education

Department:
Education
PROVINCE OF KWAZULU-NATAL

LIFE SCIENCES

MARKING GUIDELINE

MARCH 2020

NATIONAL SENIOR CERTIFICATE

GRADE 11

MARKS: 60

TIME: 1 hour

This marking guideline consists of 5 pages.

SECTION A

QUESTION 1

1.1

1.1.1 D ✓✓
1.1.2 D ✓✓
1.1.3 A ✓✓ (3 x 2) **(6)**

1.2

1.2.1 A only ✓✓
1.2.2 B only ✓✓
(2 x 2) **(4)**

1.3 1.3.1 Pteridophyte ✓ (1)

1.3.2 Sporophyte✓ (1)

1.3.3 Prothallus ✓ (1)

1.3.4 Rhizome✓ (1)

1.3.5 Stores food in a form of starch and proteins. ✓ (1)
(Mark the first ONE only)

1.3.6 Gametophyte generation depends on water for fertilization. ✓
Sperm require water to swim to the ova for fertilization. ✓ (2)

1.3.7 True roots, stems and leaves. ✓
Have vascular tissues present ✓/xylem and phloem present✓
Leaves are covered by cuticle✓ (3)
(Mark the first THREE only) **(10)**

TOTAL SECTION A: 20

SECTION B

QUESTION 2

2.1

2.1.1 The presence/absence of petals increase/decrease the chances for pollination✓✓

OR

The presence/absence of petals has no effect on pollination✓✓ (2)

2.1.2 Type of flower✓ (1)

2.1.3 - Flowers were taken from the same plant✓
- Plants were exposed to pollinating agent for the same amount of time✓ (2)

(Mark the first TWO only)

2.1.4 - Flowers with petals attract more insects✓
- an increase in insects increases the chance for pollination✓ (2)

2.1.5 - Self-pollination occurred✓
- not all the pollen tube reached the ovary, thus fertilisation did not occur✓ (2)

(09)

2.2 2.2.1 Protista✓ (1)

2.2.2
- Most people are not aware that they have contracted the disease✓
- they do not seek medical attention which leads to death✓

OR

- People do not have sufficient knowledge about malaria✓
- hence they don't take proper precautions when visiting malaria stricken countries✓ Any 1 x 2 (2)

2.2.3
- Educate people about the causes of malaria/awareness campaigns ✓
- so that they are well informed about the disease and its causes ✓ (2)

(Mark the first ONE only)

2.2.4

$$\frac{10\ 000 \times 100}{655\ 000}$$ ✓

1.5%✓ (2)

2.2.5 - Through a bite of an infected Anopheles mosquito✓ (1)

2.2.6
- Decrease the economy✓
- as more money will be spent buying medicine✓

OR

- There will be a high number of people absent from work due to illness✓
- decreasing productivity and the economy of the country✓ (2)

Any 1 x 2

2.2.7
- Sleep under mosquito nets✓
- Use insect repellents ✓ (1)

(Mark the first ONE only) **(11)**

QUESTION 3

3.1 3.1.1 Bryophytes ✓ (1)

3.1.2 Angiosperms ✓ (1)

3.1.3 ✓

Non-vascular plants	Angiosperms
No vascular tissues present/no xylem and phloem present. ✓	Vascular tissues present/has xylem and phloem. ✓
Does not produce seeds✓	Produces seeds✓
Dependent on water for fertilisation✓	Not dependent on water for fertilisation✓

(5)

(2 x 2 + 1 for the table) **(7)**

3.2 3.2.1 Porifera ✓ (1)

3.2.2 Diploblastic✓ (1)

3.2.3 Diploblastic animals produce only two germ layers✓
Triploblastic animals produce three germ layers✓ (2)

3.2.4
- The animal cannot ingest and egest at the same time✓
- The ingestion, digestion and egestion are not systematic✓
- There is mixing of digested and undigested food✓
- Digested food is also expelled during egestion✓

(Mark the first ONE only) (1)

3.2.5 - Allows the organism to sense danger/food from all directions✓✓ (2)

3.2.6
- Has a hydrostatic skeleton✓
  which assist during movement✓
- Has coelom✓
  which provides a circulatory system✓
- Has a through-gut✓
  which allows for more efficient absorption of nutrients and removal of waste✓
- Has a high degree of cephalisation✓
  allowing for the concentration of sense organs and nervous control to be at the anterior end of the body✓
- Has a closed blood system✓
  allows for faster transportation of blood within blood vessels✓

(Mark the first THREE only) (6)

TOTAL SECTION B: **(13)**

20

GRAND TOTAL: 60