

## **BIOLOGY**

**BOOKS - ICSE** 

# SEEDS - STRUCTURE AND GERMINATION

**Topic 11 Mark Questions** 

1. Give an example of a monocot seed.



2. Maize, rice and wheat are rich in .......... food.



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3. Name a seed which has folded plumule leaves.



**4.** Which part of a seed helps it to absorb water?



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5. What is a seed?



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**6.** The outermost layer of maize endosperm is known as



7. What is a fruit? State its function.



**8.** Give any two examples of dicotyledonous seeds.



**1.** Differentiate between the following pairs on the basis of what is given in the brackets.

Testa and Tegmen (location)



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2. Differentiate between the following pairs on the basis of what is given in the brackets.

Radicle and Plumule (function)



**3.** Give any two examples each of endospermic (albuminous) seeds and non- endospermic (exalbuminous) seeds.



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**4.** In soil, why do very deeply sown seeds fail to germinate?



**5.** Why do we say .maize grain. instead of maize fruit or maize seed?



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**6.** State the functions of the following in a seed.

Seed coat



**7.** State the functions of the following in a seed.

Cotyledons



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## **Topic 13 Marks Questions**

**1.** Give appropriate biological / technical terms for the following:

The ripened ovule.

**2.** Give appropriate biological / technical terms for the following:

A fruit with a protective layer formed by the fusion of fruit wall and seed coat.



**3.** Give appropriate biological / technical terms for the following:

Root sheath that protects the radicle in a maize seed.



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**4.** Choose the ODD one out from the following terms given and name the CATEGORY to which the others belong:

Gram seed, Pea seed, Rice, Bean seed



**5.** Choose the ODD one out from the following terms given and name the CATEGORY to which the others belong:

Tegmen, Testa, Stigma, Cotyledon, Radicle



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**6.** Choose the ODD one out from the following terms given and name the CATEGORY to which the others belong:

Androecium, Gynoecium, Calyx, Hypocotyl,
Style



7. The part of embryo axis between plumule and cotyledonary node is called



8. Name the following:

The layer of endosperm of maize, rich in

protein.



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**9.** Name a seed which has folded plumule leaves.



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**10.** Given below are sets of five terms each.

Rewrite the terms in correct order in a logical

sequence beginning with the term that is

underlined.

Seed, Endocarp, Seed coat, Mesocarp,  $\operatorname{Epicarp}$ 



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11. Given below are sets of five terms each.

Rewrite the terms in correct order in a logical sequence beginning with the term that is underlined.

Embryo, Zygote,  $1^{st}$  male gamete,  $\underline{\text{Micropyle}}$ ,

Egg cell.



**12.** Given below are sets of five terms each.

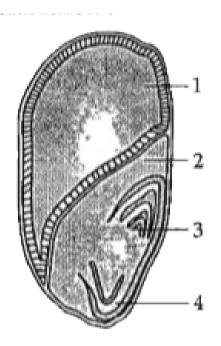
Rewrite the terms in correct order in a logical sequence beginning with the term that is underlined.

Fusion of gametes, Zygote, <u>Allogamy</u>, Seed, Embryo



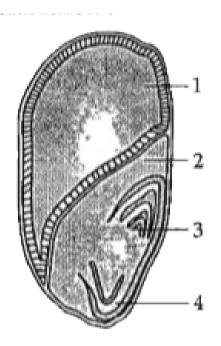
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**Topic 1 5 Marks Questions** 



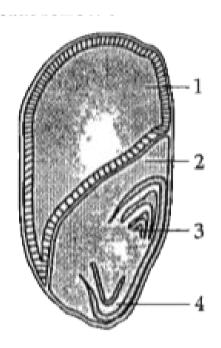
Name the structure shown and label its parts 1 and 2.





Is the given structure albuminous or non albuminous? Give reason for your answer.





Name the protective coverings of part labelled 3 & 4.

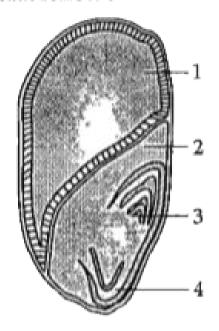




Name the protein rich layer of endosperm.

