

கிடைக்கக்கூடிய அனைத்து உரிமைகளும் பாதுகாக்கப்பட்டன [All Rights Reserved]

புரட்சி கிரேடுகள்/பழைய பாடத்திட்டம்/Old Syllabus

இலங்கைப் பரீட்சைத் திணைக்களம் Department of Examinations, Sri Lanka	81 E I, II
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கல்விப் பொதுத் தராதரப் பத்திர (சாதாரண தர)ப் பரீட்சை, 2017 டிசெம்பர்
General Certificate of Education (Ord. Level) Examination, December 2017

காணொலியை அல்லது உணவுத் தொழினுட்பவியலும் I, II
Agriculture and Food Technology I, II

மூன்று மணித்தியாலம்
Three hours

Agriculture and Food Technology I

Note :

- Answer all questions.
- In each of the questions 1 to 40, pick one of the alternatives (1), (2), (3), (4) which is **correct or most appropriate**.
- Mark a cross (X) on the number corresponding to your choice in the answer sheet provided.
- Further instructions are given on the back of the answer sheet. Follow them carefully.

- The multi-purpose development scheme initiated first in Sri Lanka was
(1) Mahaweli scheme. (2) Nilwala scheme.
(3) Galoya scheme. (4) Moragahakanda scheme.
- The item that has been constructed in order to avoid damages to the bank of a lake from the waves is
(1) Biso Kotuwa. (2) Sluice gate. (3) Salapanawa. (4) Spill gate.
- The weather parameter that can be determined by readings collected from wet and dry bulb thermometer is
(1) atmospheric temperature. (2) light intensity.
(3) rainfall. (4) relative humidity.
- A food item that should be included in a vegetarian diet in order to provide protein to the body is
(1) potato. (2) cowpea. (3) carrot. (4) rice.
- The districts which get rainfall mainly by south-west monsoon rain are
(1) Colombo, Galle and Kalutara. (2) Anuradhapura, Kandy and Trincomalee.
(3) Anuradhapura, Jaffna and Mullaitivu. (4) Mannar, Vavuniya and Colombo.
- Physical properties of soil are
(1) soil texture and soil salinity. (2) soil acidity and alkalinity.
(3) cation exchange capacity and soil texture. (4) soil texture and soil structure.
- The great soil group that is commonly distributed in Polonnaruwa, Anuradhapura and Vavuniya districts is
(1) red yellow podsolic soil. (2) reddish brown latosolic soil.
(3) non-calcic brown soil. (4) reddish brown soil.
- Consider the following factors
A - elevation
B - soil group of the area
C - distance from the equator
D - vegetation of the area
Out of the above factors, those that affect the atmospheric temperature of a particular area are
(1) A, B and C only. (2) A, C and D only.
(3) B, C and D only. (4) All A, B, C and D.
- The equipment that could be used in both 'basic land preparation' and 'inter-cultivation' are
(1) rotavator and disc plough. (2) disc harrow and mamoty.
(3) mamoty and mamoty fork. (4) hand fork and hand shovel.

[see page two]

