

MODEL QUESTIONS FOR PG PROGRAMMES

Time: 2 hours

Full Marks:100

Important Instructions:

- ✓ **Section-A:** Comprises of *50 Multiple Choice Questions* with *one Mark Each*
- ✓ **Section-B:** Contains *Five Descriptive Type Conceptual Questions* with *Ten Mark Each*

SECTION-A

1. What is "ALZHEIMER'S" disease?

- (a) It affects liver (b) It affects kidney (c) It affects human immune system
(d) It is a disorder of the brain

2. Plants die in winter by frost because...

- (a) Of desiccation and mechanical damage to tissues (b) There is no transpiration
(c) Respiration ceases at such low temperatures (d) All of these

3. Which one among the following is known as 'animal starch'?

- (a) Cellulose (b) Glycogen (c) Pectin (d) Chitin

4. The fruit after ripping becomes soft. It is due to...

- (a) Dissolution of tannin in sap (b) Dissolution of middle lamella
(c) Formation of ethylene gas (d) Formation of auxin

5. The Phylloclade commonly found in *xerophytic* plants is the modified...

- (a) Leaf (b) Stem (c) Roots (d) Flower

6. The most advanced evolutionary inflorescence is found in...

- (a) Yucca (b) Saliva (c) Calotropis (d) Dahlia

7. How do marine animals survive in water without air contact?

- (a) They take oxygen from water (b) They only produce oxygen in their body
(c) Both 'i' and 'ii' (d) Neither 'i' nor 'ii'

8. Movement of cell against concentration gradient is called...

- (a) Osmosis (b) Active transport (c) Diffusion (d) Passive transport

9. Pine, fir, spruce, cedar, larch and cypress are the famous timber-yielding plants of which several also occur widely in the hilly regions of India. All these belong to...

- (a) Dicotyledons (b) Monocotyledons (c) Gymnosperms (d) Angiosperms

10. Gene mutation takes place in...

- (a) Deoxyribonucleric acid (b) Chloroplast (c) Mitochondrion (d) Ribosome

11. The ABO blood groups were discovered by...

- (a) Charles Darwin (b) Karl Landsteiner (c) Gregor Mendel (d) Watson

12. Which one pair of examples will correctly represent the grouping *Spermatophyta* according to one of the schemes of classifying plants?
(a) *Acacia*, Sugarcane (b) *Pinus*, *Cycas* (c) *Rhizopus*, *Triticum* (d) *Ginkgo*, *Pisum*
13. Which one of the followings is related with the discovery of gibberellins?
(a) Blast disease of rice (b) Rust disease of wheat
(c) Early blight disease of potato (d) 'Bakanae' disease of rice
14. *Withania somnifera* is the botanical name of...
(a) Safed Musli (b) Satawar (c) Ashwagandha (d) *Sarpagandha*
15. Pungency in Radish is due to...
(a) Isothiocyanate (b) Capcisin (c) Solanin (d) Quercetin
16. Which two crops of the following are responsible for almost 75% of pulse production in India?
(a) Moong bean and lentil (b) Gram and moong bean
(c) Gram and pigeon pea (d) Pigeon pea and moong bean
17. *Gynodioecious* varieties of papaya produce...
(a) Only male plants (b) Female and hermaphrodite
(c) Male and hermaphrodite plants (d) Only female plants
18. Water use efficiency is the highest in case of...
(a) Border irrigation (b) Drip irrigation (c) Sprinkler irrigation (d) Flood irrigation
19. In maize plants...
(a) Tassels appear first (b) Silk appears first
(c) Both of these appear at same time (d) None of these
20. TPS technique is related to...
(a) Tomato (b) Potato (c) Sugarcane (d) All of these
21. Stomata open at night in...
(a) CAM Plants (b) C₃ Plants (c) C₄ Plants (d) None of these
22. Botanical name of noble canes is...
(a) *Saccharum barberi* (b) *Saccharum officinarum*
(c) *Saccharum spontaneum* (d) *Saccharum sinensis*
23. Jawahar and Amber are considered as important and good varieties of maize used for...
(a) Fodder (b) Quality Protein Maize (c) Pop-Corn (d) Sweet Corn
24. In which year National Seed Policy was announced?
(a) 2000 (b) 2002 (c) 2003 (d) 2004
25. Training and Visit System introduced in India with assistance of...
(a) IFAD (b) DFID (c) World Bank (d) None of these
26. What usually has happened to tropical horticulturalists when population pressure and/or governments prevented them from following their traditional shifting pattern of farming?

- (a) The horticulturalists usually became wild plant and animal foragers again
- (b) The horticulturalists become cattle or sheep ranchers
- (c) The productivity of their crops dropped dramatically due to extreme soil nutrient depletion and the people became impoverished
- (d) All of the above

27. Trisomy and monosomy is represented by...

- (a) $2n+1, 2n-1$ respectively
- (b) $2n, 2n-1$ respectively
- (c) $2n-1, 2n+1$ respectively
- (d) $2n, 2n+1$ respectively

28. In H.T.S.T. pasteurization, which one of the following organisms is chosen as index organism for killing?

- (a) *S. thermophiles*
- (b) *S. lactis*
- (c) *B. subtilis*
- (d) *M. tuberculosis*

29. α - and β -tubulins are protein components of...

