

සියලු ම හිමිකම් ඇවිරිණි / முழுப் பதிப்புரிமையுடையது / All Rights Reserved]

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka
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අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2024
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2024
General Certificate of Education (Adv. Level) Examination, 2024

කෘෂි තාක්ෂණවේදය I
விவசாயத் தொழினுட்பவியல் I
Agro Technology I

18 E I

පැය දෙකයි
இரண்டு மணித்தியாலம்
Two hours

Instructions:

- * Answer **all** questions.
- * Write your **Index Number** in the space provided in the answer sheet.
- * Instructions are given on the back of the answer sheet. Follow those carefully.
- * In each of the questions 1 to 50, pick one of the alternatives from (1), (2), (3), (4), (5) which is **correct** or **most appropriate** and mark your response on the answer sheet with a cross (×) on the number of the correct option in accordance with the instructions given on the back of the answer sheet.

1. Two principle characteristics of soft technologies are,
 - (1) creativity and flexibility.
 - (2) rigidity and robustness.
 - (3) simplicity and durability.
 - (4) cheapness and rigidity.
 - (5) precision and robustness.
2. Primary purpose of a spread sheet application is to
 - (1) create presentations.
 - (2) create graphs.
 - (3) analyze data.
 - (4) edit images.
 - (5) prepare documents.
3. The basement of a food pyramid comprises
 - (1) fat.
 - (2) vitamins.
 - (3) proteins.
 - (4) carbohydrates.
 - (5) water.
4. The food item that can provide considerable amounts of protein and carbohydrates is
 - (1) cassava.
 - (2) dry fish.
 - (3) wheat.
 - (4) carrot.
 - (5) sea algae.
5. The enzymatic browning of food can be controlled by
 - (1) adding sodium metabisulphite.
 - (2) reducing its sugar content.
 - (3) increasing the surrounding oxygen concentration.
 - (4) adding calcium chloride.
 - (5) adding ethylene.
6. The key measure to minimize vegetable spoilage due to mechanical damages at the retail market level is to
 - (1) follow good pre-harvesting techniques.
 - (2) introduce good harvesting methodologies.
 - (3) apply high quality chemical preservatives.
 - (4) enhance knowledge of retailers on food quality.
 - (5) use high quality polysac bags.

7. The household food security is best described as,
- (1) storing enough food at home for a few months.
 - (2) growing all the food for household needs in home gardens.
 - (3) managing emergency food supplies in times of crisis.
 - (4) having sufficient food at all times regardless of their nutritional value.
 - (5) ensuring access to nutritious and safe food adequately at all times.
8. Select the correct statement about the soil.
- (1) Soil is a material of about three meter thick layer on the earth surface.
 - (2) Soil formation occurs with deposition of various materials through wind and water.
 - (3) Plants grow well in soil because it includes everything they need.
 - (4) A good quality soil for agricultural purposes is the same as that used for building houses.
 - (5) Healthy soil provides a stable living environment for plant growth.
9. Select the correct statement regarding ecosystems.
- (1) The base tier of the ecological pyramid represents the producers.
 - (2) Natural ecosystems consist of autotrophic edible mushrooms.
 - (3) Oceans are rich in nitrogen, which is an important source of nutrient for plants.
 - (4) Low humidity and low temperature of ecosystems facilitate decomposition of organic matter.
 - (5) Ecosystems are not the primary source of raw materials for industrial and domestic purposes.
10. An advantage of using tissue culture for plant propagation is,
- (1) it requires simple low-cost equipment.
 - (2) it produces genetically diverse plants.
 - (3) it allows year-round propagation.
 - (4) its reliance on soil conditions.
 - (5) it does not require skilled labour.
11. The type of layering that involves bending a branch to the ground and covering a part of it with soil while leaving the tip exposed is,
- (1) air layering.
 - (2) mound layering.
 - (3) serpentine layering.
 - (4) simple layering.
 - (5) compound layering.
12. The hormone which is often used to promote root development in layering techniques is,
- (1) gibberellins.
 - (2) auxins.
 - (3) cytokinins.
 - (4) ethylene.
 - (5) abscisic acid.
13. The medicinal plant of which all plant-parts are used in decoctions is,
- (1) ginger.
 - (2) savandara.
 - (3) moringa.
 - (4) aralu.
 - (5) pawatta.
14. A shade loving medicinal plant is,
- (1) aralu.
 - (2) bulu.
 - (3) nelli.
 - (4) binkohomba.
 - (5) moringa.

