

SC5142&1
WASSCE 2019
CROP HUSBANDRY
AND HORTICULTURE 2&1
Essay & Objective
3 hours

2 & 1

Name.....

Index Number.....

THE WEST AFRICAN EXAMINATIONS COUNCIL

West African Senior School Certificate Examination
for School Candidates

SC 2019

CROP HUSBANDRY AND HORTICULTURE 2&1

3 hours

*Do not open this booklet until you are told to do so. While you are waiting, read and observe the following instructions carefully. Write your **name** and **index number** in the spaces provided above.*

*This booklet consists of **two** papers. Answer Paper 2, which comes first in your answer booklet and Paper 1 on your Objective Test answer sheet. Paper 2 will last **2** hours after which the answer booklet will be collected. Do **not** start Paper 1 until you are told to do so. Paper 1 will last **1** hour.*

Answer **four** questions in all. All questions carry equal marks.

Illustrate your answers wherever possible with large, clear and fully labelled diagrams.

Credit will be given for clarity of expression, orderly presentation of material and accuracy of detail.

1. (a) List **four** cultural methods of controlling blackpod disease on a cocoa farm. [4 marks]
- (b) Discuss **three** ways in which **each** of the following practices is important in crop production:
(i) parboiling rice;
(ii) fermenting cocoa beans. [12 marks]
- (c) Explain **two** reasons why it is important to nurse cabbage before transplanting. [4 marks]
2. (a) Discuss **five** ways in which vegetables are of nutritional importance to humans. [5 marks]
- (b) Give **two** examples of leafy vegetables. [2 marks]
- (c) List **four** signs of maturity in maize plant. [4 marks]
- (d) Give **four** reasons for staking yam plants in crop production. [4 marks]
3. (a) Differentiate between *budding* and *grafting* as used in crop production. [4 marks]
- (b) Describe **three** cultural practices in the maintenance of lawns. [6 marks]
- (c) Describe **two** methods of establishing lawns. [6 marks]
- (d) Give **four** examples of grasses used for lawn establishment. [4 marks]
4. (a) (i) What are *ornamental plants*. [3 marks]
(ii) Give **five** reasons for establishing ornamental plants on a school compound. [5 marks]
- (b) Discuss **four** factors that are considered in selecting a site for farm. [8 marks]
- (c) State **four** reasons for sowing seeds in drills at the nursery. [4 marks]

5. (a) What is a *growth medium*? [2 marks]
- (b) List **four** substances that could be used as growth medium. [4 marks]
- (c) State **two** advantages and **two** disadvantages of using **each** of the following types of pots for growing house plants:
(i) clay pot; [8 marks]
(ii) plastic pot. [6 marks]
- (d) State **four** advantages and **two** disadvantages of vegetative propagation. [6 marks]
6. (a) Explain **each** of the following terms as used in crop husbandry:
(i) monocropping; [2 marks]
(ii) monoculture; [3 marks]
(iii) crop rotation; [4 marks]
(iv) relay intercropping. [3 marks]
- (b) (i) What is *repotting*? [2 marks]
(ii) Give **three** reasons for repotting a house plant. [3 marks]
- (c) Give **three** advantages of irrigating a farmland. [3 marks]

END OF ESSAY TEST

**DO NOT TURN OVER THIS PAGE
UNTIL YOU ARE TOLD TO DO SO.**

**YOU WILL BE PENALIZED SEVERELY IF YOU ARE
FOUND LOOKING AT THE NEXT PAGE BEFORE
YOU ARE TOLD TO DO SO.**

PAPER 1
OBJECTIVE TEST
[50 marks]

1 hour

1. Use 2B pencil throughout.
2. On the pre-printed answer sheet, check that the following details are **correctly** printed:
 - (a) In the space marked *Name*, check your **surname** followed by your **other names**.
 - (b) In the spaces marked *Examination*, *Year*, *Subject* and *Paper*, check 'WASSCE', 'SC 2019', 'CROP HUSBANDRY AND HORTICULTURE', and '1' in that order.
 - (c) In the box marked *Index Number*, your **index number** has been printed vertically in the spaces on the left-hand side, and each numbered space has been shaded in line with each digit. **Reshade** each of the shaded spaces.
 - (d) In the box marked *Subject Code*, the digits 514213 are printed vertically in the spaces on the left-hand side. **Reshade** the corresponding numbered spaces as you did for your index number.
3. An example is given below. This is for a female candidate whose *name* is Mariam Esi KWAO. Her *index number* is 7102143958 and she is offering *Crop Husbandry and Horticulture 1*

**THE WEST AFRICAN EXAMINATIONS COUNCIL
ANSWER SHEET**

PRINTED IN BLOCK LETTERS		GHA
Name: <u>KWAO MARIAM ESI</u>		
Examination: <u>WASSCE</u>	Year: <u>SC 2019</u>	
Subject: <u>CROP HUSB. & HORT.</u>	Paper: <u>1</u>	

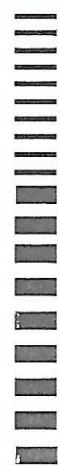
INSTRUCTIONS TO CANDIDATES

1. Use grade 2B pencil throughout.
2. Answer each question by choosing one letter and shading it like this: A B C D E
3. Erase completely any answer you wish to change.
4. Leave extra spaces blank if the answer spaces provided are more than you need.