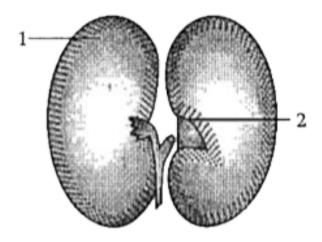


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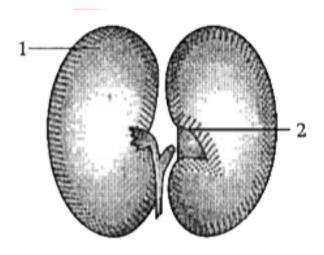
Why is the given structure called a grain?





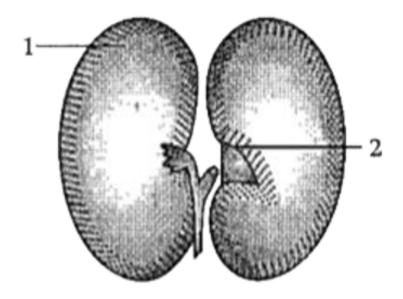
Name the structure given in the diagram.





Write the basic function of this structure.

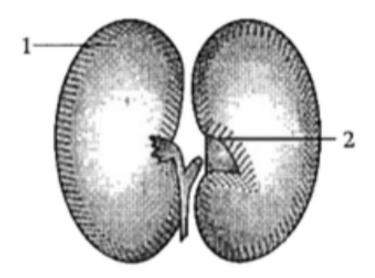




Label the parts numbered as 1 and 2.



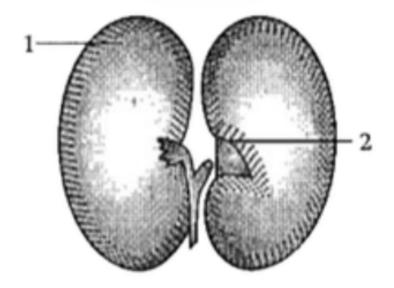
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Which part of it give rise to the root of the plant?

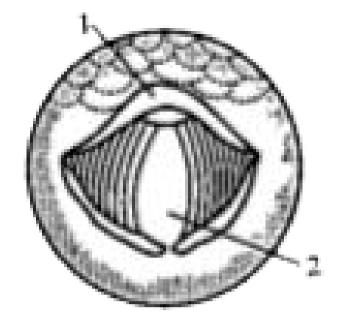


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State the upper leafy end of the axis lying between the cotyledons.

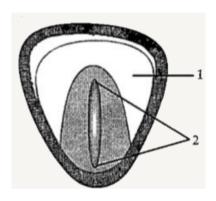




Name the structure shown in the diagram.

State in which part of the body it is present.





Write the basic function of this structure.



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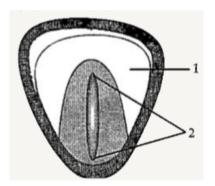


Label the parts numbered as .1. and .2..

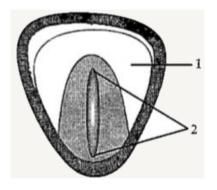


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**14.** Study the diagram given below and answer the questions that follow:



Name the protein containing layer found in this structure.



Name the food material stored in this structure.



#### **Topic 2 1 Mark Questions**

**1.** Name any two plant which shows viviparous germination.



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2. Give an example of hypogeal germination



**3.** Rewrite the terms in correct order in a logical sequence beginning with the term that is underlined.

Hypocotyl elongates, Hypocotyl forms loop above the soil, Seed coat bursts, Radicle grows downward, Epicotyl elongates.



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4. State the function of micropyle.



**5.** Name a chemical used in experiments, which absorbs oxygen.



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### **Topic 2 2 Marks Questions**

**1.** Differentiate between germination and vivipary.



2. State difference between coleorhiza and coleoptile on basis of their functions and location.



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**3.** Why does an experiment need a control set-up?



**4.** Explain the role of hypocotyls in epigeal germination.



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**5.** Differentiate between epigeal and hypogeal germination.



**6.** The diagram given below shows three bean seeds placed at different levels . Answer the following questions :



What changes will you observe in the seeds A, B and C after a few days? Explain with suitable reasons.



**7.** The diagram given below shows three bean seeds placed at different levels . Answer the following questions :



Name the part of the seed that provides nutrition for the growing seedling.



