

**FORESTRY****Paper - II**

Time Allowed : Three Hours

Maximum Marks : 200

**Question Paper Specific Instructions**

*Please read each of the following instructions carefully before attempting questions :*

*There are EIGHT questions in all, out of which FIVE are to be attempted.*

*Questions no. 1 and 5 are compulsory. Out of the remaining SIX questions, THREE are to be attempted selecting at least ONE question from each of the two Sections A and B.*

*Attempts of questions shall be counted in sequential order. Unless struck off, attempt of a question shall be counted even if attempted partly. Any page or portion of the page left blank in the Question-cum-Answer Booklet must be clearly struck off.*

*All questions carry equal marks. The number of marks carried by a question/part is indicated against it.*

*Answers must be written in ENGLISH only.*

*Neat sketches may be drawn, wherever necessary.*

**SECTION A**

**Q1. Answer each of the following questions :**

**8×5=40**

- (a) Can you differentiate between the terms mixed plantations in forestry and mixed cropping in agriculture ? Justify the differences between them. 8
- (b) Topographic surveys are found useful in forest management. Discuss. 8
- (c) Which of the instruments has Wheeler's pentaprism replaced and why ? 8
- (d) How important are the increment borers in forest health and growth analysis ? Does Pressler's borer have any adverse effects on the tree sampled ? Elaborate on the issue. 8
- (e) Which are the basic factors you have to look for before running out a survey line in chain surveying ? 8

- Q2.** (a) Progressive yield concept differs from sustained yield. Under the present situation, which would you suggest and why? 15
- (b) Show by your interpretation, either graphically or theoretically, how the forest yield depends upon the growing stock. 15
- (c) Discuss how the rotation of minimum volume production differs from the silvicultural rotation. 10
- Q3.** (a) How will you find the reduced levels of the given points by height of collimation method and rise and fall method and then check arithmetically? 15
- (b) Maps are an integral part of forest management. Give your perceptions about the kind of maps you consider important for managing a forest circle. 15
- (c) In a forest survey, you are provided a prismatic compass. How will you accomplish the bearings of line AB? 10
- Q4.** (a) How far do taper tables help in measuring the volume of a tree? Discuss their types and methods of preparation. 15
- (b) Why are sample plots laid out in different forest species? What is their utility and how are they enumerated? 15
- (c) Discuss how the microwave remote sensing has been found to be more useful in forestry than other satellite imageries. 10

## SECTION B

**Q5. Answer each of the following questions :**

**8×5=40**

- (a) There are various processes involved in the expression and extraction of oilseeds available in forests. Elaborate on the processes involved and their utilization. 8
- (b) Timber encounters many different problems during the process of drying. What are those problems and how are they overcome? 8
- (c) To protect the wild animals venturing out from their core areas, some administrative and management arrangements are made. What are those? Discuss. 8
- (d) There are measures which are taken to protect the forests from fire damage. Which are those and how effective have they been? 8
- (e) Give the scientific names of at least five drug yielding plants with their use in pharmaceutical industry. 8

- Q6.**
- (a) Why is carbon recycling important? What are its influences on climate? Discuss your points for or against. 10
  - (b) Indian forests are found to be rich in different kinds of non-timber forest products (NTFPs). Can you list at least 10 NTFPs? 10
  - (c) Does rotational grazing have an advantage over controlled grazing in the smooth management of forest ecosystems? Give your reasons for and against, both. 10
  - (d) Growth and productivity of forest plants are affected by different types of air pollutants. What are those? Suggest suitable remedies. 10
- Q7.**
- (a) Give a comparative and appropriate statement on the Natural Forest Policy of 1988 with that of 1952. 15
  - (b) Narrate how sustainable forestry accounts for the ecological, economic, social and cultural values of forests. Give your opinion. 15
  - (c) Enumerate the role and importance of the Forest Survey of India (FSI) in forest management systems. 10

- Q8.** (a) Discuss the important role of The Wildlife Protection Act, 1972 in forest management. Give salient points only. 10
- (b) Describe the role of Permanent Forest Policy after its enactment for regulation of forestry management in India. 10
- (c) Enumerate and discuss the factors responsible for restricting tribal population in the National Parks. 10
- (d) What are the major fibres and flosses which are obtained from forests in India ? Citing at least ten species, discuss their commercial importance. 10