

INSTRUCTIONS

- Attempt all the questions in section A and B in the spaces provided

Answers to section A

1	7	13	19	25
2	8	14	20	26
3	9	15	21	27
4	10	16	22	28
5	11	17	23	29

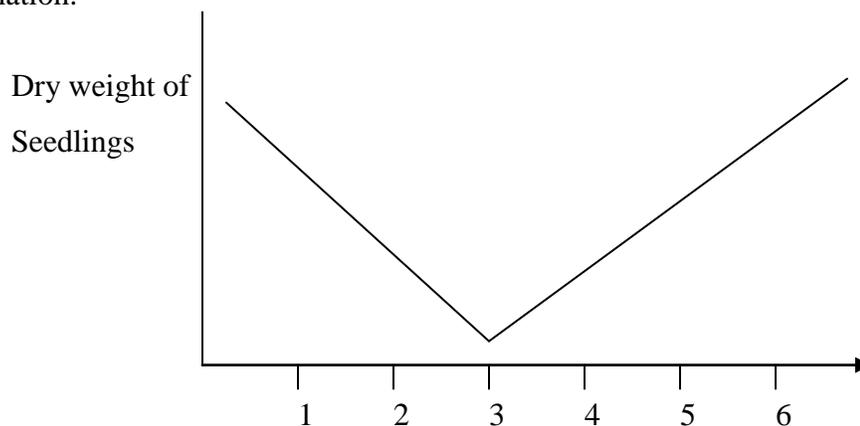
1. The best description of the leaf below is;



- A. Pinnate and parallel veined
- B. Pinnate and net-veined
- C. Palmate and net veined
- D. Bipinnate and parallel veined.

Questions 2 and 3 are about the graph below.

The graph shows the changes in the dry weight of seedlings during the first six weeks of germination.



2. Which one of the following explains the changes taking place during the first 3 weeks.
 - A. The seedlings are using some of their food for respiration.
 - B. The cotyledons were eaten by bacteria.
 - C. The soil is dry and seeds are losing weight
 - D. The rate of respiration is lower than that of photosynthesis.
3. Why is there increase in dry weight beyond the 3rd week of germination?
 - A. The seedlings have developed roots and absorbed water.
 - B. The seedlings have developed leaves and are now manufacturing food.
 - C. The seedlings are now free of bacteria.
 - D. The seedlings are respiring faster and therefore using much food.
4. Which of the following is **not** a mammal?
 - A. Bat
 - B. caterpillar
 - C. whale
 - D. rat
5. Wind – pollinated flowers have the following characteristics except.
 - A. Anthers produce a lot pollen.
 - B. Flowers have a good scent.
 - C. Stigma is feathery.
 - D. Petals are inconspicuous.
6. Which of the following seeds shows epigeal germination?
 - A. rice seed
 - B. maize seed
 - C. sorghum seed
 - D. pea seed
7. The structure of a cell responsible for production of energy is:-
 - A. nucleus
 - B. cell membrane
 - C. protoplasm
 - D. mitochondrion
8. An underground short condensed stem having outer dry scaly leaves and some inner thick fleshy scale leaves is
 - A. Stolon
 - B. Bulb
 - C. Rhizome
 - D. sucker
9. Which one of the following insects has piercing and sucking mouth parts?
 - A. Cockroach
 - B. Grasshopper
 - C. Mosquito
 - D. Housefly
10. Which one of the following fruits is a cypsela?
 - A. Tridax
 - B. Bean
 - C. Maize
 - D. Groundnut
11. What is the placentation of the fruit shown in the following diagram?
 - A. Parietal
 - B. Marginal
 - C. Axile
 - D. Basal
12. Which of the following is not a modification for leaves to carryout an usual function?
 - A. Buds for vegetative propagation
 - B. Turned into leaf dendrils for support
 - C. Turned into prickles and spines for defence
 - D. Possesses chloroplasts for photosynthesis
13. Which of the following organisms is not an arachnid?
 - A. Tick
 - B. Spider
 - C. Flea
 - D. Mite
14. Which of the following is a succulent type of fruit?
 - A. Pome
 - B. Capsule
 - C. Legume
 - D. cypsela
15. At which of the following levels of classification can organisms interbreed and produce fertile offspring?
 - A. Kingdom
 - B. Class
 - C. Species
 - D. Phylum
16. A microscope filled with a X5 eyepiece and a X20 objective lens will magnify an object.
 - A. X100
 - B. X25
 - C. X250
 - D. X4
17. How is a desmodium fruit adapted to its mode of dispersal? It has
 - A. wings
 - B. hooks
 - C. sticky hair
 - D. a parachute of hairs

29. Which of the following combinations of characteristics is true of all insects and distinguishes them from all other animals

- P Undergo complete metamorphosis
- Q Posses wings
- R Bear jointed legs
- S Bear three pairs of legs
- T Have bodies divided into head, thorax and abdomen

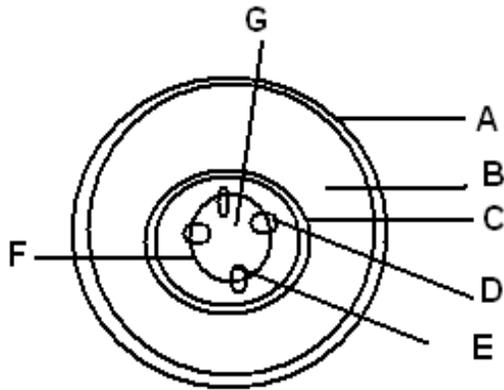
- A. P, Q and R
- B. S, T and P
- C. Q, T and P
- D. Q, R and T

30. Which of the following groups of insects are considered social

- A. bees, Ants and wasps
- B. Ants, Tsetse fly and mosquitoes
- C. bees, houseflies and wasps
- D. bees, Ants and mosquitoes

Section B

31. The figure below shows a plant part.



a) Name the parts labeled A-G (7 marks)

- A.....
- B.....
- C.....
- D.....
- E.....
- F.....
- G.....

b) What are the functions of parts (3 marks)

- D.....
- E.....
- F.....

c) State the part of plants from which the figure was extracted. (1 mark)

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32. (a) explain the meaning of the following terms (3 marks)

I. seed dormancy

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II. seed viability

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III. seed germination

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b) Give any three conditions necessary for germination (3 marks)

i).....

ii).....

iii).....

b) State any four causes of seed dormancy (4 marks)

i).....

ii).....

III).....

IV).....

d) How can each of the dormancy caused by the factors above in b) can be broken or removed (4 marks)

I)

II)

III)

IV)

33. a) what is meant by the term pollination (2 marks)

b) Name the two types of pollination (2 marks)

i).....

ii).....

c) give any five characteristics of (10 marks)

i) insect pollinated flowers

1).....

2).....

3).....

4).....

5).....

ii) wind pollinated flowers

1).....

2).....

3).....

4).....

5).....

End