

**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.

Question 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 chronological 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 answer book 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.

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**SECTION—A**

- Q. 1. Answer all the following : 8×5=40
- Q. 1(a) What is a stand table ? Give brief description for preparation of a stand table. 8
- Q. 1(b) Differentiate between Geostationary and Sun synchronous satellite; and satellite imagery and remote sensing. 8
- Q. 1(c) How is stump analysis carried out and what kind of information does it yield ? 8
- Q. 1(d) Introduction of joint forest management in various states in India was found positive in Biodiversity conservation; discuss in detail. 8
- Q. 1(e) Define rotation and describe the various types of rotation prescribed. 8
- Q. 2(a) How enumeration of the growing stock is done ? Describe in brief the various methods of enumeration for preparing a working plan. 15
- Q. 2(b) How yield is regulated ? Describe the Von Mantel's formula for yield regulation in forests. 15
- Q. 2(c) With the help of a diagram, discuss the relationship between MAI and CAI. What is their role in forest measurements ? 10

- Q. 3(a) Describe the characteristics and structure of an even-aged stand. 10
- Q. 3(b) What is a tree stem form ? How is tree stem form calculated and what are its uses in forestry ? 15
- Q. 3(c) Differentiate between sample plots and preservation plots. Discuss their role in management. 15
- Q. 4(a) How is compass surveying done ? What are the advantages and disadvantages of compass surveying ? 15
- Q. 4(b) What are the peculiarities you have observed in forest management practices ? Suggest ways to overcome them. 10
- Q. 4(c) "Spiegel Relaskop is an instrument of great use in forestry"; justify with reasons. How is the basal area per hectare determined by this instrument ? Explain. 15

#### SECTION—B

- Q. 5. Answer all the following : 8×5=40
- Q. 5(a) In brief, but in an explanatory way describe the preparation and utility of yield tables in forestry. 8
- Q. 5(b) Which are the six major attributes of an ecosystem—explain in detail. 8
- Q. 5(c) Discuss in detail the importance; success and limitations of the 'Project Tiger'. 8
- Q. 5(d) Write in detail the processing and uses of Tannins in India. 8
- Q. 5(e) Explain the term logging, its purposes and stages. 8
- Q. 6(a) Discuss the role of National Parks in conservation of biodiversity. 10
- Q. 6(b) What is wood preservation ? Why is preservation of wood necessary ? Mention main types of wood preservation methods. 15
- Q. 6(c) What is an increment borer ? Describe its role in forestry. 15
- Q. 7(a) Define growing stock. Explain the estimation of growing stock and density. 10
- Q. 7(b) Describe the general principle of yield regulation in Uneven-aged forest crop. 10
- Q. 7(c) Why is a balance between production, social and environmental objectives necessary in sustainable forest management plans ? 20
- Q. 8(a) What is stand density ? How spacing is used to control stand density ? Discuss. 15
- Q. 8(b) How is site quality important in timber production ? Describe the methods used to measure the site quality. 15
- Q. 8(c) Describe the salient features of National Forest Policy 1988. How does it differ from 1952 Forest Policy ? 10