**GRADE 12 2022**

**ASSIGNMENT TERM 3**

**MARKING GUIDELINES TOTAL: 50**

|  |  |  |
| --- | --- | --- |
| **QUESTION 1** | |  |
|  | |  |
| 1.1 | Million years ago 🗸 | (1) |
| 1.2 | (a) C 🗸/A  (b) A 🗸  (c) B 🗸 | (1)  (1)  (1) |
| 1.3 | Various hypotheses relating to evolution have been tested and verified over  time 🗸/has undergone several tests and is supported by evidence | (1) |
| 1.4 | - Biogeography 🗸  - Genetics 🗸  - Modification by descent 🗸/homologous structures  - Fossils 🗸  - Cultural 🗸 (Any 3 x 1)  **(Mark first THREE only)** | (3) |
|  |  | **(8)** |
|  |  |  |
| **QUESTION 2** | |  |
| 2.1 | (a) A ✓  (b) B ✓  (c) A ✓  (d) B ✓ | (4) |
|  |  |  |
| 2.2 | Breeding at different times of the year ✓ | (1) |
|  |  | **(5)** |
| **QUESTION 3** | |  |
| 3.1 | (a) Percentage of attacks. ✓ | (1) |
|  | (b) 24–26✓% *(check final print copy) (accept range)* | (1) |
|  | (c) (78 - 76) – (27 - 25) ✓  = (53 – 49) ✓% | (2) |
|  | (d) - Sand dunes are lighter /inland fields are darker ✓.  on sand dunes brown fur more visible than white fur to predators✓/ white  fur on inland fields more visible to predators compared to brown fur  - More brown mice attacked on dunes compared to white mice✓/  more white mice attacked inland compared to brown mice  - 70% brown mice attacked on coast vs 20% inland✓ / 70% white mice  attacked inland vs 20% on coast | (4) |
| 3.2 | - There is a great deal of variation in the fur colour amongst the offspring. ✓  - Some have white fur and some have brown fur. ✓   * Mice with lighter fur colour had better camouflage against white sand, ✓ * whiter mice had greater chance of surviving/ avoiding predation, ✓ * whilst brown mice will be less suited and more prayed on, die. ✓ * The white mice that survive, reproduce ✓ * and thus, pass on the allele for white fur colour to their offspring. ✓ * The next generation will therefore have a higher proportion of individuals with white fur colour ✓ (any 5) | (5) |
| 3.3 |  | (7) |
|  |  | **(20)** |
| **QUESTION 4** | |  |
|  |  |  |
| 4.1 | *Palaeomastodon* ✓ (Must be underlined; start with a capital letter) | (1) |
| 4.2 | *Elephas* ✓  *Loxodonta* ✓ | (2) |
| 4.3 | *Primelaphus* ✓ | (1) |
| 4.4 | a) Miocene ✓ | (1) |
|  | b) Pleistocene ✓ | (1) |
| 4.5 | 38 – 24 ✓  = 14 ✓ million years ✓ | (3) |
|  |  | **(9)** |
| **QUESTION 5** | |  |
| 5.1 | Gall size🗸 | (1) |
| 5.2 | There is a range of intermediate values🗸in gall size | (1) |
| 5.3 | **Guideline for the assessing of the graph**   |  |  |  | | --- | --- | --- | | **CRITERIA** | **ELABORATION** | **MARK** | | Correct type of graph **(T)** | Line graph drawn | 1 | | Caption of graph **(C)** | Both variables included | 1 | | Axes labels **(L)** | Correct label and units in X- and Y-axis | 1 | | Scale for X- and Y-axis **(S)** | Equal spacing between intervals for each axis | 1 | | Plotting of points **(P)** | 1 to 4 points plotted correctly  All 5 points plotted correctly | 1  2 | | (6) |
|  |  | **(8)** |
|  |  | **[50]** |

**Assignment Term 3**

**Weighting: Practical Skills**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Practical Skills** | | | | | | |
| **Follow instructions** | **Handle equipment** | **Make observations** | **Draw a diagram** | **Calculation** | **Interpret** | **Design/Plan** |
|  |  | ✓ | ✓ | ✓ | ✓ | ✓ |

**Weighting: Cognitive Levels**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Question** | **Cognitive Levels** | | | | **Levels of difficulty** | | | |
| **Level A**  **Knowledge** | **Level B**  **Understanding** | **Level C**  **Application** | **Level D**  **Evaluate, analyse & synthesize** | **Easy** | **Moderate** | **Difficult** | **Very difficult** |
| 1.1 | 1 |  |  |  | 1 |  |  |  |
| 1.2 |  |  | 3 |  |  | 3 |  |  |
| 1.3 | 1 |  |  |  | 1 |  |  |  |
| 1.4 | 3 |  |  |  | 3 |  |  |  |
| 2.1a-d |  | 4 |  |  |  | 4 |  |  |
| 2.2 |  | 1 |  |  | 1 |  |  |  |
| 3.1a |  |  | 1 |  |  |  | 1 |  |
| 3.1b |  | 1 |  |  | 1 |  |  |  |
| 3.1c |  | 2 |  |  |  | 2 |  |  |
| 3.1d |  |  |  | 4 |  |  | 4 |  |
| 3.2 | 2 |  | 3 |  |  | 5 |  |  |
| 3.3 | 7 |  |  |  | 7 |  |  |  |
| 4.1 |  |  | 1 |  | 1 |  |  |  |
| 4.2 |  |  | 2 |  | 2 |  |  |  |
| 4.3 |  |  | 1 |  | 1 |  |  |  |
| 4.4a |  |  | 1 |  | 1 |  |  |  |
| 4.4b |  |  | 1 |  | 1 |  |  |  |
| 4.5 |  | 3 |  |  | 1 |  |  |  |
| 5.1 |  |  |  | 1 |  |  | 1 |  |
| 5.2 |  |  | 1 |  |  | 1 |  |  |
| 5.3 | 1 | 2 | 3 |  | 2 | 4 |  |  |
| **Total** | **15** | **13** | **17** | **5** | **25** | **19** | **6** | **0** |
| **Percentage** | **30** | **26** | **34** | **10** | **50** | **38** | **12** | **0** |