- (a) Actin filaments
- (b) Microtubules
- (c) Intermediate
- (d) All of these

30. Under the head 'Informatics in Agriculture' which institute has developed Grape Expert System, Cabbage Pest Expert System?

- (a) National Institute of Agriculture Extension Management (MANAGE), Hyderabad
- (b) Indian Institute of Horticultural Research (IIHR), Bangalore
- (c) Indian Agricultural Research Institute (IARI), New Delhi
- (d) Centre for Informatics Research and Advancement, Kerala (AGREX)

31. Due to which reason the Napier Grass is mixed with Cluster bean or Cowpea for feeding?

- (a) Due to more HCN content
- (b) Due to more carbohydrates
- (c) Due to oxalic acid
- (d) Due to high crude fibre

32. Which type of RNA has a greater affinity in *Bacillus subtilis* than *E.coli*?

- (a) 16S RNA
- (b) 23S RNA
- (c) 5S RNA
- (d) 28S RNA

33. Which of the following price indices of India is considered for measuring 'Headline Inflation'?

- (a) GDP Deflator
- (b) CPI
- (c) WPI
- (d) All of the above

34. Public Distribution System (PDS) is operated under the responsibility of the...

- (a) State Governments
- (b) Central Government
- (c) Both 'a' & 'b'
- (d) None of a & b

35. Open Market Operation is a part of...

- (a) Monetary Policy
- (b) Fiscal Policy
- (c) Deposit Policy
- (d) All of the above

36. When the insect remain in dormant stage due to temperature higher than the optimum, they are said to have undergone...

- (a) Hibernation
- (b) Aestivation
- (c) Quiescence
- (d) Non of the above

37. Aflatoxin is produced by...

- (a) *Aspergillus nidulans*
- (b) *A. fumigates*
- (c) *A. flavus*
- (d) *A. glaucus*

38. Which one of the following is an egg parasitoid of rice stem borer?

- (a) *Bracon hebetor* (b) *Trichogramma japonicum*
(c) *Platygaster oryzae* (d) *Encarsia formosa*

39. Which one of the following is the natural enemy of congress grass, *Parthenium hysterophorus*?

- (a) *Smicronyx lutulentus* (b) *Ophiomyia lantanae*
(c) *Zygogramma bicolorata* (d) All of the above

40. Reproduction in insect by the development of an egg that has not been fertilized with sperm...

- (a) Parthenocarpic (b) Viviparous (c) Oviparous (d) Parthenogenesis

41. An insecticide which is used as seed treatment for management of sucking pests...

- (a) Imidacloprid (b) Flubendiamide (c) Fenvalerate (d) Deltamethrin

42. Pest population at which control measures has to be initiated...

- (a) GEP (b) EIL (c) ETL (d) DB

43. Yellow vein mosaic disease of okra is transmitted by...

- (a) Whitefly (b) Aphid (c) Beetle (d) Butterfly

44. Root knot in brinjal is caused by which nematode...

- (a) *Meloidogyne incognita* (b) *Heterodera schachtii*
(c) *Anguina tritici* (d) *Aphelenchoides besseyi*

45. Poverty in India is measured on the basis of...

- (a) Slum population in the country (b) Per capita income in different states
(c) Household consumer expenditure (d) Household average income

46. Journal of Rural Development is published by...

- (a) MANAGE (b) NAARM (c) NIRD (d) NCAP

47. Simultaneous existence of socialism and capitalism is a feature of...

- (a) Capitalism (b) Socialism (c) Communism (d) Mixed Economy

48. Which among the following is not an environmental movement?

- (a) Jharkhand Mukti (b) Sardar Sarovar (c) Chipco (d) Silent Valley

49. Which one of the following is 'Social Change'?

- (a) Unavoidable (b) Voluntary (c) Non-avoidable (d) None of these

50. NITI Aayog has replaced which of the following body in India...

- (a) Planning Commission (b) Finance Commission
(c) Disinvestment Commission (d) National Housing Bank

SECTION – B

51. Why is sustainability component important for small production systems? Describe briefly about the Technology Assessment and Refinement.

Ans.

52. Write briefly about the present scenario of Indian horticulture. Illustrate the importance and scope of horticulture based industries of our country.

Ans.

53. What are the causes of farmers' suicide in India? Discuss the role of Agricultural Insurance in curbing the problem of farmers' suicide in Indian context.

Ans.

54. Enlist important insect pests of solanaceous fruit vegetables with their damaging symptoms and suggested the IPM strategies for management of brinjal shoot and fruit borer.

Ans.

55. What do you mean by capital? Discuss the role of capital formation in Indian agriculture. What are the problems of capital formation?

Ans.