

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

Paper ID : 197851

Roll No.

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B.TECH.

Theory Examination (Semester-VIII) 2015-16

**SUSTAINABLE AGRICULTURE,
BUILDING & SANITAITON**

Time : 3 Hours

Max. Marks : 100

Section-A

1. Attempt all parts. All parts carry equal marks.

Write answer of each part in short. (2×10 = 20)

- (a) Define sustainable development.
- (b) Enlist the advantages of water shed management.
- (c) What are crop diversity and crop rotation?
- (d) How organic farming is different from conventional farming?
- (e) Mention some healthy sanitation practices in communities.

- (f) Identify the role of socio-economic activities in water contamination.
- (g) State different methods passive solar heating.
- (h) Is family planning necessary for a sustainable environment?
- (i) Why direction of sunlight should be considered in building a house?
- (j) Differentiate slow sand and rapid sand filter in RWH.

Section-B

2. Attempt any five questions from this section.

(10×5 = 50)

- (a) Discuss the role of people participation in watershed management.
- (b) How can rainwater harvesting and utilization contribute a sustainable water strategy?
- (c) “Organic farming is an attractive alternative” -comment. Describe various factors affecting in adoption of organic farming.

- (d) Elaborate adaptability and affordability of various community latrines for rural area.
- (e) Outline the importance of infant mortality rates on communicable diseases and prevention in India.
- (f) Write short notes on :-
 - (i) pre-fabrication of building components
 - (ii) materials used in rural housing
- (g) With a neat sketch illustrate different steps of collection and storage of rooftop rainwater harvesting.
- (h) Describe the technical criteria used in the selection of sustainable water harvesting techniques.

Section-C

Note: Attempt any two questions from this section.

(15×2 = 30)

- 3. (a) What is drip irrigation method? List its component, also explain its advantages.
- (b) Elaborate different dimensions in sustainable agriculture.

4.
 - (a) Differentiate in detail about vermi-composting and composting
 - (b) Summarize various prevention methods of water treatment.
5.
 - (a) Discuss in detail the design criteria in building energy efficient houses.
 - (b) Write in detail about surface run off harvesting.