**8.** The diagram given below shows three bean seeds placed at different levels . Answer the

following questions:



Draw a neat, labelled diagram showing the internal structure of a bean seed.



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**9.** The diagram given below shows three bean seeds placed at different levels . Answer the following questions :



What type of germination does a bean seed show?



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**10.** The diagram given below shows three bean seeds placed at different levels . Answer the following questions :



Mention the parts of a flower which from the fruit and seeds.



**11.** Given below is a diagram depicting a physiological process in plants. Study the same and answer the following questions:

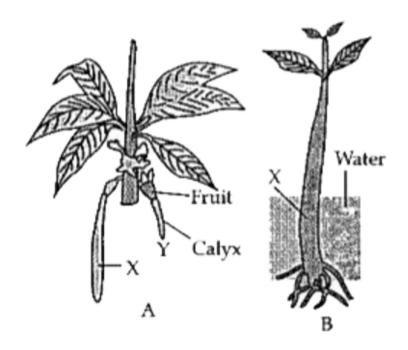


- (i)Name the process occurring in the diagram.
- (ii) Explain the process mentioned in part (i).



**12.** Given below is a diagram depicting a physiological process in plants. Study the

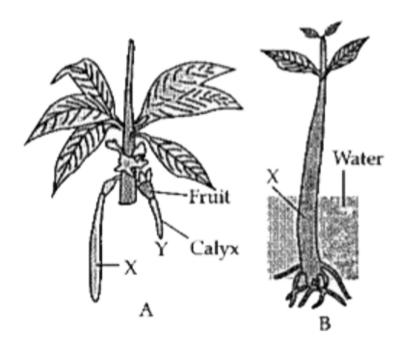
same and answer the following questions:



Label the part .X. and .Y..



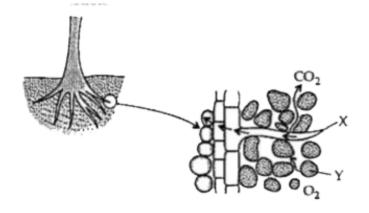
**13.** Given below is a diagram depicting a physiological process in plants. Study the same and answer the following questions:



Write two examples of plants showing this process.



**14.** Given below is a diagram depicting a physiological process in plants. Study the same and answer the following questions :

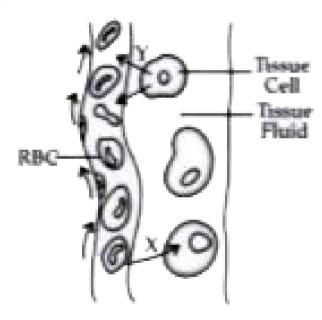


Define the part X.



**15.** Given below is a diagram depicting a physiological process in man.

Study the same and answer the following questions:

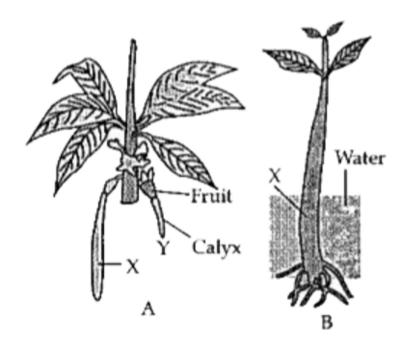


Name the process occurring in the diagram.

Explain the process mentioned in part (i).



**16.** Given below is a diagram depicting a physiological process in plants. Study the same and answer the following questions:

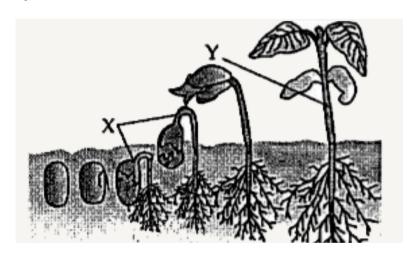


Label the part .X. and .Y..



**17.** Given below is a diagram depicting a physiological process in plants.

Study the same and answer the following questions:



Write two examples of plants showing this process.



**18.** Given below is a diagram depicting a physiological process in plants.

Study the same and answer the following questions:

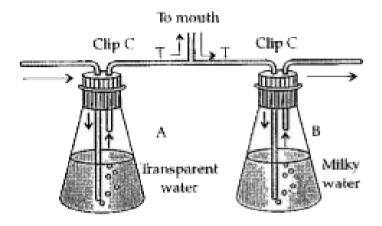


Define the part Y.



