



SLIATE

SRI LANKA INSTITUTE OF ADVANCED TECHNOLOGICAL EDUCATION

(Established in the Ministry of Higher Education, vide in Act No. 29 of 1995)

Higher National Diploma in Technology (Agriculture)
First Year, Second Semester Examination - 2016
AG 1202 – Crop Production Technologies-Other Field Crops

Instructions for Candidates:

There are three parts (I,II & III)

All questions do not carry equal marks.

Answer **part I** and **part II** on the paper itself, and will be collected after **one (01) hour**.

Two (02) hours for Part III.

No. of questions :07

No. of pages : 05

Time: Three (03) hours

PART I

Q.01. (Total marks 16)

Select the correct answer and underline it.

- (i) Select the areas suitable to cultivate *Glycine max*
- a) Badulla, Kandy, Kegall
 - b) Matale, Badulla, Hambantota
 - c) Matale, Kurunegala, Polonnaruwa
 - d) Mahaweli H, Polonnaruwa, Kegall
- (ii) Select the correct statement on climatic requirement of black gram
- a) Soil pH requirement is 7.5 - 8
 - b) Temperature should be 25-35°C
 - c) Rain fall > 2000mm
 - d) RH 60%
- (iii) What is the exporting large leaved yam in Sri Lanka
- a) Raja ala
 - b) Kekulu ala
 - c) Kadirala
 - d) Dandila
- (iv) Select the family name of sweet potato
- a) Solanaceae
 - b) Leguminosae
 - c) Zingiberaceae
 - d) Convolvulaceae

- (v) Identify the field crop of the variety "Suranimala"
- Manioc
 - Innala
 - Potato
 - Sweet potato
- (vi) What is the incorrect statement on ginger?
- Ginger contain gingerol
 - Ginger tea is used for carminative and symptomatic treatment of colds
 - Underground psudostem is the economically important part
 - Oleo resin that accounts for the characteristic aroma and therapeutic properties.
- (vii) Select recommended varieties of turmeric that used as a spice
- Gantan, Poona, Madurasi mangal
 - Kodin, Alpee, Hite
 - Hite, Gantan, Poona
 - Alpee, Madurasi mangel, Alpee
- (viii) Select the botanical name of ground nut
- Helianthus annus*
 - Arachis hypogea*
 - Brassica juncia*
 - Ipomea batatas*
- (ix) What is the seed requirement for cultivation of sunflower (kg/ha)
- 10-15
 - 10-13
 - 13-16
 - 15-18
- (x) Select the recommended varieties for cultivation of chilli
- MI , MI2,KA2
 - Arunalu, Kochchi, MI hot
 - MI hot, MI3, KA2
 - All above are correct
- (xi) What is the ploughing depth for chilli cultivation
- 15cm
 - 25cm
 - 35cm
 - 45cm
- (xii) Select the most important climatic requirement for cultivation of big onion
- 11-12 hrs. day length
 - > 12hrs. day length
 - > 750mm rain fall
 - 750-1000mm rain fall

(xiii) Select the crop that requires nursery management

- a) Mung bean sesame, chilli
- b) Sun flower, red onion, big onion
- c) Big onion, red onion, chilli
- d) Ground nut, ginger, potato

(xiv) Choose the best period to apply basal dressing for field crops

- a) Before planting
- b) Flowering stage
- c) After establishment
- d) Seed forming stage

(xv) Select the correct statement on potato

- a) Best temperature for tuberization is 18⁰C
- b) Short day condition required for early tuberization
- c) It can be grown in LCIMZ
- d) Temperature requirement is 20-28⁰C

(xvi) Select the correct statement on field crop production

- a) It requires nursery management
- b) It requires dry climatic condition
- c) It requires short day condition
- d) All field crops are short duration crops

PART II

Q2. (Total marks 12)

(i) Name three varieties of big onion

(3 marks)

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(ii) Give three economic importance of turmeric

(3 marks)

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(iii) How do you determine the harvesting stage of black gram (3 marks)

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(iv) Name major nutrients of ground nut (3 marks)

a).....

b).....

c).....

Q3. (Total marks 12)

(i) Give three methods of sterilizing nursery beds in chillie nursery (3 marks)

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(ii) Name three recommended varieties of cassava (3 marks)

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(iii) Give soil requirement for cultivation of red onion (3 marks)

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(iv) Name three growing areas of sesame (3 marks)

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PART III

4. (Total marks 15)

Assume that you are appointed as an agriculture instructor in Nuwara Eliya District. Give your instructions for a potato farmer in following areas.

- i) Suitable varieties to grow (03 marks)
- ii) Selection of suitable seed potatoes (06 marks)
- iii) Field planting of potato (06 marks)

5. (Total marks 15)

- i) Briefly explain the importance of oil crop cultivation (07 marks)
- ii) Describe the field establishment of zinger (08 marks)

6. (Total marks 15)

- i) Describe the time of applying fertilizer in chillie cultivation giving reasons. (05 marks)
- ii) Explain factors to be considered in storing of big onion (10 marks)

7. (Total marks 15)

Write short notes on

- i) Processing of chilli powder (5 marks)
- ii) Ratoon cropping of pigeon pea *Cajanus cajan* (5 marks)
- iii) Inoculation of rhizobium bacterium to soy bean (5 marks)