

# Holiday Worksheet

11th Standard

Biology

Date : 21-Oct-23

Exam Time : 01:30:00 Hrs

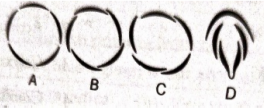
Reg.No. :

Total Marks : 100

40 x 1 = 40

## MULTIPLE CHOICE QUESTIONS

- 1) Apical meristem is found at which of the following organs in plant?  
(a) Roots Tips (b) Shoot Tips (c) Both (a) and (b) (d) Leaf Tips
- 2) Which is the position of intercalary meristem?  
(a) Between mature tissues (b) In mature tissues (c) Between two nodes (d) In the calyx
- 3) Which of the following is a dead tissue?  
(a) Sclerenchyma (b) Chollenchyma (c) Parenchyma (d) Cortex
- 4) Which of the following is not a part of the xylem tissues?  
(a) Xylem parenchyma (b) Trachieds (c) Vessels (d) Sieve tubes
- 5) Companion cells are found in which tissue?  
(a) Xylem (b) Phloem (c) Both xylem and phloem (d) None of these
- 6) Which of the following contains bigger sieve tubes?  
(a) Protophloem (b) Metaphloem (c) Protoxylem (d) Metaxylem
- 7) Stomata is found in which tissue system?  
(a) Epidermal Tissue System (b) Ground Tissue System (c) Vascular Tissue System  
(d) Stomatal Tissue System
- 8) What happens when stomata opens?  
(a) Water and Potassium exit from the guard cell (b) Water enters the guard cell and Potassium exits from it  
(c) Water exits from guard cell and Potassium enters it (d) Water and Potassium enter the guard cell
- 9) Open bundle is found in which of the following?  
(a) Monocot stem (b) Monocot Root (c) Dicot Stem (d) Dicot Leaf
- 10) Dicot leaves are also known as?  
(a) Dorsal Leaves (b) Dorsiventral Leaves (c) Bilateral Leaves (d) Isobilateral Leaves
- 11) In monocot leaves stomata is present on which surface of the leaf?  
(a) Dorsal Surface (b) Ventral Surface (c) Both Surfaces (d) On the midrib
- 12) In dicot leaves stomata is present on which surface of the leaf?  
(a) Dorsal Surface (b) Ventral Surface (c) Both Surfaces (d) On the midrib
- 13) Which of the following tissues is responsible for secondary growth?  
(a) Vascular Cambium (b) Cork Cambium (c) Secondary Cambium (d) both (a) and (b)
- 14) What is the role of the guard cells?  
(a) Controls opening and closing of stomata (b) Protects stomatal opening  
(c) Prevents dust from entering leaves (d) All of the above
- 15) A flower having superior ovary is  
(a) epigynous (b) hypogynous (c) perigynous (d) sessile

- 16) The edible part in mango is  
 (a) epicarp (b) tegmen (c) mesocarp (d) endocarp
- 17) In onion, food is stored in  
 (a) discoidal stem (b) fleshy scale leaves (c) adventitious roots (d) Scape type of stem
- 18) The tendrils in Pisum are modified  
 (a) leaflets (b) terminal buds (c) stipules (d) axillary buds
- 19) Venation is a term used to describe the pattern of arrangement of  
 (a) floral organs (b) flowers in inflorescence (c) veins and veinlets in a lamina (d) all of them
- 20) Which of the following plants is used to extract the blue dye?  
 (a) Trifolium (b) Indigolera (c) Lupin (d) Cassia
- 21) Roots developed from parts of the embryo other than the radicle are called  
 (a) taproots (b) fibrous roots (c) adventitious roots (d) nodular roots
- 22) The gynoecium where carpels are free is called.  
 (a) apocarpous (b) polycarpic (c) syncarpous (d) multicarpellary
- 23) In a longitudinal section of root tip, starting from tip upwards, are the regions of  
 (a) meristem, root cap, cell enlargement, cell maturation  
 (b) cell maturation, cell enlargement, meristem, root cap  
 (c) cell enlargement, cell maturation, root cap, meristem  
 (d) root cap, meristem, cell enlargement, cell maturation.
- 24) Monocarpellary ovary with marginal placentation and diadelphous stamens are characteristic of the family  
 (a) Solanaceae (b) Liliaceae (c) Fabaceae (d) Brassicaceae
- 25) Allium cepa (onion) is an example of which type of adventitious root system?  
 (a) Fibrous (b) Foliar (c) True adventitious (d) None
- 26) Nodes are the region of stem where  
 (a) food is stored by plant (b) leaves are borne (c) xylem and phloem are present (d) axillary buds develop
- 27) Monocot can be distinguished from dicot by  
 (a) aestivation (b) venation (c) Both (a) and (b) (d) None of the above
- 28) Arrangement of leaves on a stem or branch is called  
 (a) phyllotaxy (b) venation (c) inflorescence (d) veneration
- 29) Perianth is the condition in which  
 (a) calyx and corolla are not distinct (b) calyx is present, but corolla is absent  
 (c) corolla is present, but calyx is absent (d) calyx and corolla are not present
- 30) Arrange in correct order according to the given figures.  