10. What is the correct choice when the seeds named below as A, B and C are arranged in descending order on the basis of their seed size?
 A - Thampala (Amaranthus)
 B - Brinjal
 C - Okra
 (1) A, B, C (2) B, A, C (3) B, C, A (4) C, B, A
11. The crops of cucurbitaceae family are
 (1) cowpea, green gram and beans. (2) maize, kurakkan and paddy.
 (3) pumpkin, snake gourd and bitter gourd. (4) brinjal, chillie and tomato.
12. The pulse crop that shows hypogeal germination is
 (1) chick pea. (2) green gram. (3) bean. (4) cowpea.
13. The planting materials used in ginger and turmeric cultivation are
 (1) bulbs. (2) bulbils. (3) tubers. (4) rhizomes.
14. The standard width of raised nursery bed is
 (1) 80 cm. (2) 100 cm. (3) 120 cm. (4) 140 cm.
15. The process of separation of soil particles from the earth, transportation and deposition of them in another place is known as
 (1) soil structure. (2) soil genesis. (3) soil erosion. (4) rock weathering.
16. The substance that should be added to an acidic soil in order to neutralize its acidity is
 (1) powdered limestone. (2) organic matter.
 (3) Eppawala apatite. (4) cow-dung.
17. Two micro-nutrients essential for plant growth are
 (1) Zn and Mn. (2) C and N. (3) Mg and K. (4) Ca and S.
18. Leaf mosaic, reduction of green colour of leaves, vein clearing and stunting of plants can be observed in
 (1) fungal infections. (2) bacterial infections. (3) viral infections. (4) nematode infections.
19. This diagram depicts a set up that is used in insect pest management.
 The pest that is controlled by this is
 (1) the aphid. (2) the fruit fly.
 (3) aulacophora. (4) the epilachna.
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20. Flowering of some plants are affected by the day length of the day. This phenomenon is known as
 (1) photosynthesis. (2) photoperiodism. (3) vernalisation. (4) transpiration.
21. Out of the following plants, an alien invasive weed is
 (1) Kuppameniya. (2) Kalanduru. (3) Videlia. (4) Eththadi.
22. In crop cultivation, weeds are controlled by adding straw, dried leaves, rice husk, coir dust etc. as a mulch. In this process, weeds are suppressed because they do not get required
 (1) aeration. (2) water. (3) light. (4) nutrition.
23. The suitable irrigation method that can be used in cultivation in a sloping land with high wind velocity is
 (1) flood irrigation. (2) basin irrigation. (3) sprinkler irrigation (4) drip irrigation.
24. Out of the following, the most environmental friendly food packing substance is
 (1) polythene. (2) polypropylene. (3) cardboard. (4) laminated aluminium sheets.
25. Water soluble, brick red coloured, crystallized chemical fertilizer which commonly used in crop cultivation is
 (1) urea. (2) Eppawala apatite. (3) muriate of potash. (4) ammonium sulphate.
26. Paddy seedlings obtain by a Dapog nursery should be transplanted in the field at the age of
 (1) 5 - 7 days. (2) 10 - 14 days. (3) 21 - 24 days. (4) 30 - 35 days.
27. Under which deficiency of plant nutrients that the crop shows poor growth, stunting and yellowing of older leaves?
 (1) Nitrogen. (2) Phosphorus. (3) Potassium. (4) Calcium.

[see page three]

28. The best condition required for the conversion of plant and animal substances into compost is a/an
(1) dry and acidic condition.
(2) aeration, moisture and neutralised condition.
(3) aeration and acidic condition.
(4) dry and neutralised condition.
29. The reason for maintaining a recommended spacing for each crop in crop cultivation is
(1) to avoid the competition for light, water and nutrients.
(2) to increase the cation exchange capacity of the soil.
(3) to facilitate after care operations.
(4) to reduce transpiration in plant.
30. A food that is preserved by changing the pH value of the food medium is
(1) curd. (2) pickle.
(3) salted lime(lunudehi). (4) fruit jam.
31. In potato plants that were grown in an infertile soil, the edges of the leaves turned into yellow colour and later showed a burnt appearance. The reason for this would be
(1) Nitrogen deficiency. (2) Phosphorus deficiency.
(3) Potassium deficiency. (4) Magnesium deficiency.
32. The fertilizer that should be applied as a quick supplement of phosphorus to a plant is
(1) rock phosphate. (2) Eppawala apatite.
(3) Triple superphosphate. (4) compost.
33. The planting medium which is most suitable to fill hanging bags in soil-less culture is
(1) coir dust. (2) coir. (3) fine sand. (4) perlite.
34. According to the categorization of physical land use, what is recommended to grow in an area categorized as number 1 is
(1) paddy. (2) plantation crops. (3) forests. (4) grass.
35. An Indian cattle breed that can be reared for milk production in Sri Lanka is
(1) Kilari. (2) Jersey. (3) Ayrshire. (4) Sindhi.
36. Consider the following statements on the dry period of milking cows.
A - Dry period is the duration that milking is not done before the calving.
B - The standard dry period of a cow is 60 days.
C - Due to the dry period of a cow the growth of the embryo is enhanced.
Of the above, the correct statements are
(1) A and B only. (2) A and C only.
(3) B and C only. (4) All A, B and C.
37. A poultry disease caused by a protozoa is
(1) pullorum. (2) coccidiosis. (3) gumboro. (4) Ranikhet.
38. A roughage that could be fed to farm animals is
(1) maize seeds. (2) coconut poonac. (3) hay (dried grass). (4) rice bran.
39. Out of the following, which is the correct statement?
(1) The temperature that meat should be stored under deep freezing condition is -18°C .
(2) Sterilized milk is produced by spray drying of fresh milk.
(3) In producing pasteurized milk, microorganisms are used.
(4) In producing yoghurt fungi are used to ferment milk.
40. Some statements on colostrum are given below.
A - Colostrum has laxative effects.
B - Immunity of calves is increased by feeding colostrum.
C - Colostrum should be removed from the udder because it is not suitable for calves to drink.
Out of these, the true statements are
(1) A and B only. (2) A and C only.
(3) B and C only. (4) All A, B and C.

