

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 Nos. 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.

The number of marks carried by a question/part is indicated against it.

Neat sketches may be drawn, wherever necessary.

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.

Answers must be written in ENGLISH only.

SECTION—A

1. (a) Explain the role of normal series of age gradation and age class in forest management. 8
- (b) Describe the significance of working plan and working scheme in conserving biodiversity. 8
- (c) Explain Metzger's theory of tree form and its significance in volume calculation. 8
- (d) Define bridge and explain different types of bridges with sketches. 8
- (e) Describe the procedure for estimating volume of standing and felled tree. 8
2. (a) Describe the method for calculation of normal growing stock with the help of yield table. 15
- (b) What is compartment? Why is its study and description required when making working plan? 15
- (c) Explain the principles of height-measuring instruments giving suitable example. 10
3. (a) Give a list of survey methods adopted in forests. Describe the survey of forest when a river comes in the way of survey line. 15
- (b) What is point sampling? How is it helpful to find out basal area of a forest? 15
- (c) Explain concrete and write the characteristics of good concrete mixture. 10

4. (a) What is progressive yield? How is annual yield obtained in a forest worked with periodic blocks method? 15
- (b) Describe the role of remote sensing and GIS in monitoring forest resources. 15
- (c) What is brick? Describe different types of bricks giving their characteristics. 10

SECTION—B

5. (a) Describe the features and importance of clonal parks in forest conservation. 8
- (b) What is Reduced Impact Logging (RIL)? What is its composition? Explain the benefits of RIL. 8
- (c) Define Non-Timber Forest Products (NTFPs). Explain their importance to human societies and economy. 8
- (d) Describe how controlled fire can be used as a tool in forest management. 8
- (e) Discuss various channels for marketing of forest products. 8
6. (a) Define wood. Explain the microscopic/anatomical features which aid in identification of timber species in detail. 15
- (b) Describe various physiological mechanisms underlying drought resistance, drought tolerance and drought avoidance in forest species. 15
- (c) What is controlled grazing? Describe how it helps in the better management of forest pasture land. 10
7. (a) What is forest valuation? Write its objectives and briefly explain the methods of forest valuation. 15
- (b) What are particle boards? Explain the features of different types of particle boards. 15
- (c) What are ecological pyramids? Explain different types. Mention the implications of concept of ecological pyramids in understanding forest ecosystems. 10

8. (a) Write in detail regarding the appointment of authorities and restrictions of hunting of wild animals under the Wildlife (Protection) Act of 1972. 15
- (b) List different systems and methods of sales of forest produces. What are the different methods of sales adopted in State forest departments? 15
- (c) Describe the causes of deforestation. What are the measures to be taken for the control of deforestation? 10

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