15. A special management practice used in medicinal gardens is
- (1) irrigation.
 - (2) pruning.
 - (3) weeding.
 - (4) pest control.
 - (5) fertilizing.
16. The coastal district where the salt marshes are mostly found is
- (1) Mannar. (2) Gampaha. (3) Trincomalee. (4) Ampara. (5) Vavuniya.
17. Preservation of food by drying is due to
- (1) exposure to high temperature during drying.
 - (2) killing microbes during the process of drying.
 - (3) low moisture availability for microbial growth.
 - (4) increase of hardness of food.
 - (5) denature of proteins during drying.
18. "Dolly", the female sheep produced in 1996, is a result of
- (1) gene transfer technology.
 - (2) recombinant DNA technology.
 - (3) cloning technology.
 - (4) hybridization.
 - (5) multiple breeding techniques.
19. Consider the following descriptions regarding four persons.
- A - An owner of a company who acts as its Chief Executive Officer (CEO) and earns good profits.
- B - A person having strong work ethics and good adaptability, and has started a successful new business.
- C - A son of a reputed building contractor who innovated low cost and durable building materials and started his own business by supplying them to the market.
- D - The new manager appointed to a telecommunications company who introduced new changes to the company and increased its profits.
- Of the above, good entrepreneurs are
- (1) A and B only.
 - (2) B and C only.
 - (3) C and D only.
 - (4) A, B and C only.
 - (5) All A, B, C and D.
20. Some of the factors to be considered when selecting a catering service as a business opportunity would be
- (1) competitors, demand for food and availability of land.
 - (2) source of capital funds, machinery needed and efficiency of public transport system.
 - (3) skilled and unskilled labour availability, market situation and abundance of funds.
 - (4) expected profit margin, political stability in the country and household income in the area.
 - (5) technology to be used, livelihoods and education level of the people in the area.

21. Proper management is necessary for a business to be successful. The first step of the business management process would be
- (1) choosing the type of business.
 - (2) identifying the available resources.
 - (3) ensuring the abundance of suitable human resources.
 - (4) setting objectives and goals of the business.
 - (5) planning of strategies.
22. Select the correct statement in relation to planning human resources for a business opportunity.
- (1) Current workforce and future needs should be assessed first.
 - (2) Positions and salaries should be decided at the beginning.
 - (3) Everyone working in the business should have leadership qualities.
 - (4) Only trained people should be assigned to all positions.
 - (5) A welfare programme for the families of the employees should be established.
23. The use of soft technology in food production is
- (1) an advanced scientific concept.
 - (2) an outdated concept.
 - (3) only important for large-scale applications.
 - (4) only important for small-scale applications.
 - (5) an integral part of modern society.
24. The correct order of waste management hierarchy is,
- (1) reduce, reuse, recycle, recovery and disposal.
 - (2) reduce, recycle, reuse, recovery and disposal.
 - (3) reuse, recycle, reduce, recovery and disposal.
 - (4) recovery, reduce, reuse, recycle and disposal.
 - (5) recovery, reduce, recycle, reuse and disposal.
25. The most commonly used method for composting is,
- (1) windrow method.
 - (2) anaerobic method.
 - (3) Chinese method.
 - (4) Indian Method.
 - (5) Sri Lankan method.
26. A good example for an appropriate technology is,
- (1) use of agrochemicals.
 - (2) upland cultivation of paddy.
 - (3) use of chemical fertilizer.
 - (4) use of locally available wood for the structure of a poly tunnel.
 - (5) use of genetically-modified seeds in agriculture.
27. Farm machinery suitable for secondary land preparation in low-land paddy cultivation after ponding is
- (1) sub-soiler mounted on a 4-wheel tractor.
 - (2) Japanese hoe.
 - (3) tine tiller mounted on a 4-wheel tractor.
 - (4) mould board plough mounted on a 2-wheel tractor.
 - (5) disk harrow mounted on a 4-wheel tractor.

