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**First Term Examination - 2020**

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**BIOLOGY – II**

09

 **Structured Essay.**

**Answer all questions.**

01. (A). i. Mention 03 components transport along phloem sap.

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ii. What is meant by phloem unloading?

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iii. Name 2 sites where phloem loading takes place.

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iv. What is the driving force of bulk flow?

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v. Briefly explain how change at the sink, of the beginning of the process.

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vi. Glucose convertd to another compound before it transport along the respective tissue.

Mention 02 special features which make it more suitable to transport. (Than glucose).

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(B). i. What is meant by stomatal transpiration?

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ii. Write 03 external factors affect on transpiration.

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iii. What is meant by root pressure?

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iv. Write how guttation differ from transpiration.

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v. Draw a fully labed diagram of experimental setup to measure transpiration rate.

vi. Write one hepothesis follow in the experiment.

(C). i. What is meant by alternation of generation in plants?

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Diecous gametophyte

**A**

**X**

Sporangia

**Y**

Sporophyte

**B**

**C**

**D**

**Z**

**P**

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a. Identify the above plant.

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b. Label A - D and x - z.

A X

B Y

C Z

D

iii. Name corresponding stractures to A in *Selaginella*.

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iv. Write the 02 differences between gametophyte of above mentionred plant in the chart

and embryosac.

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v. Relate structural difference between pollen tube of *Cycas* and *Anthophyta* to their main

function.

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02. (A). i. What in meant by animal tissue?

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ii. Write main charcteristics of animal epithelial tissue.

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iii. Mentioned the respective epithelial tissue found in following locations.

**Location Tissue**

a. Kindeny tubule

b. Duodenum

c. Right ventricle

d. Vagina

iv. Write 04 main functions of connective tissues.

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v. Write 03 cell types found in loose connecttre tissue.

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vi. Write one function of each of them.

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(B). i. Plant body consist of different types of tissues. Write 03 functions of ground tissue

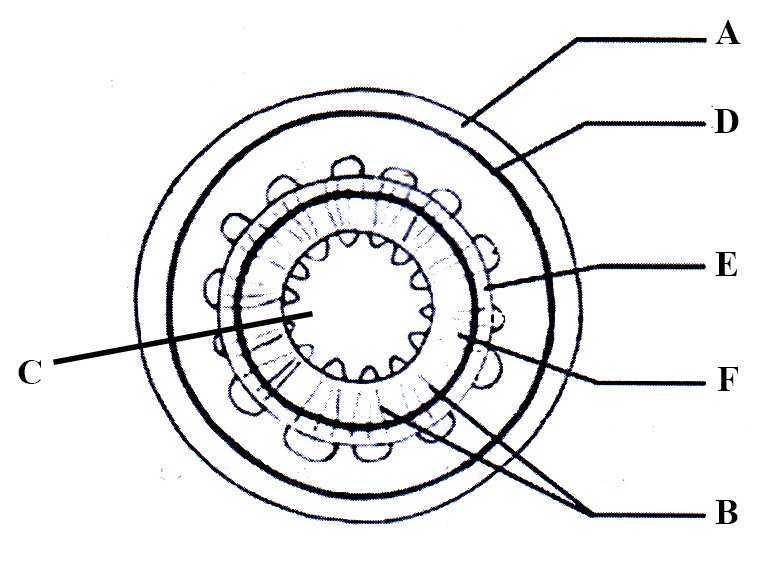
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ii. Identity the following diagram.



iii. Label A, B, C

A - D -

B - E -

C - F -

iv. What is meant by bark.

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v. What is the difference between hard wood and soft wood.

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(C). i. Phisiology of plants directly affectd by external factors.

Explain the how flowering control by external factors.

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ii. Explain statolith hypothesis in plants.

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iii. Complete the following table regarding plant hormone.

**Function** **Hormone**

a. Promote dessication tolerance

b. Promote the root hair formation.

c. Regulate transition from juvenile.

to adult phase.

d. Modify apical dominance

e. Promote the vertical growth seedlings.

iv. What is meant by biotic stress?

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v. Write 02 pre-existing chemical defense mechanisms found in plants for biotic stress.

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**Essay Questions.**

01. a). Explain the three path ways of radial transportation of water and minerals in vascular

plants.

b). Explain the process of upward movement of water and minerals in plants.

02. a). Explain the structural and functional adaptations of stomach for digestion and

absorption of food.

b). Explain the chemical digestion and absorption of small intestine.

03. Write short notes.

a). Feeding mechanisms of animals. b). Photomorphogenesis.

c). Microscopic Structure of liver.