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[see page four]

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

පැරණි නිර්දේශය/பழைய பாடத்திட்டம்/Old Syllabus

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කෘෂිකර්මය හා ආහාර තාක්ෂණය **I, II**
விவசாயமும் உணவுத் தொழினுட்பவியலும் **I, II**
Agriculture and Food Technology I, II

Agriculture and Food Technology II

* Answer five questions only, including the first question and four others.

- In agriculture, it is expected to get a maximum production in crop cultivation and animal husbandry. For this, a good management is needed from the beginning of crop cultivation and animal husbandry until the products are supplied to the market.
 - Mention **two** activities done under basic land preparation in crop cultivation.
 - Write **two** objectives of intercultivation.
 - Write **two** advantages of planting seedlings obtained from a nursery in crop cultivation.
 - Mention **two** methods of sterilizing soil for nurseries.
 - Give examples for **two** vegetable crops in the family fabaceae and **two** vegetable crops in family cucurbitaceae separately.
 - Write **two** reasons for seed dormancy.
 - Mention **two** surface irrigation methods applied in crop cultivation.
 - Name **two** types of edible underground stems and give an example for a crop with each type of underground stem.
 - Mention **two** characteristics of eggs which are suitable for incubation.
 - Mention **two** methods of fruit preservation.
- Water is an essential factor for crop cultivation and proper water management is important.
 - Mention **three** facts that should be considered in selecting a method of irrigation for crop cultivation.
 - (a) Mention **three** means of water loss from soil.
(b) Write **two** activities that could be done for soil water conservation.
 - Mention **two** issues occurred due to poor drainage in cultivating lands.
- Organic and inorganic fertilizer are applied in crop cultivation in order to nurture the crops properly.
 - Mention **four** macronutrients essential for crops growth.
 - Write **three** measures that should be taken to get maximum use of chemical fertilizer which are applied to the crops.
 - Write **three** advantages of applying organic fertilizer instead of applying chemical fertilizers to a crop cultivation.
- Seedling and vegetatively propagated plants are used in crop establishment.
 - Mention **three** advantages of vegetative propagation.
 - Some seeds are treated before planting. Explain the reasons for the following seed treatments.
 - Washing off the jelly like substances around tomato seeds.
 - Mixing Kurakkan seeds with sand.
 - Inoculation soya bean seeds by 'Nitrogen S' bacteria.
 - Describe the procedure of air layering with a labelled diagram.

[see page five]

5. In crop cultivation, the existence of soil water and soil air in a suitable amount is important.
- (i) Name the **three** main types of soil water exist in the soil.
 - (ii) What are the types of soil water at the following soil moisture levels?
 - (a) at saturation level.
 - (b) at the field capacity.
 - (c) at the permanent wilting point.
 - (iii) (a) Write **two** importance of soil air in crop cultivation.
(b) Mention **two** measures that could be taken to improve soil aeration.
6. Insect pest damages can be identified as a reason for the reduction of crop yields qualitatively and quantitatively in crop cultivation.
- (i) (a) Give **two** examples each for the insects causing direct damages on crops in the following ways.
 - (A) - Biting and chewing plant tissues.
 - (B) - Piercing the tissues and sucking the sap.
 - (b) Write an indirect damage caused by piercing and sucking insects.
 - (ii) Write **four** non-chemical methods of insect pest management.
 - (iii) Write **three** protective measures, that should be taken when handling chemical pesticides.
7. In cattle management, it is important to produce clean milk.
- (i) Write **four** measures that should be followed in order to get a clean milk production.
 - (ii) (a) Mention **two** heat signs of a cow.
(b) Write **two** treatments that should be done to a calf within the first day of calving.
 - (iii) Write:
 - (a) the causal organism
 - (b) the symptoms
 - (c) preventive measuresof mastitis in cattle.

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