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مهندسی کشاورزی (علوم باغبانی) - کد ۱۳۰۵

مدت پاسخگویی: ۱۵ دقیقه

عنوان موارد امتحانی، تعداد و شماره سوالات

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پیوسته به ماه سال ۱۳۸۹

استفاده از ماشین حساب مجاز نیست.
PART A: Vocabulary

Directions: Choose the word or phrase (1), (2), (3), or (4) that best completes each sentence. Then mark the correct choice on your answer sheet.

1- The lecturer spoke slowly, ------- each word clearly.
   1) devoing 2) converting 3) articulating 4) undertaking

2- The police are hoping that the violence will soon -------.
   1) impede 2) subside 3) resign 4) underestimate

3- The teacher mentioned no names but we all knew who he was ------- to.
   1) alluding 2) designating 3) signifying 4) announcing

4- By early morning, they were ready to ------- the trip that the family had been planning for two months.
   1) propel 2) detach 3) simulate 4) commence

5- A ------- of short-lived rules did nothing to increase the country’s stability.
   1) scope 2) numeral 3) mobility 4) succession

6- A ------- is a statement that expresses something that people believe is always true.
   1) decree 2) dictum 3) paradigm 4) declaration

7- People who sleep in the streets highlight the ------- of the homeless.
   1) plight 2) inquiry 3) anomaly 4) impediment

8- The two sides signed a peace ------- that lasted for only two months.
   1) accord 2) accession 3) endowment 4) endorsement

9- Children have a(n) ------- ability to learn language.
   1) cogent 2) innate 3) impulsive 4) competent

10- During a war, the interests of the state are -------, and those of the individual come last.
    1) glorious 2) expressive 3) paramount 4) widespread

PART B: Cloze Test

Directions: Read the following passage and decide which choice (1), (2), (3), or (4) best fits each space. Then mark the correct choice on your answer sheet.

Diet is the daily amount of food and drink that one eats. In order to grow and function properly, the body needs certain essential nutrients. These nutrients are supplied through the diet, and a nutritionally adequate diet (11) ------- provides these nutrients in the specific amounts required by the individual. An adequate diet (12) ------- a variety of foods, for there is no single food, nor even any combination of a few foods, (13) ------- adequate amounts of all the essential nutrients. One of the basic principles of diet therapy is that any modification of the normal diet should relate to a specific physiological condition. (14) ------- a single diet may then be used to treat any disease in which the same physiological condition exists. A diet restricted in sodium, for example, may be prescribed for a person with any disease (15) ------- there is an abnormal retention of fluid in the body, since sodium normally aids in the retention of fluid in the body tissues.

11- 1) that 2) which 3) is one that 4) is the one which it
12- 1) makes up 2) is made up 3) makes up of 4) is made up of
13- 1) supply 2) that supplies 3) that supply 4) for supplying
Part C. Reading Comprehension

Directions: Read the following three passages and choose the best choice (1), (2), (3) or (4). Then mark it on your answer sheet.

PASSAGE 1

Floriculture, or flower farming, is a discipline of horticulture concerned with the cultivation of flowering and ornamental plants for gardens and for floristry, comprising the floral industry. The development, via plant breeding, of new varieties is a major occupation of floriculturists. Floriculture crops include bedding plants, flowering plants, foliage plants or houseplants, cut cultivated greens, and cut flowers. As distinguished from nursery crops, floriculture crops are generally herbaceous. Bedding and garden plants consist of young flowering plants (annuals and perennials) and vegetable plants. They are grown in cell packs (in flats or trays), in pots, or in hanging baskets, usually inside a controlled environment, and sold largely for gardens and landscaping. Geraniums, impatients, and petunias are the best-selling bedding plants. Chrysanthemums are the major perennial garden plant in the United States. Flowering plants are largely sold in pots for indoor use. The major flowering plants are poinsettias, orchids, florist chrysanthemums, and finished florist azaleas. Foliage plants are also sold in pots and hanging baskets for indoor and patio use, including larger specimens for office, hotel, and restaurant interiors. Cut flowers are usually sold in bunches or as bouquets with cut foliage. The production of cut flowers is specifically known as the cut flower industry. Farming flowers and foliage employs special aspects of floriculture, such as spacing, training and pruning plants for optimal flower harvest, and post-harvest treatment such as chemical treatments, storage, preservation and packaging. In Australia and the United States some species are harvested from the wild for the cut flower market.

16. It is stated in the passage that...........................
   1. plant breeding results in the development of better varieties
   2. cut cultivated greens are part of floriculture crops
   3. floriculture is mainly concerned with ornamental plants
   4. flower farming is, in fact, the same as floral industry

17. The passage points to the fact that..........................
   1. nursery crops differ from floriculture crops
   2. geraniums, impatients, and petunias are very popular in the U.S.
   3. ‘controlled environment’ flowers are not suitable for landscaping
   4. most young flowering plants are annuals

18. We understand from the passage that.......................
   1. cut flower industry competes with floriculture
   2. chrysanthemums are a species of florist azalea
   3. artificial flowers last longer than cut flowers
   4. foliage plants are also dealt with in floriculture
19. The passage mentions that.................
  1. chemical treatments of cut flowers helps their better storage
  2. orchids are the most expensive cut flower in the United States
  3. some cut flowers may not be a product of flower farming
  4. learning how to prune flower plants needs special training

20. The word ‘herbaceous’ in the passage (underlined) refers to plants
    with.............. stems.
    1. ‘soft’
    2. ‘long’
    3. ‘thick’
    4. ‘short’