28. Select the inter-cultivator.
- (1) Disk harrow.
 - (2) Cono weeder.
 - (3) Disk plough.
 - (4) Tine tiller.
 - (5) Wooden plough
29. Poorly drained soils will lead to,
- (1) reduced irrigation interval.
 - (2) early flowering.
 - (3) reduced disease risk.
 - (4) oxygen deficiency and reduced plant growth.
 - (5) internode elongation and leaf fall.
30. Soil erosion in sloping agricultural lands can be controlled by,
- (1) terracing and contour farming.
 - (2) weeding and crop rotation.
 - (3) applying decaying organic matter.
 - (4) adding soil amendments.
 - (5) applying dolomite to the soil.
31. Irrigation method most suitable for a 2 ha chili cultivation in the dry zone is,
- (1) Pitcher irrigation.
 - (2) Flood irrigation.
 - (3) Drip irrigation.
 - (4) Basin irrigation.
 - (5) Sprinkler irrigation.
32. Drainage of a soil improves with,
- (1) adding clay.
 - (2) applying excess amount of water.
 - (3) salinity.
 - (4) compacting soil.
 - (5) adding sand to the soil.
33. Irrigation interval is the,
- (1) duration of applying water.
 - (2) time to reach permanent wilting point.
 - (3) time of applying water in a day.
 - (4) time between two irrigations.
 - (5) number of days to reach permanent wilting point after irrigation.
34. Of the following, a role of mycorrhiza fungi in nutrient absorption in plants is
- (1) selective nutrient absorption.
 - (2) decreasing root surface area.
 - (3) increasing nutrient and water absorption.
 - (4) absorbing nutrients directly for themselves.
 - (5) acting as a barrier to nutrient absorption.

35. Root exudates are primarily used by plants to
- (1) repel pests.
 - (2) increase soil pH.
 - (3) dissolve nutrients and promote microbial activity.
 - (4) absorb more sunlight.
 - (5) Store energy.
36. Photosynthesis of a plant takes place in
- (1) chlorophyll.
 - (2) chloroplast.
 - (3) photosystem I.
 - (4) photosystem II.
 - (5) Bundle sheath cells.
37. Select the most appropriate answer with respect to tissue culture.
- (1) It is an important component in agricultural biotechnology.
 - (2) It provides planting materials to improve biodiversity of ecosystems.
 - (3) It leads to spread virus diseases across agro-ecosystems
 - (4) It is a plant propagation technique widely used in agriculture.
 - (5) It helps producing plants to yield earlier than normal.
38. Select the correct statement with respect to pesticides.
- (1) Sri Lanka currently does not import pesticides.
 - (2) Weedicides used in agriculture are also a group of Pesticides.
 - (3) Pesticides should be applied to the crops in evenings but not in the mornings.
 - (4) All pesticide recommendations in Sri Lanka are done by the Department of Agriculture.
 - (5) All pesticides can be applied in any time of a day.
39. The aquatic weeds for which biological control have been practically adopted in Sri Lanka are,
- (1) Lantana and Salvinia.
 - (2) Salvinia and Water Hyacinth.
 - (3) Water Hyacinth and Hydrilla.
 - (4) Hydrilla and Salvinia.
 - (5) Lantana and Hydrilla.
40. Polytunnels are preferred compared to agriculture,
- (1) in hot and highly humid environments.
 - (2) in high value crops requiring precise environment control.
 - (3) especially for hydroponic culture.
 - (4) for heat-sensitive crops.
 - (5) for low country dry zone.
41. Solar propagators are preferred compared to an open field as it,
- (1) has lower humidity and high temperature inside.
 - (2) has low light conditions inside.
 - (3) decreases the temperature at night.
 - (4) creates a high-humid warm environment inside.
 - (5) inhibits the growth of fungi.

42. A key factor that contributes to the longevity of cut orchids is
- (1) storing at 33°-35°C.
 - (2) 80-90% humidity.
 - (3) low or medium sunlight.
 - (4) frequent watering.
 - (5) availability of required macro and micro nutrients
43. The most commonly used orchid type for cut flowers is
- (1) Cattleya.
 - (2) Phalaenopsis.
 - (3) Vanda.
 - (4) Dendrobium.
 - (5) Oncidium.
44. Characteristic of a traditional Japanese garden is
- (1) big tall trees with a large canopy for shading.
 - (2) stone lanterns.
 - (3) colorful flowering plants.
 - (4) water streams.
 - (5) flat landscapes.
45. The most important basic information required in designing landscape are,
- (1) existing plants and water bodies in the land.
 - (2) requirements of hard structures.
 - (3) border of the land and water availability.
 - (4) drainage and water holding capacity of soil.
 - (5) climate, neighbors and employers requirements
46. Consider the following statements regarding animal feeds and feeding.
- A - Non-ruminant farm animals are usually fed with concentrate feeds but ruminants need more roughage feeds.
- B - Though roughage feeds are rich in fiber, concentrate feeds do not contain fiber.
- C - Maize and soybean meal are the two main raw materials found in poultry feeds.
- Of the above, the correct statement/s would be
- (1) A only.
 - (2) B only.
 - (3) C only.
 - (4) A and B only.
 - (5) A and C only.
47. Select the correct statement.
- (1) Layer feeds should contain more protein than broiler feeds
 - (2) Broiler starter feeds should contain more protein than broiler finisher feeds
 - (3) Among poultry feeds, the highest energy content is found in growers feeds.
 - (4) Pigments are essential additives in poultry feeds.
 - (5) Natural feedstuffs contain sufficient amounts of vitamins and minerals for farm animals.
48. Candling of eggs during the incubation is done
- (1) to see the development of the chick embryo.
 - (2) between 3 and 18 days of incubation.
 - (3) when eggs are transferred from the setter to the hatcher only.
 - (4) to improve the hatchability of eggs.
 - (5) more frequently during the first week of incubation.

