

JOINT UNIVERSITIES PRELIMINARY EXAMINATIONS BOARD

2015 EXAMINATIONS

AGRICULTURAL SCIENCE: SCI-J151

MULTIPLE CHOICE QUESTIONS: Answer ALL Questions

1. The dominant agent of weathering in the rain forest region of Nigeria is __
 - A. Water
 - B. Chemical
 - C. Animal
 - D. Plant
2. Which of the following is a primary rock-forming mineral?
 - A. Basalt
 - B. Quartz
 - C. Feldspar
 - D. Mica
3. The physical appearance of soil as indicated by the arrangement of individual particle is known as
 - A. type
 - B. Capillarity
 - C. texture
 - D. structure
4. A crop improvement practice where varieties of crops with desirable qualities are imported to a new area is
 - A. Selection
 - B. Quarantine
 - C. hybridisation
 - D. introduction
5. A crop which is self-fertilized is called
 - A. Hybrid
 - B. pure-line
 - C. mutant
 - D. recessive
6. Which of the following mineral element is essential for chlorophyll formulation?
 - A. sodium
 - B. molybdenum
 - C. boron
 - D. manganese

7. What is the effect of nematode on crop plant?
- A. the plant wilts
 - B. flowering is induced
 - C. the roots grow faster
 - D. leaves develop a mosaic appearance
8. Layering in crop production is advantageous because
- A. offspring perform better than their parents
 - B. pollination agents abound to ensure its success
 - C. possible failure of fertilization is avoided
 - D. variability arises in propagates
9. The side effects of the various preventive and control measures of pest and diseases of crops with chemicals does NOT include
- A. improved quality of farm produce
 - B. environmental pollution
 - C. poisoning of insect
 - D. destruction of the pathogen
10. The common name for *Pennisetum purpureum* is ___ grass
- A. bahama
 - B. carpet
 - C. elephant
 - D. guinea
11. Streak disease of maize is caused by
- A. virus
 - B. nematode
 - C. fungus
 - D. bacterium
12. The process of removing excess water from an agricultural land is referred to as
- A. drainage
 - B. dredging
 - C. infiltration
 - D. percolation
13. Taungya farming involves the integration of ___ and _____
- A. animal husbandry, floriculture
 - B. crop husbandry, fish farming
 - C. crop husbandry and forestry
 - D. forestry aquaculture
14. Which of the following is NOT a biotic factor affecting agricultural production
- A. pest and disease organism
 - B. predator

- C. soil organism
 - D. soil pH
15. The factor that influences the availability of plant nutrients is
- A. relative humidity
 - B. soil pH
 - C. sunlight
 - D. temperature
16. Nitrification can best be explained as the conversion of _____ to _____ by bacteria
- A. nitrites, nitrates
 - B. nitrates, nitrites
 - C. nitrates, gaseous nitrogen
 - D. nitrates, commonium compounds
17. All the following are cereal crops except
- A. maize
 - B. millet
 - C. cowpea
 - D. rice
18. Genetic characteristics are passed from parents to offspring through the
- A. chromosome
 - B. centromere
 - C. gene
 - D. zygote
19. The best farm tool for transplanting of seedling is
- A. hand fork
 - B. shovel
 - C. go-to-hell
 - D. hand trowel
20. Chlorosis observed along the veins of leaves is a characteristic symptoms for the deficiency of
- A. magnesium
 - B. nitrogen
 - C. potassium
 - D. sulphur
21. Organisms which transmit a disease organism to crops are called
- A. parasite
 - B. hosts
 - C. bacteria
 - D. vectors

22. Soil profile is the _____
- A. arrangement of different soil particles into different layers
 - B. chemical composition of different layers of soil
 - C. colours exhibited by different layers of soil
 - D. physical composition of different soil layers
23. Plants grown mainly for decoration are called
- A. beautifiers
 - B. flowers
 - C. hedges
 - D. ornamentals
24. The most damaging effect sucking insects on crop is the
- A. consumption of plant tissues
 - B. complete dehydration of crop plants
 - C. lowering of nutritive value of seeds
 - D. transmission of plant diseases
25. Which weed is easily dispersed by man
- A. *Aspilia Africana*
 - B. *Boerhaavia diffusa*
 - C. *bougainvilla spp*
 - D. *Emilia sonchifolia*
26. Which crop can be propagated both sexually and vegetatively
- A. maize
 - B. millet
 - C. oil palm
 - D. groundnut
27. The small-size beetles which bore into maize grains in storage are called
- A. borers
 - B. caterpillars
 - C. grubs
 - D. nymphs
28. The removal of an unproductive cow from the herd is known as _____
- A. Castration
 - B. Culling
 - C. Dubbing
 - D. isolation
29. The restriction of farm animals with rope to a peg is known as _____
- A. Tagging
 - B. tattooing
 - C. Tethering

