
2. reagent provided to carry out a food test: Record your observations in the table below:-

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Food substance | test | procedure | observations | conclusions |
|  |  |  |  |  |

1. Predict the identity of solution E (1 mk)

(2) a (i) Identify the plant parts from which the specimens. A, B and C were obtained. (1 mk)

 (ii) Give two reasons for your answer in (i) above. (2mks)

(b)Differentiate specimens B and C using observable features. (3 MKS)

|  |  |
| --- | --- |
|  SPECIMEN B | SPECIMEN C |
|  |  |

1. Suggest the classes of plants from which specimens A and B were obtained. Give reasons for your answers. (4 mks)
2. State three features of specimen C that adapts it for its function. (3mks)

Q3. The photograph below shows a section of a mammalian organ and associated vessels. Examine it and use it to answer the following questions.



1. Name the organ. (1 mk)
2. Name the parts labeled. (6 mks)

S –

T –

V –

P –

Q –

R –

1. State the function of the vessel labeled: (3 mks)

P –

Q –

R –

1. Name the two parts of the nephron that are found in the part labeled S. (2 MKS)