49. Heat signs of a cow were first observed in the morning hours of a sunny day. The cow was inseminated once by Artificial Insemination in the afternoon of the same day but the subsequent pregnancy diagnosis test done was negative. The most possible reason for this result would be
- (1) poor quality of semen used for insemination.
 - (2) heat was not correctly detected.
 - (3) wrong timing of insemination.
 - (4) the cow had to be inseminated 2 – 3 times instead of once.
 - (5) the cow was under heat stress in the afternoon.
50. The shelf life of milk powder is usually longer than that of liquid milk. The main reason for this would be
- (1) liquid milk contains spoiling bacteria.
 - (2) excess water content of liquid milk facilitates activity of spoiling bacteria.
 - (3) the dry form of milk powder prevents microbial growth.
 - (4) milk is subjected to sterilization during spray drying.
 - (5) preservatives are usually added to milk powder during the spray drying process.

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අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2024
 கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2024
 General Certificate of Education (Adv. Level) Examination, 2024

කෘෂි තාක්ෂණවේදය II
 விவசாயத் தொழினுட்பவியல் II
 Agro Technology II

18 E II

පැය තුනයි
 மூன்று மணித்தியாலம்
 Three hours

අමතර කියවීමේ කාලය - මිනිත්තු 10 යි
 மேலதிக வாசிப்பு நேரம் - 10 நிமிடங்கள்
 Additional Reading Time - 10 minutes

Use additional reading time to go through the question paper, select the questions you will answer and decide which of them you will prioritise.

Index No. :

Instructions:

* This question paper consists of 10 questions in 10 pages.

* This question paper comprises of Parts A, B and C.

The time allotted for all three parts is three hours.

Part A - Structured Essay (2 - 9 pages)

* Answer all questions on this paper itself.

* Write your answers in the space provided for each question. Please note that the space provided is sufficient for your answers and extensive answers are **not** expected.

Part B and C - Essay : (page No. 10)

* Select **two** questions from each of the Parts B and C and answer **four** questions only. Use the papers supplied for this purpose.

* At the end of the time allotted for this paper, tie the **three** parts together so that Part A is on the top of Parts B and C before handing over to the supervisor.

* You are permitted to remove only Parts B and C of the question paper from the Examination Hall.

For Examiner's Use only

Part	Question No.	Marks
A	1	
	2	
	3	
	4	
B	5	
	6	
	7	
C	8	
	9	
	10	
Total		

Total

In Numbers	
In Letters	

Code Numbers

Marking Examiner 1.	
Marking Examiner 2.	
Marks Checked by	
Supervised by	

Part A - Structured Essay*Answer all questions on this paper itself.**(Each question carries 100 marks.)*Do not
write
in this
column1. (A) State whether the following statements are **true (✓)** or **false (X)**.

(1) Use of simple tools for land preparation is an example for soft technological application in agriculture. (.....)

(2) Innovations are soft technologies. (.....)

(B) Name **two** commonly used search engines in information technology.

(1)

(2)

(C) Major and minor nutrients available in a food may perform specific role in human nutrition. State a major food sources that could be consumed to fulfil the following nutrients requirements.

Nutrient	Major food source
Carbohydrates
Proteins
Lipids
Vitamin A

(D) State **four** changes that could be observed due to contamination of food.

(1)

(2)

(3)

(4)

(E) State **two** ways that the government policies directly influence the countries food security.

