

**PARUL UNIVERSITY**  
**COLLEGE OF AGRICULTURE**

**B.Sc. (Hons.) Agriculture Winter 2019 – 20 Examination**

Semester: 2

Date: 13/12/2019

Subject Code: 20103151

Time: 02:00 pm to 04:30 pm

Subject Name: Soil and Water Conservation Engineering

Total Marks: 50

**Instructions**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1 Do as Directed.****A. Fill in the blanks. (Each of 0.5 marks)****(05)**

1. Large form of Rill Erosion is known as .....
2. In one year two or more crops cultivation is known as ..... cropping pattern
3. Sheet erosion is also known as .....
4. .... is an effective method of soil conservation in hilly area.
5. Rotation of crop is essential for.....
6. Contour binding is done to check..... erosion.
7. Erosion of very fine particles is seen on account of.....
8. Points of Equal Elevation is known as .....
9. If there is a little slope in the field, the soil erosion can be prevented by .....
10. .... and ..... are the conservation centres in India

**B. Multiple choice type questions. (Each of 0.5 marks)****(10)**

1. .... material is used for mulching to reduce soil erosion
 

a). Cut grasses or foliage	c). Plastics
b). Straw materials	d). All of above
2. The possible beneficial effect of the grazing animals is:
 

a). Addition of their excreta to the soil	c). Eradication of weeds
b). Removal of wild plants	d). Removal of wild animals
3. Evenly spaced contours indicate an area of .....
 

a). Equal slope	c). Uniform slope
b). Steady slope	d). Variable slope
4. Life of durability of Grassed Waterways depend on .....
 

a). slope	c). velocity
b). Vegetation	d). All the above
5. The factors affection on soil erosions are
 

a). Climatic Factor	©. Topographical Factors
b). Temperature	d). All above said
6. In splash erosion soil may be splashed into the air up to a height of ..... cm
 

a). 50 cm to 75 cm	c). 75cm to 100cm
b). 150 cm to 200cm	d). all the above

**7. Rill erosion of soil is occurred due to .....**

- a). Surface runoff
- b). Higher Wind Velocity
- c). Sub-surface runoff
- d). Rainfall

**8. Splash erosion is also known as ..... erosion**

- a). Light
- b). Runoff
- c). Impact
- d). Raindrop

**9. The volume of water that passes a point in the stream during a given amount of time is called**

- a). Stream velocity
- b). Stream flow
- c). Stream Discharge
- d). Stream tide

**10. ....is a non-pesticidal method of controlling soilborne pests by placing plastic sheets on moist soil during periods of high ambient temperature.**

- a). poly house
- b). Soil solarization
- c). Green house
- d). Straw burning

**11. All erosion is powered by a conversion of the potential energy of gravitation to other forms, particularly..... energy.**

- a). Kinetic energy
- b). Steady-state energy
- c). Mechanical energy
- d). Tidal wave energy

**12. Which soil erosion centre is located in Gujarat ?**

- a). Dhasara
- b). Morabi
- c). Vasad
- d). Dantiwada

**13. Soil conservation can best achieve by having**

- a). Wind screens
- b). Good plant covers
- c). Restricted human activity
- d). Low rainfall

**14. The Wind erosion occurs at what velocity of wind...**

- a). 16 Km/h
- b). 56 Km/h
- c). 26 Km/h
- d). 09 Km/h

**15. Mechanics of soil erosion includes**

- a). Detachment of soil particles
- b). Transport of soil particle
- c). Deposition of soil particle
- d). All of above

**16. Which is the 1<sup>st</sup> stage of water erosion?**

- a). Splash
- b). Gully
- c). Rill
- d). Sheet

**17. The rates of accelerated erosion is ..... than geological erosion**

- a). Lower
- b). Higher
- c). More or less same
- d). None of above

**18. Eroded soils are.....**

- a). Rich in plant nutrients
- b). Devoid of plant nutrients
- c). Unaltered in plant nutrients
- d). All of these

**19. Soil conservation means:**

- a). Prevention of spread of desert
- b). To check soil erosion by wind and rains
- c). To check soil erosion by afforestation
- d). All of these

**20. Which of these are the Agents of Erosion**

- a). Water
- b). Glacier
- c). Wind
- d). All the above

**Q.2 Do as Directed.**

**A. Define the following. (Any five)**

1. Define contouring
2. Define Runoff
3. Define Bench Terracing practices in soil erosion

**(05)**

4. Write down factors affecting soil erosion
5. Define accelerated erosion
6. Describe grassed water ways
7. Define Irrigation

**B. Answer the following. (Any Five)**

**(05)**

1. Enlist different types of water erosion
2. State different practices of water harvesting
3. Enlist Mulching practices use by the farmers
4. Define rain water harvesting
5. Define stream bank erosion
6. Define Soil Erosion
7. Define Gully Erosion

**Q.3 Write short notes. (Any five)**

**(10)**

1. State the advantages of earthen bunds to reduce the soil erosion
2. State the advantages of modern irrigation methods
3. State the different Agronomical Practices to control erosion of soil
4. Define contour farming and its advantages in soil erosion.
5. Enlist any six Soil Conservation Centres located in India
6. State the benefits of vegetated waterways

**Q.4 Attempt any Three/Long Questions/Example**

**(15)**

1. Explain various practices adopted by the farmers to control soil erosion
2. Define terrace and explain different types of terraces use to control soil erosion
3. Describe different types of Bench Terraces
4. State the classifications of different types of gullies in details.
5. State reclamation and explain reclamation measures