

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

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| (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