2023

AGS 2nd Semester Examination

B.Sc. Hons. in Agriculture

Soil and Water Conservation Engineering

PAPER — 203

Full Marks : 50

Time : 2 hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

Answer **all** questions

1. Answer *any* **five** questions from the following : 2×5=10

(a) What do you understand by erosion?

(b) Which erosion is considered as a threat to the farmers and why?

(e) How much energy can be produced if the raindrops fall over 1 ha land with rainfall intensity of 5 cm/hour? Write the unit of soil loss.

(d) What is terracing?

(e) Write the amount of estimated soil loss in India and also mention its permissible value.

(f) Depending upon which factors is LCC done? Name the LCC classes which are eligible for crop cultivation.

(g) Define watershed.

(h) How is land leveling done?

2. Answer *any* **four** questions from the following : 5×4=20

(a) Discuss about gully erosion and landslides.

(b) Explain the rainfall factor of erosion.

(c) How can you harvest water in roof?

(d) How can we estimate the soil loss due to wind erosion?

(e) According to modified criteria (area), classify watershed. What do you understand by hydrology unit?

(f) Discuss zing terracing and contour bunding.

3. Answer *any* **two** questions from the following : 10×2=20

(a) Explain about the mechanism of different types of erosion. How vegetation factor affects water erosion? 8+2=10

(b) Define USLE. Mention all factors of USLE. 2+8=10

(c) How much area is subjected to wind erosion in India? Discuss about saltation, surface creep and suspension. Write the objectives of watershed management. 2+6+2=10

(d) Explain about the ICRISAT technology of watershed management. Discuss about the different components of watershed management. 2+8=10

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