D. Tieing

30. The practice of mating closely related animals with one another is referred to as _____
- A. Cross Breeding
 - B. hybridization
 - C. Inbreeding
 - D. Line breeding
31. The hormone that is responsible for female secondary sex characteristics is called _____
- A. progesterone
 - B. relaxin
 - C. Testosterone
 - D. oestrogen
32. Incubators are used to _____
- A. hatch eggs
 - B. provide heat for chicks
 - C. stimulate chicks growth
 - D. Store eggs
33. The most common feature of nomadic agriculture is _____
- A. bush fallowing
 - B. the primitive husbandry of crops
 - C. the growing of crops and rearing of animals
 - D. the unsettled husbandry of animals
34. Which of these is not an animal disease?
- A. Coccidiosis
 - B. Newcastle disease
 - C. Rinderpest
 - D. Dumping off
35. The most important reason for grouping cattle, sheep and goats together in the study of farm animals is that they
- A. are work animals
 - B. are viviparous animals
 - C. are ruminants
 - D. eat grass
36. Roughage fed to farm animals is characterized by a very high content of _____

- A. Fibre
 - B. protein
 - C. fat
 - D. antibodies
37. How would you ensure a much faster growth rate for the chicks that are being prepared for market
- A. by increasing the quantity of oyster shell in the feed
 - B. by adding a lot of bone meal to their feed
 - C. by increasing the cereal content of their feed
 - D. by feeding them on fish meal as a supplement to the normal feed.
38. The vector for nagana disease in cattle is _____
- A. the tick
 - B. the tsetse fly
 - C. the roundworm
 - D. lice
39. One of the common features of free-range systems of poultry-keeping is that
- A. egg production from birds is low
 - B. they involve a high capital input
 - C. the birds are free from poultry diseases
 - D. the eggs produced are usually of extra-large grade
40. A livestock farmer intends to improve his breeds of cattle. Which of the following should he adopt to achieve his objective?
- A. Crossing, Flushing and creep feeding
 - B. introduction, adlib, feeding and flushing
 - C. cross breeding, branding and creep feeding
 - D. introduction, selection and breeding.
41. Litter is often used in poultry keeping to _____
- A. control poultry disease
 - B. protect the birds from predators
 - C. provide a roost for the birds
 - D. provide absorbent layers for the birds' droppings
42. What is the name of the organ directly responsible for the respiration of the young of farm animals before birth?
- A. fallopian tube
 - B. placenta
 - C. womb
 - D. Lungs

43. Sleeping sickness in farm animals is usually
- A. caused by a trypanosome
 - B. caused by coccidiosis
 - C. transmitted by trypanosomiasis
 - D. transmitted by brucellosis
44. Which of the following is not an advantage of artificial insemination?
- A. Semen from one bull can be used to serve many cows
 - B. good qualities of exotic breeds are obtained cheaply
 - C. selected males are used extensively
 - D. infectious diseases are widely transmitted
45. An unproductive animal completely removed from the rest of the stock is said to be
- A. quarantined
 - B. culled
 - C. isolated
 - D. confined.
46. When a farm dies as a result of anthrax disease, it is best to
- A. call a veterinary officer for a post-mortem examination
 - B. throw away the carcass into the bush where animals do not graze.
 - C. cull all other animals on the farm
 - D. cremate the carcass or bury it deeply
47. If an injured cow bleeds continuously for several hours, it is most likely that the diet being fed to it is deficient in
- A. Vitamin B
 - B. Vitamin C
 - C. Vitamin D
 - D. Vitamin E
48. For artificial insemination to succeed, it must be timed to fall within the oestrus cycle so that
- A. the semen will be virile
 - B. the female will not resist service
 - C. the sperm will survive
 - D. fertilization will take place.
49. A farmer who applies gypsum on his farmland intends to
- A. decrease soil acidity
 - B. increase soil acidity
 - C. increase microbial activities
 - D. reduce leaching

50. The essential mineral element necessary for chlorophyll formation is
- A. magnesium
 - B. molybdenum
 - C. sodium
 - D. boron

ESSAY QUESTIONS. Answer FOUR Questions in all; One from each Course

- 1(a) What are the importance of soil texture in crop production? Give at least five. (5 Marks)
- (b) List and explain the effects of organic matter to crops. (10 Marks)

- 2 (a) Give reasons why weeds are difficult to control in farms. (5 Marks)
- (b) List three and explain any 3 methods of controlling weeds. (10 Marks)

- 3
- (a) Illustrate the nitrogen cycle. (5 Marks)
- (b) Explain the terms Ammonification; Ammonization and nitrification in relation to nitrogen cycle. (10 Marks)

- 4
- (a) Make a large labeled diagram of a typical plant cell. (5 Marks)
- (b) Explain the functions of the following organelles: (i) Plastids (ii) Mitochondrion and (iii) Lysosome (10 Marks)

- 5
- (a) What are the causes of soil acidity? (5 Marks)
- (b) State any four effects of soil acidity to crops. (5 Marks)
- (c) Explain the importance of liming in agriculture. (5 Marks)

- 6
- (a) What is a nursery? (2 Marks)
- (b) Mention the reasons for establishing a nursery in crop production. (4 Marks)
- (c) With the aid of diagrams, illustrate the stages involved in budding of citrus. (9 Marks)

- 7
- (a) What is seed in agricultural term? (5 Marks)
- (b) Briefly explain the different classes of seeds (5 Marks)
- (c) State the purpose of seed certification (5 Marks)

- 8
- (a) Discuss the cultivation of maize under the following headings: origin, method of propagation, climatic and soil requirements, land preparation and planting and management. (6 Marks)
- (b) How would you know maize plants affected by streak? (9 Marks)