PASSAGE 2

TropHort is an abbreviation for Tropical Horticulture. Tropical Horticulture is a branch of horticulture that studies and cultivates garden plants in the tropics, i.e., the equatorial regions of the world. Tropical Horticulture covers plants such as perennial woody plants, ornamentals, vegetables, and fruits including grapes. The origin of many of these crops is not in the tropics but in temperate zones. Their adoption to tropical climatic conditions is an objective of breeding. Many important crops, however, are indigenous to the tropics. The latter embrace perennial crops such as oil palm, vegetables including okra, field crops such as rice and sugarcane, and particularly fruits including pineapple, banana, papaya, and mango. Since the tropics represent 36% of the Earth’s surface and 20% of its land surface, the potential of tropical horticulture is tremendous. In contrast to that of temperate regions, environmental conditions are less defined by seasonal temperature fluctuations but by seasonality of precipitation. Although such variations are less close to the equator (±5° latitude), the climate in the greater part of the tropics is characterized by distinct wet and dry seasons. Temperature conditions within the tropics depend less on seasonal variations but on altitude. Many of the tropical highlands are, consequently, more favourable for production of temperate plant species than their lowland counterparts. Plants indigenous to the tropics are usually cold sensitive, adapted to high solar radiation, sensitive to small variations in photoperiod (short day plants), and adopted to either extended drought, high precipitation and/or distinct wet and dry seasons. High night temperatures are a major hindrance to adopting temperate crops (e.g., tomato) to the tropics. Furthermore, such conditions promote high respiration rates of plants, resulting in comparably lower net photosynthesis rates.

21. Which of the following is TRUE according to the passage?
    1. TropHort deals mainly with fruits (grapes) and vegetables.
    2. Garden plants can be best cultivated in the tropics.
    3. It is possible to grow temperate-zone crops in the tropics.
    4. It is very difficult to grow tropical plants in glasshouses.

22. The passage points to the fact that..................
    1. rice and sugarcane are two highly productive tropical crops
    2. indigenous crops grow only in equatorial regions
    3. perennial crops have to be grown only in the tropics
    4. okra can be cultivated in the same region as mango is
23. The passage mentions that temperature conditions in the tropics can best be said to be determined by ..................
1. ‘altitude’
2. ‘seasonal fluctuations’
3. ‘environmental conditions’
4. ‘dry seasons’

24. It is stated in the passage that......................
1. cold-sensitive plants cannot be grown in the tropics
2. most of the tropics enjoy only periods of wet seasons
3. 20% of earth’s surface is under tropical plants’ cultivation
4. temperate plant species grow best in tropical highlands

25. The word ‘hindrance’ in the passage (underlined) is best related to ‘lack of.............’
1. ‘water’
2. ‘ease’
3. ‘difficulty’
4. ‘food’

**PASSAGE 3**

In agriculture, post-harvest handling is the stage of crop production immediately following harvest, including cooling, cleaning, sorting and packing. The instant a crop is removed from the ground, or separated from its parent plant, it begins to deteriorate. Post-harvest treatment largely determines final quality, whether a crop is sold for fresh consumption, or used as an ingredient in a processed food product. The most important goals of post-harvest handling are keeping the product cool, to avoid moisture loss and slow down undesirable chemical changes, and avoiding physical damage such as bruising, to delay spoilage. Sanitation is also an important factor, to reduce the possibility of pathogens that could be carried by fresh produce, for example, as residue from contaminated washing water. After the field, post-harvest processing is usually continued in a packing house. This can be a simple shed, providing shade and running water, or a large-scale, sophisticated, mechanized facility, with conveyor belts, automated sorting and packing stations, walk-in coolers and the like. In mechanized harvesting, processing may also begin as part of the actual harvest process, with initial cleaning and sorting performed by the harvesting machinery. Initial post-harvest storage conditions are critical to maintaining quality. Each crop has an optimum range for storage temperature and humidity. Also, certain crops cannot be effectively stored together, as unwanted chemical interactions can result. Various methods of high-speed cooling, and sophisticated refrigerated and atmosphere-controlled environments, are employed to prolong freshness, particularly in large-scale operations. Regardless of the scale of harvest, from domestic garden to industrialized farm, the basic principles of post-harvest handling for most crops are the same: handle with care to avoid damage (cutting, crushing, bruising), cool immediately and maintain in cool conditions, and cull (remove damaged items).

26. The passage points to the fact that.....................
1. parent plants are separated from the ground immediately after harvest
2. cleaning and sorting and packing are part of the harvesting process
3. loss of moisture is a reason why crops deteriorate after harvest
4. postharvest handling is not necessary with some types of crops
27. According to the passage, ......................
   1. a packing house does not need to be a complex specialised building
   2. processed produce does not normally have sanitation problems
   3. automated sorting and packing stations have several walk-in coolers
   4. post-harvest treatment applies only to freshly consumed crops

28. It might be understood from the passage that post-harvesting ......................
   1. cannot be done on a small scale
   2. is much cheaper if it is done automatically
   3. may actually start while harvesting
   4. can change the taste and quality of fruits

29. It is stated in the passage that in post-harvesting ......................
   1. damaged items of crops are kept to a minimum
   2. sensitive crops are separated from other crops
   3. large-scale operations increase the freshness of crops
   4. crops should be generally cooled right after harvest

30. The word ‘residue’ in the passage (underlined) means “what is ...................”
   1. ‘made dirty’
   2. ‘left over’
   3. ‘produced fresh’
   4. ‘carried through’