Time : $2\frac{1}{2}$ Hours]　　　　　　　　　　[Total Marks : **70**

1　Answer the following : (Any **Seven**)　　　　**7×2=14**

   (a)　What is frequency? Write its formula.

   (b)　How do dead organisms contribute to energy flow?

   (c)　Define term community and write characteristic of its.

   (d)　What is autogenic and allogenic succession?

   (e)　What is phenology ? Draw a phenogram of *Arundinella sp.*

   (f)　What is Importance Value Index (IVI)? Write step for polygraph construction.

   (g)　What is the niche of displacement?

   (h)　What is population? Name different parameters used in population study.

   (i)　Which are the direct and indirect preventive measures reduce the risk of fire?

   (j)　What is ammonification and denitrification?

2　Answer the following : (Any **Two**)　　　　**2×7=14**

   (a)　Write short note on growth form.

   (b)　Describe analytic character of community.

   (c)　Write short note on synthetic character of community.

3   Answer the following :   **2×7=14**

    (a)   What is productivity? Describe the method of productivity measurement.

    (b)   Explain the decomposition process.

OR

3   Answer the following :   **2×7=14**

    (a)   Describe the causes, trends and basic type of succession.

    (b)   Give an account on classification and importance of ecotype.

4   Answer the following :   **2×7=14**

    (a)   Describe ecological niche.

    (b)   Write note on plant indicator.

5   Write short note on any **two** of the following :   **2×7=14**

    (a)   Soil aggregates

    (b)   Factors causing desertification

    (c)   Damages caused by the forest fire

    (d)   Nitrogen mineralization.