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For Supervisors only If candidate is absent <input type="checkbox"/> shade this space



Answer all the questions.

Each question is followed by four options lettered A to D. Find the correct option for each question and shade in pencil on your answer sheet, the answer space which bears the same letter as the option you have chosen. Give only one answer to each question. An example is given below.

Which of the following crops is a cereal?

- A. Bean
- B. Ginger
- C. Pepper
- D. Sorghum

The correct answer is Sorghum which is lettered D and therefore answer space D would be shaded.

A B C D E

Think carefully before you shade the spaces; erase completely any answer you wish to change.

Do all rough work on this question paper.

Now answer the following questions:

1. Which of the following crops could be harvested green?
 - A. Cocoa
 - B. Cowpea
 - C. Maize
 - D. Sorghum

2. Vegetables generally contain high amount of
 - A. oils.
 - B. proteins.
 - C. roughages.
 - D. carbohydrates.

3. The process of removing the sheath covering maize cobs is termed
 - A. dehusking.
 - B. shelling.
 - C. threshing.
 - D. winnowing.

4. Which of the following pairs of crops are spices?
 - A. Cabbage and cucumber
 - B. Ginger and tomato
 - C. Onion and okro
 - D. Pepper and garlic

5. A good soil for potting ornamental plants should
 - A. be compact with high moisture content.
 - B. be plastic with low moisture content.
 - C. have constant volume when dry or wet.
 - D. have high percentage of micro-organisms.

6. Which of the following practices is the best for preventing viral diseases in crops?
 - A. Destroying all affected plants
 - B. Planting resistant varieties
 - C. Regular spraying with pesticides
 - D. Sterilizing the soil before planting

7. Pricking-out is carried out in crop production in order to
- control pests of crops.
 - harden the seedlings.
 - reduce competition among plants.
 - reduce transpiration.
8. Crop growth and yield are **mostly** determined by the
- amount of rainfall received.
 - genetic make-up and environment.
 - previous crops grown on the land.
 - quality of fertilizer applied.
9. Which of the following agents are involved in the marketing of agricultural produce?
- Wholesalers
 - Middlemen
 - Consumers
- I and II only
 - I and III only
 - II and III only
 - I, II and III
10. Holes are made at the bottom of containers used in potting ornamental plants in order to
- allow excess air in soil to escape.
 - make pricking-out easy.
 - enhance rapid growth of seedlings.
 - enhance drainage of the soil.
11. Which of the following substances is a rooting hormone?
- Feldspar
 - Calcium bicarbonate
 - Indole Acetic acid
 - Ethylene
12. In grafting, water is prevented from getting into contact with cut surfaces to
- hasten root development.
 - promote leaf formation.
 - prevent the decay of scion.
 - avoid disease infestation.
13. Which of the following pairs of practices are carried out **exclusively** in crop nursery?
- Earthing-up and weed control
 - Pricking-out and hardening-off
 - Shading and pruning
 - Thinning and fertilizer application
14. Which of the following propagating materials are used in sugar cane cultivation?
- Long setts
 - Short setts
 - Soldier setts
- I and II only
 - I and III only
 - II and III only
 - I, II and III

15. Which of the following beds is **not** suitable for cultivating vegetables in a high rainfall area?
- Mound
 - Raised bed
 - Ridge
 - Sunken bed
16. In marketing agricultural produce, assembling is done **mainly** to enhance
- transportation.
 - grading.
 - packaging.
 - advertising.
17. Rosette disease of groundnut is caused by
- bacteria.
 - fungi.
 - protozoa.
 - viruses.
18. Which of the following statements are reasons for planting vegetables on loamy soils? Loamy soils
- are easy to till.
 - retain enough moisture.
 - have few air spaces.
- I and II only
 - I and III only
 - II and III only
 - I, II and III
19. The term *supplying* as used in crop production means
- applying fertilizer to crops.
 - irrigating crops.
 - replacing seedlings which have died.
 - providing seeds to farmers.
20. Which of the following diseases is generally transmitted through the soil?
- Cassava mosaic
 - Maize smut
 - Rice blast
 - Yam rot
21. Citrus fruits could be stored for a long time by
- bottling the juice.
 - exposing the fruits to air.
 - storing the fruits in silos.
 - exposing the juice to air.
22. Tropical rainforest of West Africa is noted for the large scale cultivation of
- vegetables and field crops.
 - tree and field crops.
 - tree and plantation crops.
 - cereals and vegetables.

