

**PENANG SANGAM HIGH SCHOOL****REVISIONAL WORKSHEET – Weeks 22-24**

<b>QUESTION PAPER AND ANSWER BOOK</b>
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**AGRICULTURAL SCIENCE - 2021****YEAR 12****SECTION A****MULTIPLE – CHOICE QUESTIONS**

1. Which of the following statements best describes agro-silvi cultural system of forestry:
  - A. A large area covered chiefly with trees and undergrowth.
  - B. Untouched, pristine forest that exists in its original condition.
  - C. The deliberate incorporation of trees and other woody species of plants into other types of agricultural activities.
  - D. A system of growing crops and trees on the same piece of land.
  
2. Plants that have adapted to survive in an environment with little water, such as a desert or an ice - snow-covered regions are called;
  - A. Mesophytes.
  - B. Hydrophytes.
  - C. Xerophytes.
  - D. Halophytes
  
3. Plant training is useful to produce a desired result. Plant trainers should be able to shape the plant and also consider their needs. Most plant shoots are said to be
  - A. geotropic.
  - B. sciophilous.
  - C. photophilous.
  - D. thermotropic.
  
4. The *sago* palm is said to be an endemic species in Fiji and is becoming endangered. Which of the following practices would **not** protect the *sago* plants?
  - A. reforestation
  - B. clear logging
  - C. sustainable methods of harvesting trees

- D. proper management and selective harvesting
5. Zip Fiji has cables that attract locals and tourists to hover in and over forest areas for a given fee. This type of forests can be classified under
- A. protection forestry.
  - B. production forestry.
  - C. amenity forestry.
  - D. public forestry.
6. Plant family that does **not** bear flowers and are mostly used for hedge establishment locally is
- A. Hibiscus.
  - B. Jungle flame.
  - C. Gardenia.
  - D. Crotons.
7. Trimming and shaping flowering plants in order to make them look more attractive is
- A. pruning.
  - B. landscaping.
  - C. hydroponics.
  - D. ornamental horticulture.
8. Soil which is to be used as a component of a potting mix is **heated to**
- A. Sublime nutrients left by last crop.
  - B. Destroy pathogens and soil organisms.
  - C. Neutralize the pH of slightly acidic soil.
  - D. Reduce organic matter on the soil surface.
9. *Apis mellifera* is the scientific name of
- A. Mud dauber
  - B. Wasp
  - C. Honey bee
  - D. Hornets

10. The diagram given below illustrates a method of lawn establishment



The **advantage** of using the above method is that it

- A. is less expensive.
  - B. takes less time to establish.
  - C. does not involve much work.
  - D. does not require expertise to establish.
11. Crotons are useful ornamentals because of their beautiful colours.  
A croton can be classified as
- A. an epiphyte.
  - B. a xerophyte.
  - C. a mesophyte.
  - D. a hydrophyte.
12. The agricultural discipline concerned with the production of bedding plants, house plants, pot plants and cut ornamental plant is
- A. Olericulture
  - B. Silviculture
  - C. Floriculture
  - D. Horticulture
13. Seasoning is the process of drying moisture from sawn timber to reduce shrinkage and warping, improve strength and colour, reduce weight and deter pests. These lumber are dried to the moisture content of
- A. between 30 – 35 %
  - B. 25%

- C. between 25 – 30%
  - D. 30%
14. Honey bees have many requirements to work at best level. At what temperature do they work best?
- A. 14°C
  - B. 38°C
  - C. 33°C
  - D. Below 14°C
15. Lowered fertility in cows and bulls is caused by lack of \_\_\_\_\_ in the body
- A. Vitamin A
  - B. Calcium
  - C. Vitamin E
  - D. Vitamin B
16. Which of the following micronutrients are required by cattle?
- A. Iodine, copper, zinc, sulphur, and selenium
  - B. Calcium, phosphorus, and potassium.
  - C. Iodine, copper, zinc, calcium, and selenium
  - D. Calcium, phosphorus, magnesium, and potassium
17. The difficulty in giving birth in cattle is termed as
- A. Calving
  - B. Parturition
  - C. Dystocia
  - D. Incorrect position of the calf during calving
18. The placenta which is expelled from the uterus after the delivery of the calf is also called
- A. Calf
  - B. Heifer
  - C. Afterbirth
  - D. Foetus
19. The product of a dairy farm which is semisolid, prepared from milk fermentation by bacteria often sweetened and flavored is called
- A. Buttermilk
  - B. Ghee
  - C. Cheese
  - D. Yogurt
20. Which of the following diseases is the inflammation of the mammary gland and udder tissues of dairy cattle

- A. Bloat
- B. Mastitis
- C. Brucellosis
- D. Tuberculosis

**SECTION B****SHORT ANSWERS****QUESTION ONE**

1. Discuss one method farmers or the farming community can adopt due to the pollution. [1 mark]

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2. Climate change has brought a lot of changes in many activities throughout the world. Write one disadvantage of changing rainfall pattern noticed in Fiji. [1 mark]

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3. Discuss two disadvantages of genetically modified organisms used today. [2 marks]

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4. Explain one challenge faced in achieving food security. [1 mark]

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5. Zoonosis is a disease that is naturally transmitted between vertebrate animals and humans. Discuss two precautions a person can take to protect themselves. [2 marks]

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6. State the functions of the following farm machines used on the farms. [2 marks]

(i) Tree chopper

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(ii) Rotovator

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7. Explain why egg grader is used in the poultry industry. [1 mark]

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## **QUESTION TWO**

1. Briefly explain one way of maintaining lawns. [1 mark]

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2. Explain two main methods of improving plants. [2 marks]

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3. Differentiate between limbing and sneding processes during the logging of trees. [2 marks]

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4. Discuss two advantages of bee keeping in Fiji. [2 marks]

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5. Differentiate between the following: [2 marks]

i. apiary and apiarist

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ii. corbiculum and spermatheca

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6. Explain one symptom of sac brood disease of honey bees. [1 mark]

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### **QUESTION THREE**

1. The table below shows the income and input cost of two enterprises on a farm in Nokonoko.

Use the table to answer the questions that follow.

<b>Income/cost</b> <b>(\$)</b>	<b>Cassava</b> <b>(\$)</b>	<b>Dalo</b> <b>(\$)</b>
Income/ha (\$/ha)	4350	4890
Cultivation	380	280
Planting material	90	150
Fertilizer and pesticide	140	330
Transport and marketing	250	225

Casual labourers	70	90
Fixed cost	2325	2205

(i) Calculate the gross margin for cassava and dalo [2 marks]

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(ii) Calculate the net return to capital for dalo and cassava [2 marks]

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(iii) If the land is scarce, which crop would you advise the people of Nokonoko village to grow? Give a reason for answer. [1 mark]

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(iv) Which crop would you recommend the people of Nokonoko village to grow if capital is limited? [1 mark]

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2. Discuss one advantage and one disadvantage of gross margin analysis [2 marks]

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3. Discuss two advantages of partial budget [2 marks]

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