(1)

(2)

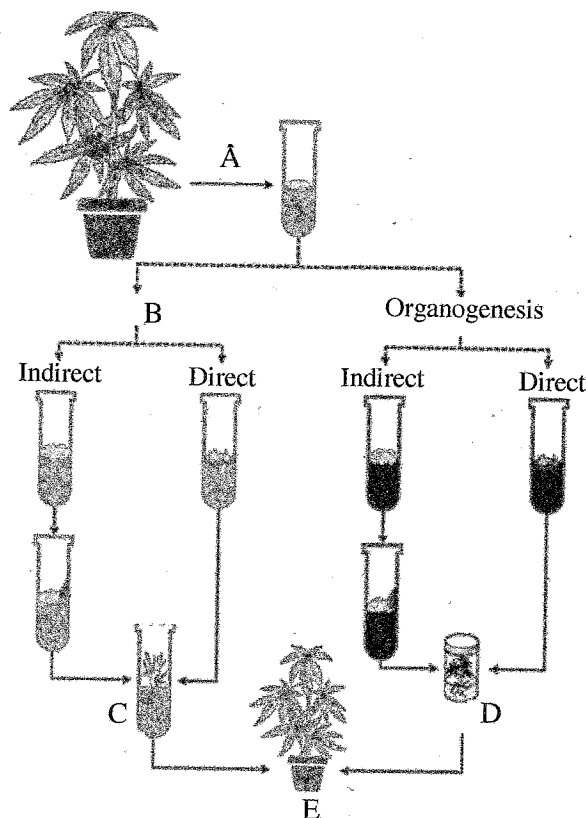
(F) State the important enzyme and the pigment present in root nodules that are essential for nitrogen fixation.

(1) Enzyme :

(2) Pigment :

(G) State the steps or techniques indicated as A, B, C and D in the diagram given below in tissue culture.

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column



- (1) A
- (2) B
- (3) C
- (4) D

(H) State **two** reasons for conducting step E in tissue culture methods.

- (1)
- (2)

(I) List **three** methods of drying medicinal herbs.

- (1)
- (2)
- (3)

Q. 1

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2. (A) Write an example each for a grain type, leaf type and rhizome type which can be included into a herbal porridge.

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- (1) Grain type :
- (2) Leaf type :
- (3) Rhizome type :

- (B) Name **two** examples for the brakish-water ecosystems in Sri Lanka

- (1)
- (2)

- (C) Write a common preservation method for minimizing the postharvest losses of the following agricultural products.

- (1) Black pepper

.....

.....

- (2) Goraka (*Garcinea*)

.....

.....

- (3) Fresh vegetables

.....

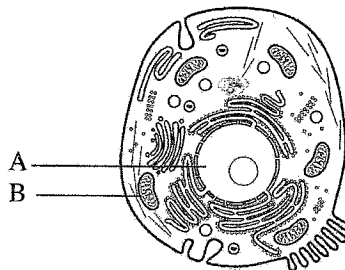
.....

- (4) Potato

.....

.....

- (D) Name the Parts A and B of the diagram representing an animal cell and write the main function of each.



- (1) Name of part A :
- (2) Main function of part A :
- (3) Name of part B :
- (4) Main function of part B :

(E) State **four** steps in developing a marketing plan of a business.

- (1)
- (2)
- (3)
- (4)

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(F) Given below are some information regarding a plant nursery.

Value of the land	Rs. 5 000 000
Value of vehicles	Rs. 4 000 000
Value of the water pump and tools	Rs. 200 000
Value of potted plants	Rs. 500 000
Value of fertilizer in storage	Rs. 100 000
Bank loan to be paid in 4 years	Rs. 2 000 000
Utility bills payable	Rs. 50 000
Average annual income tax	Rs. 40 000

Calculate the following.

(1) Total value of fixed assets:

.....

.....

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(2) Total value of current assets:

.....

.....

.....

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.....

.....

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(3) Total value of current liabilities:

.....

.....

.....

.....

.....

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(4) Total value of non-current liabilities:

.....

.....

.....

.....

.....

(G) State whether the following statements are **true** (✓) or **false** (X).

(1) Success of an industry depends on the appropriate combination of soft and hard technologies (.....)

(2) Sprinkler irrigation system is an example for hard technology, but the management of the irrigation system is an example for soft technology (.....)

(H) Name **one** material each to improve the potassium and phosphorus content in the compost.

(1) Potassium :

(2) Phosphorous :

Q. 2

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3. (A) (i) Write an appropriate use of each of the following materials in agricultural production.

Material	Appropriate use
(1) Coconut husk
(2) Crop residues

(ii) Write **one** use of each of the following agricultural machinery/part of machinery.

