DPP
DAILY PRACTICE PROBLEMS

Class : XIth
Date :

Solutions

Subject : BIOLOGY
DPP No. : 2

Topic :- Anatomy Of Flowering Plants

1 **(a)**

Medullary or pith rays They are the radial strips of parenchyma which are present between adjacent vascular bundles. The medullary rays connects the pith with pericycle and cork

2 **(d)**

Due to the absence of vascular cambium the monocots don't show secondary growth

3 **(d)**

Both (b) and (c).

When xylem and phloem within a vascular bundle are arranged in an alternate manner on different radii, the arrangement is called radial, such as in roots. In conjoint type of vascular bundles, the xylem and phloem are situated at the same radius of vascular bundles. Such vascular bundles are common in stems and leaves. The conjoint vascular bundles usually have the phloem located only on the outer side of xylem

4 **(a)**

The periderm consists of phellem (cork), phellogen (cork cambium) and phelloderm. The Phellogen develops in the epidermis, the cortex, the phloem or the root pericycle and produces phellem towards the outside and phelloderm towards the inside.

5 **(d)**

When the xylem is differentiated from the point of origin towards outside (*i.e.,* periphery of axis), it is known as centrifugal xylem. In such cases as represented by stems, the protoxylem is situated towards inside and the metaxylem towards outside. This type of condition of xylem is called endarch.

6 **(c)**

Root Apical Meristem It is found at the tip of the main root and its branches. In case of tap root system, the root apical meristem is formed from radicle part of the embryo or its derivatives. In adventitious root, the root apical meristem is produced from the derivatives of shoot apex

7 **(c)**

Usually, epidermis consists of single layer of epidermal cells (*i.e.,* uniseriate). But in case of *Nerium*, multiple epidermis is found with thick-walled epidermal cells.

8 **(a)**

The primary growth in plants occur as a result of activity of the apical meristem, which helps in the elongation of roots with the help of root apical meristem and elongation of stem with shoot apical meristem. Dry growth is exhibited by the presence of vascular cambium

9 **(d)**

Study of internal structure of plants is called anatomy. Plants have cells as the basic unit, cells are organised into tissues and in turn the tissues are organised into organs

10 **(d)**

In monocotyledon, the vascular bundles are scattered throughout the ground tissue. They are conjoint and closed (not having vascular cambium)

11 **(d)**

The primary xylem is in the centre of the stem, while primary phloem is pushed outward and crushed into the cortex by the significant activity of vascular cambium. While the secondary phloem differentiates from the cells that divide towards the outside of the stem

12 **(c)**

In the meristematic cells, there is no reserve food materials like fat, protein and sugar. So, salts or inorganic material have more concentration than any other cells

13 **(d)**

Inbreeding is mating between individuals related by descent or ancestry. Inbreeding depression is the reduction or loss in vigour and fertility as a result of inbreeding. Detailed information on inbreeding in maize was published independently by **East** and **Shull**. Maize is a monocot plant. Bundle sheath in leaf and medulla in roots are present in maize.

14 **(a)**

In the leaf of flowering plants, the phloem is always found towards the lower side (abaxial) and xylem towards the upper (adaxial) side.

15 **(d)**

The inner, darker and harder portion of secondary xylem that cannot conduct water, in an older dicot stem is known as heartwood or duramen, whereas the outer, functional, water conducting, younger secondary xylem constitute the sap-wood or alburnum.

16 **(d)**

The cells arranged in multiple layer between epidermis and pericycle constitutes the cortex (dicot stem)

It consists of three zones

(i) Hypodermis

(ii) Cortical layer

(iii) Endodermis

17 **(d)**

Stone cells provide the hardness to seed coats.

18 **(d)**

Epidermis Epidermis is the outermost protective layer of plant organs. It is usually simple layered but in the leaves of tropical plants (*e.g.*, oleander, banyan) and velamen of some roots, the epidermis is more than one layer thickness. The epidermal tissue system is derived from the protoderm

19 **(d)**

Both (a) and (b).

The activity of cambium is under the control of many physiological and environmental factors. In temperate regions, the climatic conditions are not uniform through the year. In the spring season, cambium is very active and produces a large number of xylary elements having vessels with wider cavities. The wood formed during this season is called spring wood or early wood

20 **(b)**

Bark refers to a number of tissue types *viz.*, periderm and secondary phloem

ANSWER-KEY										
Q.	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
A.	**a**	**d**	**d**	**a**	**d**	**c**	**c**	**a**	**d**	**d**
Q.	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**
A.	**d**	**c**	**d**	**a**	**d**	**d**	**d**	**d**	**d**	**b**