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**19.** Study the experimental set-up given below and answer the following questions:



What is the aim of the experiment shown above?



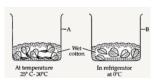
**20.** Study the experimental set given below and answer the following questions :



What is your observation after a few days for beakers .A. and .B. ?



**21.** Study the experimental set given below and answer the following questions:



Explain the role of temperature in this experiment.



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**22.** Study the experimental set given below and answer the following questions:

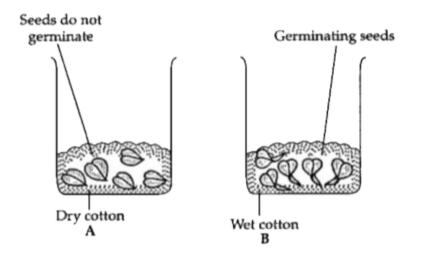


Why is wet cotton kept inside the beaker?



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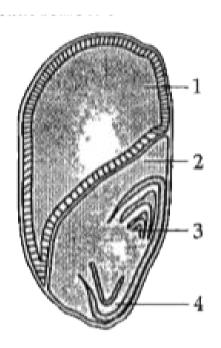
**23.** Study the experimental set-up given below and answer the following questions :



Which is the control set up and why?



**24.** Study the diagram given below and answer the questions that follow:



Name the structure shown and label its parts 1 and 2.



**25.** The given diagram represents the process of germination of seed. Study the diagram given below and answer the questions that follows:



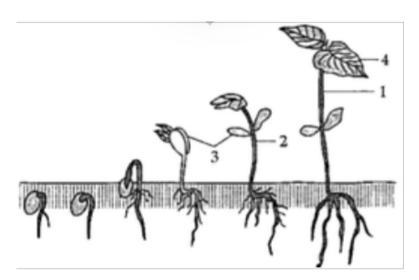
What happens when seed absorbs moisture?



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**26.** The given diagram represents the process of germination of seed. Study the diagram

given below and answer the questions that follows:



State the purpose of parts labelled as 3 & 4.



**27.** The given diagram represents the process of germination of seed. Study the diagram

given below and answer the questions that follows:



Name the type of seed germination.



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**28.** The given diagram represents the process of germination of seed. Study the diagram given below and answer the questions that follows:

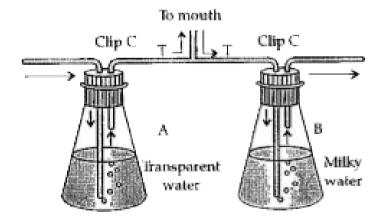


State two examples of plants showing this phenomenon



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**29.** Study the experimental set-up given below and answer the following questions:

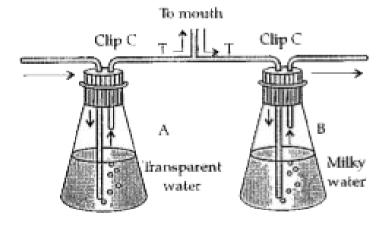


What is the aim of the experiment shown above?



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**30.** Study the experimental set-up given below and answer the following questions:



What is your observation for flasks .A. and .B.?



**31.** Study the experimental set-up given below and answer the following questions :



Explain the role of wet cotton in this experiment



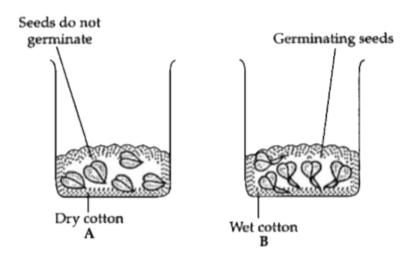
**32.** Study the experimental set-up given below and answer the following questions:



Does temperature can affect this experiment?



**33.** Study the experimental set-up given below and answer the following questions :



Which is the control set up and why?



## **Topic 2 3 Marks Questions**

1. Give appropriate biological / technical terms

for the following:

The process of formation of a seedling from

the embryo



**2.** Give appropriate biological / technical terms for the following:

Upper leafy part of the embryo axis that gives rise to the shoot of the plant.



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**3.** Give appropriate biological / technical terms for the following:

Part of the plumule above the embryonic axis of the seed.





4. What is double fertilisation?



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**5.** State major difference between maize grain and bean seed.