 (a) A- Imbricate, B - Vexillary, C -Valvate, D-Twisted (b) A - Vexillary, B- Valvate, C - Twisted, D - Imbricate  
 (c) A - Valvate, B -Twisted, C -Vexillary D- Imbricate (d) A - Valvate, B -Twisted, C- Imbricate, D- Vexillary
- 31) Syncarpous gynoecium has two or more  
 (a) free carpel (b) fused carpel (c) free ovaries (d) All of the above

32) Radial symmetry is found in the flowers of

- (a) Cassia (b) Trifolium (c) Pisum (d) Brassica

33) Inflorescence is the arrangement of

- (a) leaves on the floral axis (b) buds on the floral axis (c) flowers on the floral axis  
(d) petioles on the floral axis

34) In racemose inflorescence, flowers are arranged in

- (a) centrifugal order (b) centripetal order (c) acropetal order (d) basipetal order

35) **Assertion (A)** : Adventitious roots develop from any part of plant.

**Reason (R)** : In such plants, tap root is not developed.

- (a) If both A and R are true and R is the correct explanation of A  
(b) If both A and R are true, but R is not the correct explanation of A (c) If A is true, but R is false  
(d) If A is false, but R is true

36) **Assertion (A)** : Stem develops from hypocotyl of embryo.

**Reason (R)** : Nodes bear axillary buds.

- (a) If both A and R are true and R is the correct explanation of A  
(b) If both A and R are true, but R is not the correct explanation of A (c) If A is true, but R is false  
(d) If A is false, but R is true

37) **Assertion (A)** : In some flowers like lily, perianth is a term used when calyx and corolla are not distinct.

**Reason (R)** : Calyx and corolla are the reproductive organs.

- (a) If both A and R are true and R is the correct explanation of A  
(b) If both A and R are true, but R is not the correct explanation of A (c) If A is true, but R is false  
(d) If A is false, but R is true

38) **Assertion (A)** :  $G_2$  is the symbol for inferior ovary.

**Reason (R)** : Fusion is indicated by enclosing the figure within bracket.

- (a) If both A and R are true and R is the correct explanation of A  
(b) If both A and R are true, but R is not the correct explanation of A (c) If A is true, but R is false  
(d) If A is false, but R is true

39) **Assertion (A)** : In racemose type of inflorescence the main axis grows indefinitely.

**Reason (R)** : Main axis is not terminated by flower

- (a) If both A and R are true and R is the correct explanation of A  
(b) If both A and R are true, but R is not the correct explanation of A (c) If A is true, but R is false  
(d) If A is false, but R is true

40) Given below is the diagram showing uniparous cyme inflorescence. In this type of inflorescence the peduncle ends up in a flower producing new single floral lateral axis at the base of older flow Observe the figure carefully and comment upon the appropriateness of the Assertion and the Reason.



**Assertion (A) :** In cymose inflorescence, growth of terminal bud stops after sometime.

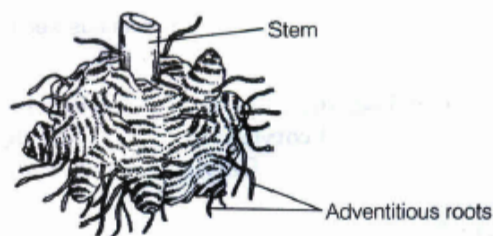
**Reason (R) :** The growth of the main stem is definite.

