**NAME:............................................................................. STREAM:..........................**

**SIGNATURE:.....................................................**

**553/2**

**Biology**

**Practical**

**Paper 2**

**2hours**

**Uganda Certificate of Education**

**PRE - MOCK EXAMINATION**

**BIOLOGY PRACTICAL**

**PAPER 2**

**2 HOURS**

**Instructions to Candidates;**

* *Answer all**questions.*
* *Drawings should be made in the spaces provided.*
* *Use sharp pencils for your drawings.*
* *Work on additional sheets will not be marked.*

**FOR EXAMINER’S USE ONLY.**

|  |  |  |
| --- | --- | --- |
| **Question** | **Marks** | **Examiner’s signature** |
| 1 |  |  |
| 2 |  |  |
| 3 |  |  |
| **Total** |  |  |

1. You are provided with solution M and N. Solution M contains food nutrients. You are required to determine the food nutrients in solution M an investigate the action of solution N on M.

a) Carry out tests on solution M to identify the food nutrients. Record your tests, observations and deductions I the table below.

|  |  |  |
| --- | --- | --- |
| **TESTS** | **OBSERVATIONS** | **DEDUCTIONS** |
| i) **Iodine test** |  |  |
| ii) **Benedict’s test** |  |  |
| iii) **Test for proteins** |  |  |
| iv) **Vitamin C test** |  |  |

b) Add 1cm3 of solution M to 1cm3 of solution N in a test tube. Incubate in a water bath maintained at 35 – 400C for 30minutes. After 30 minutes, remove the test tube and carry out a Benedict’s test on the mixture. Record your name of test, observation and deduction in the table below. (4marks)

|  |  |  |
| --- | --- | --- |
| **NAME OF TEST** | **OBSERVATIONS** | **DEDUCTIONS** |
|  |  |  |

c) Explain your results in (b) ( 1 ½ marks)

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d) Giving a reason, suggest the identity of the active ingredient in solution N. (1½ marks)

Identity ………………………………………………………………………………………….

Reason ………………………………………………………………………………………….

……………………………………………………………………………………………………

2. You are provided with specimens, **P, Q** and **S**. Open up **P** and **S** longitudinally

a) Giving a reason in each case, state the type of fruit each specimen is. (6marks)

i) Specimen P

Reason ……………………………………………………………………………………….

……………………………………………………………………………………………………

ii) Specimen Q

Reason …………………………………………………………………………………………..

……………………………………………………………………………………………………

iii) Specimen S

Reason …………………………………………………………………………………………

……………………………………………………………………………………………………

b) i) State the mode of dispersal for specimen P. (1mark)

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ii) Describe how each specimen is dispersed. (6marks)

P …………………………………………………………………………………………………

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Q …………………………………………………………………………………………………

…………………………………………………………………………………………………………………………………………………………………………………………………………

S …………………………………………………………………………………………………

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c) Draw and label a longitudinal section of P. State your magnification.

(7marks)

3. You are provided with specimens X, Y and Z. Examine them carefully and use them to answer the following questions.

a) Identify each of the specimens giving reasons for your identity in each case.

(4½ marks)

i) X ……………………………………………………………………………………………..

Reasons ……………………………………………………………………………………….

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ii) Y ……………………………………………………………………………………………..

Reasons ……………………………………………………………………………………….

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b) From which region of the body is each specimen obtained. (1½ marks)

X ……………………………………………………………………………………………

Y ……………………………………………………………………………………………

Z ……………………………………………………………………………………………

c) State 2 adaptations of each of the specimens to its functions. (6marks)

Specimen X ………………………………………………………………………………….

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Specimen Y …………………………………………………………………………………….

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

Specimen Z …………………………………………………………………………………..

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d) Give 3 structural differences between specimen X and Y. (3marks)

|  |  |
| --- | --- |
| X | Y |
| i) |  |
| ii) |  |
| iii) |  |

e) Draw and label the posterior view of specimen X in the space provided. (5marks)

**END**