Machinery/part of machinery	Use
(1) Disc plough
(2) Seed metering device
(3) Foot valve
(4) Drone

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column

(iii) Write **three** text formatting/Styling available in a Word Processing Software.

(1)

(2)

(3)

(iv) Write **three** factors affecting the crop water requirement.

(1)

(2)

(3)

(v) Write **three** advantages of using centrifugal pumps compared to piston pumps in agriculture.

(1)

(2)

(3)

(B) (i) Define “actively mobile minerals” in relation to plant nutrients.

.....

.....

.....

.....

(ii) List **three** examples for relatively immobile nutrients in plants.

(1)

(2)

(3)

(C) Write **two** main causes for postharvest losses of grains in Sri Lanka.

(1)

(2)

(D) Write **two** traditional methods of storing paddy in Sri Lanka.

(1)

(2)

(E) Write **two** agronomic practices that improve drainage in upland cropping.

(1)

(2)

Q. 3

100

4. (A) (i) Write **three** objectives of mulching crop lands.

- (1)
- (2)
- (3)

(ii) List **four** reasons for using polytunnels in crop production.

- (1)
- (2)
- (3)
- (4)

(B) (i) State the optimum harvesting stage of following cut flowers.

Cut flower	Optimum harvesting stage
(1) <i>Rosa</i> spp.
(2) <i>Anthurium</i> spp.

(ii) State a major function of each of the following components of potting media for cut flowers.

Component of potting media	A major function
(1) Perlite
(2) Vermiculite

(iii) Write an example each for a plant suitable for the following specific landscapes.

Specific landscape	An appropriate plant
(1) border of a home garden
(2) Shade free for a car parking area
(3) Espalier training
(4) Shrub for a Japanese-style garden

(C) (i) Write an example for each of the following grasses.

- (1) Pasture grass :
- (2) Fodder grass :

(ii) State **two** main reason for giving colostrum to calves.

- (1)
- (2)

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in this
column

(iii) Write **two** good characteristics of eggs selected for incubation.

(1)

(2)

(iv) Name the **two** hormones that are secreted by the pituitary gland for the maturation and release of ova in a cow.

(1)

(2)

(v) Name **two** preservatives used during preservation of meat.

(1)

(2)

**

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column

Q.4

100

සියලු ම හිමිකම් ඇවිරිණි / முழுப் பதிப்புரிமையுடையது / All Rights Reserved]

ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව ශ්‍රී ලංකා විභාග දෙපාර්තමේන්තුව
இலங்கைப் பரீட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம் இலங்கைப் பரීட்சைத் திணைக்களம்
Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka
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Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka Department of Examinations, Sri Lanka

අධ්‍යයන පොදු සහතික පත්‍ර (උසස් පෙළ) විභාගය, 2024
கல்விப் பொதுத் தராதரப் பத்திர (உயர் தர)ப் பரீட்சை, 2024
General Certificate of Education (Adv. Level) Examination, 2024

කෘෂි තාක්ෂණවේදය II
விவசாயத் தொழினுட்பவியல் II
Agro Technology II

18 E II

Essay

- * Select two questions from each of the Parts B and C and answer four questions only.
- * Each question carries 150 marks.

Part B

5. (i) Write a brief essay on risk and danger of inappropriate use of technology in agriculture.
(ii) Write the importance of a management information system for a business.
(iii) Describe the impact of overnutrition on heart diseases.
6. (i) Describe the damages that could happen due to food spoilage.
(ii) Describe the major advantages and disadvantages of sexual propagation methods of plants.
(iii) Describe the challenges for the sustainable existence of the aquatic ecosystems.
7. (i) Explain the importance of agro-ecological regions in selecting crops for cultivation.
(ii) Describe the factors affecting microbial activities in a biogas unit.
(iii) Describe the factors to be considered in selecting a software for inventory keeping in a small rural industry.

Part C

8. (i) Write an essay on appropriate use of maize crop-residue.
(ii) Describe the advantages of using appropriate machinery for agricultural production.
(iii) Describe the importance of fertilizer mixtures in modern agriculture.
9. (i) Describe the operational mechanism of a centrifugal water pump.
(ii) Write an essay on soil degradation due to inappropriate agricultural practices.
(iii) Describe the advantages and disadvantages of making silage compared to making hay in Sri Lanka.
10. (i) Describe the limitations of using polytunnels in agriculture in Sri Lanka.
(ii) Describe the cultivation and harvesting of cut foliage, and processing them for export.
(iii) Describe the main activities that should be carried out in a hatchery from the last day of incubation until the chicks are dispatched to a farm.

* * *