

Printed Pages : 3



NAG-103

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 180121

Roll No.

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B. Tech.

(SEM. I) (ODD SEM.) THEORY
EXAMINATION, 2014-15
AGRICULTURE FOR ENGINEERS

Time : 3 Hours]

[Total Marks : 100

SECTION - A

- 1 Attempt any **ten** parts of the following : **10×2=20**
- Define sodic and saline soil.
 - What do you mean by tillage? Give any four tillage tools.
 - Why soil samples are dried in an oven at 1050C.?
 - What do you mean by organic matters? Give their C : N ratio.
 - List the types of soil according to their particle sizes.
 - Define Electrical conductivity. In what units it is expressed.?
 - What do you understand by bulk density of soil? Is it greater than true density or not.?
 - Mention the places in India where red soils are found. Why it appears red in colour.?

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[Contd...

- (i) With any two examples mention relay cropping.
- (j) Mention the characteristics of good cropping scheme.
- (k) In 50 words mention the status of vegetable cultivation in your state.

SECTION - B

- 2 Attempt any **three** parts of the following : **10×3=30**
- (a) What are soil inorganic colloids.? Describe their properties.
 - (b) Why good quality irrigation water is necessary.? Enumerate few parameters.
 - (c) Explain the nursery raising method of Papaya plants.
 - (d) Define weeds. Explain the characteristics and dissemination of weeds.
 - (e) What is Bio-fertilizers? Describe the importance of Bio-fertilizers. Also compare it with chemical fertilizers.

SECTION - C

- 3 Attempt any five parts of the following : **10×5=50**
- (a) Define seeds. Describe different kinds of seeds and characteristics of good quality seeds.
 - (b) Write short note on:
 - (i) Soil fertility and soil productivity.
 - (ii) Vermi compost.
 - (c) Explain the production technology of any fruit crop of your choice grown in Uttar-Pradesh.
 - (d) Describe the soil-plant-water relationship with the help of diagraph.

- (e) What are the methods for estimating soil moisture? Explain any one in detail.?
 - (f) Discuss harvesting, sorting, grading and packaging of grapes for the purpose of export.
 - (g) What are the roles played by organic matter in the soil.? What are the factors responsible for organic matter content in the soil.?
 - (h) What are the important physical properties of soil responsible for its productivity?
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