

Section 5: Botany

Define the following:

- 1) Applied botany
- 2) Systematic botany
- 3) Plant morphology
- 4) Histology
- 5) Cytology
- 6) Plant physiology
- 7) Hypocotly
- 8) Epicotly
- 9) Plumule
- 10) Binomial System for naming plants
- 11) annual plant

12) winter annual

13) biennial

14) perennial

15) tropism

16) geotropism

17) Phototropism

18) Mitosis

19) Prophase

20) Metaphase

21) Anaphase

22) Telophase

23) Photosynthesis

24) Respiration

25) Assimilation

26 Define chromosomes

27 Biological definition of a seed

28) Seedling

29) What are the major components of a typical plant cell?

30) What is the importance of chromatin?

31) Differentiate between dicots and monocots:

Dicot

Monocot

a) roots

b) Flower parts

c) Roots

d) Leave veins

e) Stem

f) Cambium (when present)

32) Temperature, oxygen and moisture are essential for seed germination, explain the importance of each:

- a) Temperature
- b) Oxygen
- c) Moisture

33) Describe the phases of germination:

34) What is dormancy?

35) What are the causes of dormancy?

36) What is epigeal germination?

37) What is hypogeal germination?

38) List the five main functions of roots:

39) Why are root hairs important?

40) Define and give the origin of these root types:

a) Primary

b) Secondary

c) Adventitious

41) Vegetative meristem will give rise to:

42) Reproductive meristem will give rise to:

Define the following:

43) Vernalization

44) Thermoperiodism

45) Photoperiod

46) Phytochrome

47) Pedals

48) Sepals

49) Stamens

50) Pistil

51) Pericarp

52) Placentation

53) Complete flower

54) Incomplete flower

55) Perfect

56) Imperfect

57) Monecious

58) Diaecious

59) Inflorescence

60) Peduncle

61) Fruit

62) Dehiscent fruit

63) Indehiscent

64) What is the difference between floral induction and floral initiation?

65) Are phytochrome and florigen the same?

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