

- Q.25 What are chemical properties of soil? Give their importance with suitable example.
- Q.26 What are the factors affecting soil structure?
- Q.27 Define soil permeability and its importance.
- Q.28 Describe reclamation of alkali soils.
- Q.29 What are the health hazards of water logged soils?
- Q.30 What are the methods of ground water recharge?
- Q.31 Write a note on the role of vegetated water ways to check erosion.
- Q.32 What is the need, importance and scope of water harvesting?
- Q.33 What are the benefits of drainage?
- Q.34 What are different methods of soil moisture determination? Explain any one in detail.
- Q.35 Describe the mechanics of wind erosion.

#### SECTION-D

- Note:** Long answer type questions. Attempt any two questions out of three questions. (2x10=20)
- Q.36 Describe the permanent structures for control of erosion. Explain their types and adaptability.
- Q.37 Explain the principles, adaptability and constructional features of Chute spillway.
- Q.38 Describe the causes, effects and management of water logging.

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#### 3rd Sem / Agri

**Subject:- Soil and Water Conservation / Soil Conserv.**

Time : 3Hrs.

M.M. : 100

#### SECTION-A

**Note:** Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 The uniform removal of soil in thin layers from sloping land
- a) Rill erosion                      b) Sheet erosion
- c) Gully erosion                    d) Raindrop erosion
- Q.2 The movement of fine particles is called
- a) Saltation                          b) Suspension
- c) Surface creep                    d) None of these
- Q.3 The characteristics of soil at various moisture contents when influenced by physical forces of cohesion & adhesion
- a) Porosity                            b) Void ratio
- c) Particle density                  d) Soil consistency
- Q.4 The erosion that takes place under natural cover
- a) Rill erosion                        b) Sheet erosion
- c) Geological erosion              d) Accelerated erosion

- Q.5 The moisture content of soil after gravitational water is drained.
- a) Available water      b) Saturation  
c) Field capacity      d) Drainage
- Q.6 Which soil has low water retaining capacity
- a) Silt      b) Sand  
c) Clay      d) Loam
- Q.7 Darcy's law is applicable when Reynolds number is
- a) Equal to 1      b) More than 1  
c) Less than 1      d) Less than 2
- Q.8 The arrangement of soil according to grain size is
- a) Soil Texture      b) Soil structure  
c) Soil separates      d) Soil consistency
- Q.9 Graded terraces are used in areas of
- a) High rainfall only  
b) Medium to High rainfall  
c) Medium rainfall only  
d) None of these
- Q.10 The terrace used to divide a steep slopping land into a series of level or nearly level strips or benches running across the slopes.
- a) Ridge terrace      b) Channel terrace  
c) Bench terrace      d) Broad base terrace

## SECTION-B

**Note:** Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Define wilting point.
- Q.12 Define Coefficient of permeability.
- Q.13 ESP stands for \_\_\_\_\_
- Q.14 Define watershed.
- Q.15 Define soil aeration.
- Q.16 Define porosity.
- Q.17 Define degree of saturation.
- Q.18 Define contour farming.
- Q.19 What is watershed management?
- Q.20 Write the formula of bulk density.

## SECTION-C

**Note:** Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 What is soil texture? Give USDA classification of soil texture.
- Q.22 What is the difference between raindrop and sheet erosion?
- Q.23 Explain Agronomic and field practices to control erosion by water.
- Q.24 Name various constituents of soil and their importance.