 Province of the

EASTERN CAPE

EDUCATION

**DIRECTORATE SENIOR CURRICULUM MANAGEMENT**

**(SEN-FET)**

**HOME SCHOOLING SELF-STUDY WORKSHEET ANSWER SHEET**

|  |  |  |  |  |  |
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| **SUBJECT** | LIFE SCIENCES | **GRADE** | 12 | **DATE** | 07 April 2020 |
| **TOPIC** | INHERITANCE OF BLOOD GROUPS (MULTIPLE ALLELES)  Drop Talking Stock Illustrations – 327 Drop Talking Stock ... | **TERM 1**  **REVISION** |  | **TERM 2 CONTENT** | 🗸 |

WORKSHEET : INHERITANCE OF BLOOD GROUPS

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| --- | --- | --- |
| 1.1 | IBIB🗸 | (1) |
| 1.2 | IA i🗸 | (1) |
| 1.3 | ii🗸 | (1) |
| 1.4 | IA i🗸 | (1) |
| 1.5 | IAIB🗸 | (1)  **(5)** |

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| 2. | |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | | P1 | Phenotype | | Group B | | x | Group O🗸 | |  | Genotype | | IBi | | x | ii🗸 | | *Meiosis* |  | |  | |  |  | |  | G/gametes | | IB , i | | x | i, i🗸 | | *Fertilisation* |  | |  | |  |  | | F1 | Genotype | | IBi ; IBi ; ii ; ii🗸 | | | | |  | Genotypic ratio | | 1 IBi : 1 ii🗸\* | | | | |  | Phenotype | | 1Group B : 1 Group O🗸\* | | | | | P1 and F1🗸 |  |  | |  | | | | Meiosis and fertilisation🗸 | | | | 2 Compulsory + Any 4 | | |   **OR**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | P1 | Phenotype | Group B | | x | Group O🗸 | |  | Genotype | V | | x | ii🗸 | |  |  |  | | | | | *Meiosis* |  | |  |  |  | | --- | --- | --- | | Gametes | IB | i | | i | IBi | ii | | i | IBi | ii |   1 mark for correct gametes  1 mark for correct genotypes\* | | | | |  |  | | *Fertilisation* |  | |  |  | |  | Genotypic ratio | 1 IBi : 1 ii🗸\* | | | | | F1 | Phenotype | 1Group B : 1 Group O🗸\* | | | | | P1 and F1🗸 |  |  |  | | | | Meiosis and fertilisation🗸 | | | 2 Compulsory + Any 4 | | | |  | | | | | | | (6) |

|  |  |  |  |
| --- | --- | --- | --- |
| 3.1 | One🗸/1 |  | (1) |
| 3.2 | Mrs Thomas🗸 |  | (1) |
| 3.3 | - The child has the genotype ii🗸/ is homozygous and  - if both the parents are heterozygous🗸/ have the genotypes IAi or IBi  - she inherits one recessive allele from each parent🗸 |  | (3)  **(5)** |

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|  |  | [16] |