PG Even Semester Examination, May 2025

ECOLOGY & ENVIRONMENTAL SCIENCE

2nd Semester

Course No. : ECGCC - 552

(Forest Ecology)

Full Marks : 70

Pass Marks : 28

Time : 3 hours

The figures in the margin indicate full marks for the questions

(Answer any five questions, selecting one from each unit)

Unit - I

1. Define forest types. Describe the climatic patterns based on which forests have been divided into four zones in India. Elucidate the different vegetation types found in India with speical reference to North East India and the Himalayan belts. 1+5+8=14

2. Write short notes on : 7x2=14

   a) Mast fruiting intropical trees

   b) Pioneer and secondary species

(Turn Over)

Unit - II

3. Define seed dormancy in forest trees. Elucidate the causes of different type. If seed dormancy in forest trees. Describe the different approaches opted in breaking seed dormancy of forest trees. State the biological significance of seed dormancy. 1+7+5+1=14

4. Write short notes on : 7x2=14
   a) Pattern of shot growth in tropical trees
   b) Components of a good nursery

Unit - III

5. Define biomass. Describe the factors that influence forest biomass production. Add a note on forest succession and biomass accumulation. 2+8+4=14

6. Write short notes on : 7x2=14
   a) Allometric models
   b) Forest fire

Unit - IV

7. Define forest restoration. What do you understand by passive and facilitated restoration. Explain the

process of forest restoration with the help of appropriate diagram. Add a note on FLR. 2+4+6+2=14

8. Write short notes on : 7x2=14
   a) Stages in the development of CAMPA
   b) Functions of the steering and executive committee of state CAMPA

Unit - V

9. Define the 'source' on remote sensing studies. Describe the source and its various components with the help of a diagram. What portions of the source are useful for remote sensing studies? Out of incident radiation, transmitted radiation and reflected radiation, which is utilized in remote sensing studies? Give reasons for your answer. 2+9+1+2=14

10. Write short notes on : 7x2=14
    a) Concept, functions and components of GIS
    b) Digital image interpretation

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