

**HEMCHANDRACHARYA NORTH GUJARAT UNIVERSITY, PATAN
COMMUNITY COLLEGE**

Advanced diploma in Agriculture and Soil Sciences

Semester I Internal Examination, February, 2016

Paper AS-102 Fundamentals of Soil Sciences, Fertility and Management

Date: 02/02/2016

Time: 9:00 to 11:00 am

Total Marks: 40

Q-1 Answer all questions. Each question carries 1 mark

(10*1=10 Marks)

1. Among the following _____ is sources of organic amendments/ modifiers.
a) cover crops b) tillage c) crop rotation d) post consumer food wastes
2. What is mulch?
3. Saline soil having pH of _____.
a) 0 to 5.5 b) 6.5 to 7.5 c) 8 to 14 d) none of above
4. A horizon in soil profile is _____.
a) rock material b) minerals c) organic matter d) none of above
5. Clay particles having diameter of _____.
a) less than 0.002 b) above 2.0 c) between 0.02 to 0.20 d) none of above
6. Major source of water used by the plants is:
a) hygroscopic water b) capillary water c) inter space water d) gravitational water
7. Silt is combination of 90% of silt and 10% of _____.
a) sand b) clay c) loam d) none of above
8. North Gujarat having which kind of soil?
a) Deep black clayey b) sandy and saline c) sandy loam to sandy d) none of above
9. Full form of CSHT is _____.
a) Cornell Soil Health Test b) Conrell Soil-water Health Test
c) Cornell Soil-structure Health Test d) Conrell Soil-air Health Test
10. Unit of density is _____.
a) m/v b) v/m c) kg d) none of above

Q.2 Answer any 4 questions. Each question carries 5 marks

(5*4=20 Marks)

1. Explain soil profile with labelled diagram.
2. Explain soils of Gujarat and draw a diagram for soil water.
3. Explain effect of acid soil on plant growth with their reclamation.
4. Describe alkaline and saline soil.
5. Describe soil air and soil structure.

Q.3 Answer any 1 question. The question carries 10 marks.

(1*10=10 Marks)

1. Explain soil texture, soil density, soil colour, soil water and soil pH.
2. Discuss soil management.