

KATHMANDU UNIVERSITY
End Semester Examination
June/July, 2023

Marks scored:

Level : B.Sc.

Year : III

Exam Roll No. :

Time: 30 mins.

Registration No.:

Course : ENVS 347

Semester : II

F. M. : 20

Date

29 JUN 2023

SECTION "A"

[40Q. × 0.5 = 20 marks]

Mark [X] in the appropriate box.

- The agricultural practices that promote soil conservation
 Overgrazing Agroforestry
 Monocropping Excessive chemical use
- The main cause of deforestation in agricultural sector
 Mining operations Logging for timber production
 Clearing land for agriculture Urbanization
- Highest amount of a renewable source of energy commonly used in agricultural processes
 Fossil fuels Coal power
 Hydro-electricity Solar power
- The term used to describe the loss of fertile soil due to water or wind
 Soil erosion Desertification
 Salinization Soil compaction
- Among the following an example of a greenhouse gas emitted from agricultural activities
 Carbon dioxide Oxygen
 Nitrogen Water vapour
- The process of using natural enemies for the control of pests in agriculture is called
 Genetic modification Biological control
 Pesticide application Mechanical control
- According to the population pressure hypothesis, the first human settlement was started from
 Mexico Fertile Crescent
 Pacific island Ecuador
- It is an example of sustainable irrigation practice in agriculture
 Flood irrigation Sprinkler irrigation
 Drip irrigation Furrow irrigation
- What is the term used to describe the practice of using genetically modified organisms (GMOs) in agriculture?
 Biotechnology Organic farming
 Subsistence farming Conventional farming

10. Dogs, pigs, geese, chickens, ducks domesticated by vegetable planters are
 Herd animals Cattle animals Pet animals Dooryard animals
11. The process of enriching soil with essential nutrients for plant growth is called
 Mulching Irrigation Pruning Fertilization
12. The practice of using livestock and crops together in an integrated system
 Animal husbandry Polyculture
 Mixed farming Agroforestry
13. Number one staple crop of Nepal
 Millet Rice Wheat Corn
14. Largest producer of tea in Asia
 China India Sri Lanka Nepal
15. Which of the following agricultural practices is commonly used in terrace farming in Nepal?
 Strip cropping Crop rotation
 Contour plowing Zero tillage
16. Which Asian country is known for its successful implementation of organic farming practices?
 Japan Thailand Indonesia Bhutan
17. A traditional farming system practiced in Asia, particularly in mountainous regions
 Hydroponics Precision farming
 Jhum cultivation Intensive farming
18. The crop considered as the "golden crop" of Nepal due to its economic significance
 Cardamom Rice Tea Coffee
19. The primary objective of Nepal's Agriculture Development Strategy is to
 Enhance food security Increase agricultural productivity
 Promote organic farming Ensure sustainable agriculture
20. The program in Nepal that aims to promote the adoption of modern agricultural technologies and practices among smallholder farmers through
 Farmers Income Enhancement Program
 Sustainable Agriculture and Rural Development Program
 Prime Minister Agriculture Modernization Project
 National Agricultural Research and Development Fund

Fill the gaps with appropriate word/s or value.

21. is the practice of growing different crops in the same field in sequential seasons to enhance soil fertility and reduce pests and diseases.
22. Branch of agricultural science that deals with the crop production, including cultivation, harvesting, and management techniques is

29 JUN 2023

23. The agricultural device that digs up to 30 cm deep below either by work animals or machines
24. The deterioration of land in arid, semiarid, and dry sub humid areas due to changes in climate and human activities.....
25. Among the inputs like land, labor, capital and fossil fuel energy, contribution of inputis highest in intensive traditional agriculture in developing countries.
26. Usually the government subsidy programs promote and overlook inter-cropping, strip cropping and crop rotation.
27. Stunting, wasting and are the three faces of malnutrition, 2021.
28. In the process of paddy cultivation in Terai rainfed lands, summer season trans planting of rice plants is carried out during the months
29. In mountain regions, maize is planted during the months.....
30. The amount of nitrogen (in percentage) in a commercial chemical fertilizer, "UREA",
31. Nepal started using modern pesticides in agricultural sector from 1950s. The first four pesticides of the time were DDT, Gamaxene, Nicotine sulphate and
32. Among the insects, plant diseases, and weeds, the number of pesticide resistant species is highest among
33. The amount (in gram) of pesticide use per hectare of land in normal organic farming system is
34. Humla district of Nepal cultivates two major crops. One is millet and other is
35. Organic farming is an integrated farming system which involves technical aspects, economic aspects and
36. A challenge of agriculture by the year 2030 is to feed more than people from a hectare of farm.
37. Cultivation of legume crops in between main crops or a week before harvesting main crop is
38. Food insecurity in a specified area at a specific time that threatens lives or livelihoods regardless of causes, context or duration
39. Prevalence of undernourishment is a measure of chronic undernourishment, which is a synonymous term for
40. Climate change will affect all three dimensions of food security i.e., availability, accessibility, and

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SECTION "C"

[3Q. × 7 = 21 marks]

Attempt *ANY THREE* questions.

1. What is the relationship of world population growth and world food production?
2. Briefly highlight the agricultural system in different ecological zones of Nepal.
3. What are the components of sustainable agricultural practices?
4. Discuss the situation of land use classification and land use planning in Nepal.

SECTION "C"

5. Write short notes on *ANY FOUR*. [4Q × 3 = 12 marks]
 - a. Food security
 - b. Integrated Pest Management
 - c. Agricultural system in Asia
 - d. Agricultural development hypothesis
 - e. Agricultural revolution and environmental pollution
6. Differentiate between: [4Q × 3 = 12 marks]
 - a. Soil nutrition and malnutrition
 - b. Organic and subsistence farming
 - c. Plantation and agribusiness
7. Give reasons why? [5Q × 2 = 10 marks]
 - a. Societal development started with "hunters and gatherers"
 - b. Soil condition changes with farming
 - c. Fallow agricultural lands are increasing these days in Nepal
 - d. Food security is complex
 - e. Climate change affects agro-production