**NAME ……………………………………… INDEX……………............................**

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

**231/1**

**BIOLOGY**

**PAPER 3**

**PRACTICAL**

**1 ¾ HOURS**

**FORM 4**

**Answer all questions**

**FOR EXAMINORS ONLY**

|  |  |  |
| --- | --- | --- |
| **Question** | **Maximum Score** | **Candidates score** |
| **1-3** | **40** |  |

***Candidates should check the question paper to ensure that all the pages are printed as indicated and no questions are missing.***

**1.** Study the photographs given below to answer the questions that follow

**(a)** You are provided with photographs of specimens labeled **X, Y** and **Q** . Study them carefully and answer the questions that follow.



Identify the specimen

**X........................................................................**

**Y......................................................................**

**(b)**  Name the part (Description) of the mammalian body from which the specimen X was

obtained **(1 mark)**

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**(c)** With reasons name the type of joint formed at the Proximal and distal ends of specimen Q

Proximal end **(1 mark)**

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Reason **(1 mark)**

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Distal end **(1 mark)**

**....................................................................................................................................................**

Reason **(1 mark)**

**..................................................................................................................................................................................................................................................................................................................**

**d)** **(i)** What is the significance of the part labeled W? **(2 marks)**

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(ii) The photograph below labeled **P** was obtained from a certain mammal.

Giving reasons, state the diet of the animal whose skull is shown in the photographs. **(2 marks)**

Diet

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Reason(s)

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**(e)** Label the canine tooth in photograph **Q.**  **(1 mark)**

**(f)** Write the dental formula of the animal whose skulls is shown in photographs **Q.** **(1 mark)**

**(g)** In the photograph show the carnassials teeth and state one ways in which they are adapted to

 their function. **(3 marks)**

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**2.** You are provide with

Specimen **S1**

Specimen **T1**



**T1**

**(a)** Specimen SI was cut longitudinally as shown below.



 **I** Name the parts labelled **S2 S3 S4 and S5**

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**II** Using photograph T2, T3T4and T5

List **five** differences between specimen S1 and T1

|  |  |
| --- | --- |
| Specimen S1  | Specimen T1 |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

**b. (i)** Complete the following table showing the type of fruit and reasons for each answer

  **(6 marks)**

|  |  |  |
| --- | --- | --- |
| Specimen S1 | Type of fruit  | Reasons  |
|  |  |  |
|  |  |  |

**(ii)** Complete the following the method of dispersal and reasons for each answer

|  |  |  |
| --- | --- | --- |
| Specimen | Method of dispersal | Reasons  |
| S1 |  |  |
| T1 |  |  |

**3.** Meiosis occurs in two nuclear divisions. State what happens during the first and the second nuclear divisions stages

**a)** 1st division \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2nd \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **(2 marks)**

**b)** Identify the following stages of meiosis 1.  **(4 marks)**



**c)** During what stage of meiosis does synapsis occur  **(1 mark)**

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**d)** State the significance of the event mentioned **(1 mark)**

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