23. Which of the following methods are used in preservation of vegetables?
- I. Canning
 - II. Refrigeration
 - III. Pasteurization
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III
24. Which of the following factors could influence the selection of a site for vegetable production?
- A. Capital
 - B. Temperature
 - C. Water
 - D. Wind
25. Crops with long and deep roots should be followed by crops with shallow roots in a crop rotation basically to
- A. reduce the activities of soil micro-organisms.
 - B. maintain soil fertility.
 - C. enhance nutrient uptake at different levels.
 - D. improve crop rooting system.
26. The **most** important factor to consider in selecting the type of vegetable to grow in a backyard garden is
- A. availability of water.
 - B. availability of labour.
 - C. taste of the family.
 - D. size of land.
27. Which of the following vegetables belong to the family Cucurbitaceae?
- I. Cucumber
 - II. Watermelon
 - III. Carrots
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III
28. A crop is planted at a spacing of 10 cm by 25 cm on a plot of land measuring 40 m by 5.5 m. Determine the number of seedlings required to plant the entire plot.
- A. 880
 - B. 2200
 - C. 8800
 - D. 55500
29. Which of the following vegetables is a bulb?
- A. Carrot
 - B. Pepper
 - C. Shallot
 - D. Tomato
30. Hanging stones on trees during training of plants is aimed at encouraging branches to
- A. touch the ground.
 - B. grow parallel to the ground.
 - C. produce more fruits.
 - D. produce more flowers.

31. Which of the following conditions on a crop plant are caused by pest infestation?
- Stunted growth
 - Wilting of crops
 - Leaf mottling
- I and II only
 - I and III only
 - II and III only
 - I, II and III
32. Okro belongs to the family
- Amaryllidaceae.
 - Compositae.
 - Malvaceae.
 - Solanaceae.
33. The **main** reason for raising a shed over seedlings on seedbeds is to reduce the
- intensity of raindrop on the seedbed.
 - intensity of solar energy on the seedlings.
 - speed of run-off water on the seedbed.
 - speed of wind on seedlings.
34. Chilli pepper for export is harvested when the fruits are
- green.
 - fully ripe.
 - half ripe.
 - dried.
35. For cassava to grow optimally, it requires
- compact soil with high moisture content.
 - loamy soil with high moisture content.
 - sandy soil which has been sterilized.
 - well-drained clayey soil.
36. When the humidity in the crop environment is high, there is
- high incidence of wilting.
 - increased lodging of crops.
 - increased incidence of fungal attack.
 - reduced photosynthesis in crops.
37. Which of the following effects are associated with diseases on crops?
- Reduction in quality of produce
 - Reduction in photosynthetic ability
 - Reduction in yield
- I and II only
 - I and III only
 - II and III only
 - I, II and III
38. Post-harvest losses in commercial cassava production could be minimized by
- storing tubers in refrigerator.
 - processing tubers into various food forms.
 - peeling and cutting tubers into pieces.
 - burying harvested tubers in the soil.

39. Which of the following pairs of crops are cultivated for their leaves?
- Cauliflower and lettuce
 - Lettuce and spinach
 - Spinach and radish
 - Radish and cauliflower
40. Which of the following methods are used in crop improvement?
- Selection
 - Hybridization
 - Introduction
- I and II only
 - I and III only
 - II and III only
 - I, II and III
41. In the cultivation of maize, nitrogen fertilizer is **most** effective when applied
- at early vegetative stage
 - at wilting stage.
 - at tassling stage.
 - after silking.
42. A farmer sowed seeds at a spacing of 90 cm by 30 cm. Determine the plant population per hectare.
- 111 plants
 - 370 plants
 - 2700 plants
 - 37037 plants
43. Pruning the leaves of some seedlings before transplanting is aimed at
- enhancing root formation.
 - inducing fresh leaf formation.
 - reducing excessive transpiration.
 - reducing field pest attack.
44. Which of the following farming activities are considered as pre-planting operations?
- Burning
 - Liming and pegging
 - Ridging
- I and II only
 - I and III only
 - II and III only
 - I, II and III
45. The **main** reason for planting legumes in a crop rotation is to
- increase the amount of nitrogen in the soil
 - aerate the soil.
 - improve soil drainage.
 - enhance the activities of soil macro-organisms.
46. The inclusion of ash in compost preparation is aimed at
- keeping layers moist.
 - maintaining constant temperature.
 - making layers less compact.
 - creating suitable pH.

47. Which of the following ornamental plants are avenue plants?
- I. Bryophyllum
 - II. Rain tree
 - III. Royal palm
- A. I and II only
 - B. I and III only
 - C. II and III only
 - D. I, II and III
48. The primary objective of growing grass on a school compound that is sloppy is to
- A. direct visitors.
 - B. serve as a playground.
 - C. add beauty to the surroundings.
 - D. check erosion.
49. Which of the following pairs of plants are used for hedging?
- A. Neem and hibiscus
 - B. Hibiscus and cassia
 - C. Cassia and bougainvillea
 - D. Bougainvillea and hibiscus
50. Vegetables are planted in lines basically to
- A. ensure optimum plant population.
 - B. avoid shading of plants.
 - C. prevent pest attack.
 - D. control disease infection.

END OF PAPER