**LIFE SCIENCES**

**GRADE 10**

**Practical Task Term 3 2024: Mitosis and Plant Tissues**

**Marking Guidelines**

|  |  |  |
| --- | --- | --- |
| **Question 1: Mitosis** |  |  |
|  |  |  |
| **1.1 B C A ✓ ✓** | (2) |  |
|  |  |  |
| **1.2 B-** Chromosomes are visible**✓** | (1) |  |
| **C -** Chromosomes are aligned at the equator.**✓** | (1) |  |
| **A –** Chromosomes are being pulled apart **✓** | (1) |  |
|  |  |  |
| **1. 3** |  |  |
| **Telophase** |  |  |
|  |  |  |
| |  |  |  | | --- | --- | --- | | **Description** | **Code** | **Marks** | | Correct name of Phase | **P** | 1 | | Each cell has 4 chromosomes | **C** | 1 | | Correct diagram showing TWO cells  Nuclear membrane  Centrosome | **D** | 1 | | Must show constriction/ invagination | **F** | 1 | | Any ONE correct label. | **L** | 1 | | TOTAL |  | **5** | |  |  |
|  | **(10)** |  |
| **QUESTION 2: Plant Tissues** |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| 2.1 | A Collenchyma**✓**  C Sclerenchyma**✓** | (1)  (1) |  |
| 2.2 | |  |  | | --- | --- | | **Cells A / Collenchyma** | **Cells C / Sclerenchyma** | | Walls are unevenly thickened | Walls are evenly thickened**✓** | | Cells have nuclei | Cells have no nuclei**✓** |     **✓** Table | (3) |  |
| 2.3 | Acts as packing tissue**✓** |  |  |
|  | Stores water, sugar, and starch**✓** |  |  |
|  | Intercellular air spaces allow for gaseous exchange and water to pass through the tissue. **✓**  Any | (2) |  |
|  |  | **(7)** |  |
|  |  |  |  |
|  | **Question 3 : Cancer** |  |  |
| 3.1 | Cells dividing uncontrollably by mitosis **✓** to form a mass **✓**/ tumour | (2) |  |
| 3.2 | Surgery, Radiotherapy, ChemotherapyAny | (2) |  |
|  |  | (3) |  |
| 3.3 | **A -**Age group of Men **✓** |  |  |
|  | **B –** Number of Men **✓** |  |  |
|  |  |  |  |
| 3.4 | 60-69 **✓** age group |  |  |
|  |  |  |  |
| 3.5 | 1000 **✓** - 100 **✓** = 900 **✓** | (3) |  |
|  |  |  |  |
| 3.6 | The number of men that die from lung cancer increases as the age increases **✓** after 69 **✓** years, the number of deaths decreases **✓** | (3) |  |
|  |  | **(13)** |  |
|  | **TOTAL** | **[30]** |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |