**[10.0.0 Classification II (35 Lessons)](http://www.elimu.net/Secondary/Kenya/KCSE_Student/Biology/Form3/Classification/Classification.htm)**

1. Closed circulatory system

* 1. Endoskeleton;
	2. Scales;
	3. Streamlined body;

 ***Mark first three only (3 marks)***

2. (a) Fungi;

* 1. Plantae;
1. a) pteridophyta

 b) Q – Adventitious roots; ***rej root alone***

R– Rhizomes;

S– Sori/sorus;

 c) Function

 Q – Anchorage / absorption of water;

 S – Reproduction;

 d) Gametophyte;

 Sporophyte;

1. Angiospermaphyta; ¹

 Monocotyledonae; ¹

5. Protoctista; ; ¹

 Animalia; ¹

 Fungi; ¹

6. (i) Insecta (1mk);

 (ii) - A hard exoskeleton which reduces evaporation thus conserving water. (1mk);

* + - Excretes uric acid which requires very little water for removal thus conserving water. (1mk);
		- Has internal fertilization which eliminates the need for water to achieve successful reproduction. (1mk);
		- Is able to fly making it easier for them to spread to new areas. (1mk); (Any 3)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| 1. Body is divided into three parts Head, thorax and abdomen;
	* 1. Three pairs of jointed legs;
		2. They have exoskeleton;
 |   |   |   | (3mks)  |

1. a) A- Sori reject. sorus

 B- Rhizome;

* 1. Pteridophyta
1. Nucleus lack nuclear membrane / organelles not membrane bound; nucleus not organized; mitochondria absent / most

organelles absent; cell wall made of mucoprotein;

## 10. a)

|  |  |  |
| --- | --- | --- |
| Animal  | Identity  | Steps followed  |
| A  | *Arachnida*  |   |
| B  | *Hymenoptera*  |   |
| D  | *Chilopoda*  |   |
| E  | *Anoplura*  |   |

 b) i) A- Arachnida B - Insecta;

1. Has three pairs of legs;
2. Has three body parts;

11. a) A- Capsule/ Slime/ mucuos layer. (1mark)

 B- Flagellum rej flagella (1 mark)

 b) Monera.

* 1. single celled

 Lack mitochondria (2marks)

12. a) Bryophyta; (1mk)

* 1. K – capsule;
	2. Anchorage; Absorb water and mineral salts; (1mk)

13. (a) (i) Sporangiophore; (1mk)

 (ii) (Sporangium) – produce spores; (1mk)

 (b) (i) Fungi; (1mk)

 (ii) Presence of Rhizoids; Mycelium; spore formation; (1mk) [(i), (ii) tied]

 (c) (i) Sporulaion; (1mk)

 (ii) - Binary fission;

* Budding;
* Fragmentation; (Mark first two) (2mks)

 (d) Antheridia; (1mk)

14. (i) Pteridophyta; (1mk)

 (ii) Bryophyta; (1mk)

1. a) **Division** Pteridophyta

 **Reasons** Leaves are compound with leaflets/Pinna/frond

 Presence of sori

 Presence of horizontal underground stem/Rhizome

 b) i) Sporangia

 ii)

|  |  |
| --- | --- |
| ***Pteridophyta***  | **Spermatophyte**  |
| fertilization is dependent on water  | fertilization is mainly independent of water  |
| Does not produce seeds  | Seed bearing  |

 c) An eardrum is behind the eyes/gaseous occurs thru the skin, mouth and lungs /Hind limbs are longer and more muscular than the forelimbs

16.

|  |  |
| --- | --- |
| Gymnospamae  | Angiospermae  |
| * They do not produce flowers v They produce naked seeds.
* They have xylem with vessels
 | * They produce flowers
* They produce seed enclosed in a fruit. v Their xylem has not vessels
 |

17. (a) Arthropoda;

* 1. Class insecta;

 Reasons: - Three body parts/Head, thorax and abdomen;

 Three pairs of legs/six legs;

 A pair of antennae;

 A pair of wings;

* 1. Cholera;

 Typhoid;

 Amoebic dysentery;

* 1. Complete metamorphosis;

18. a) Kingdom Protoctista; Rej Wrong spelling

* 1. Amoeba Rej Wrong spelling
	2. Amoebic dysentery;

19. A- Archegonia;

 B – Rhizoid; (2marks)

20. (i) - Body covered by scales.

 - Fertilization is internal.

* + Double circulatory system.
	+ They have lungs for gaseous exchange. (1mk)

(ii) Class Diplopoda. (1mk)