- (a) If both A and R are true and R is the correct explanation of A  
 (b) If both A and R are true, but R is not the correct explanation of A (c) If A is true, but R is false  
 (d) If A is false, but R is true

#### SHORT ANSWER QUESTIONS

30 x 2 = 60

- 41) Where are root hairs present in root?  
 42) 'X' is the female reproductive part of the flower, which consists of three parts A,B and C. 'A' is the swollen bottom part and C is the stocky part. Name all X,A,B, and C.  
 43) Why some tap roots become swollen and fleshy?  
 44) Why development of root branches is endogenous?  
 45) Why insects attract towards pitcher plants?  
 46) In Opuntia the stem is modified into a flattened green structure to perform the function of leaves. Write some other examples of modification of plant parts for the purpose of photosynthesis.  
 47) Which roots are involved in nitrogen fixation?Name them.  
 48) What is pulvins? Give an example of a plant that has pulvins.  
 49) Write a short note on two main types of roots.  
 50) How is pinnately compound leaf different from a palmately compound leaf?  
 51) Define the term bud. Write the basis of their classification? Name their types.  
 52) Differentiate between apocarpous and syncarpous ovary.  
 53) What is root cap? Which any two variations are found in this?  
 54) Write the floral formula of an actinomorphic, bisexual, hypogynous flower with five united sepals, five free petals, five free stamens and two united carpels with superior ovary and axile placentation.  
 55) Where is mother axis drawn in a floral diagram?  
 56) Explain the following floral formula and to which it belongs  $Ebr \oplus K_{2+2}C_4A_{2+4}\underline{G}_{(2)}$   
 57) Identify the following diagram and write important features.



58) Write the name of units of these flower parts.

- (i) Calyx  
 (ii) Corolla  
 (iii) Androecium  
 (iv) Gynoecium

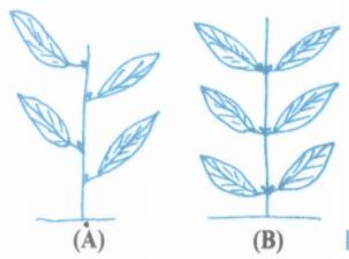
59) Given below are floral formulae of some well-known plants. Identify and write to which plants these belong.

- (i)  $\oplus \overline{\varphi} K_{(5)} C_{(5)} A_{(5)} \underline{G}_{(2)}$   
 (ii)  $\oplus \overline{\varphi} K_{(5)} C_{1+2+(2)} A_{1+(9)} \underline{G}_{(1)}$

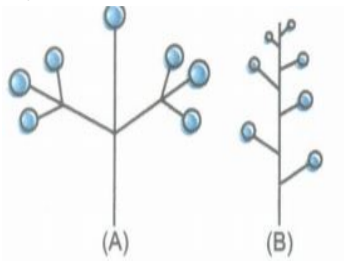
60) Give example of

- (i) Rhizome (ii) Tuber

61) Name the phyllotaxy shown in figure (A) and (B).

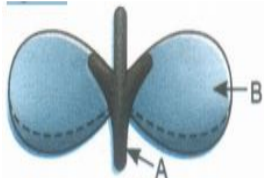


62) Name the inflorescence shown in (A) and (B).

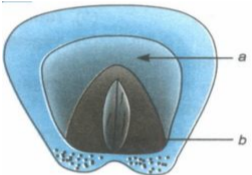


63) Provide the technical term to radially symmetrical flowers.

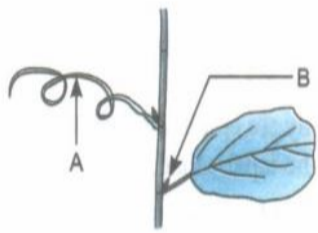
64) Name the part labelled as A and B, shown in given figure.



65) Name the parts labelled as 'a' and 'b' shown in the given figure.



66) Name the part shown at (A) and (B) in the diagram.



67) Mention the modified function(s) performed by:

- (a) Underground stem of potato
- (b) Axillary bud of watermelon.

68) What are bracteate and ebracteate flowers?

69) What is pericarp? Name its three different regions in a fleshy fruit.

70) A typical angiosperm flower consists of four floral parts. Give the names of the floral parts and their arrangements sequentially.

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