

**DO NOT BREAK THE SEAL UNTIL YOU GO THROUGH THE
FOLLOWING INSTRUCTIONS**

QUESTION BOOKLET

Name of Post –SDAO AGRICULTURE

Roll No.

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Booklet Series B

(Enter your Roll number in the above space)

Time Allowed: 2 Hour

Max. Marks: - 100

INSTRUCTIONS :

1. Use only BLUE/BLACK Ball Point Pen.
2. All questions are COMPULSORY.
3. All questions carry equal marks.
4. Check the BOOKLET thoroughly.

IN CASE OF ANY DEFECT - MISPRINT, MISSING QUESTION/S, GET THE BOOKLET CHANGED. NO COMPLAINT SHALL BE ENTERTAINED AFTER THE TEST.

5. Before you mark the answer, fill the particulars in the ANSWER SHEET carefully and correctly. Incomplete & Incorrect particulars may result in your answer sheet not being evaluated by the Computer.
6. After completing the test, handover the ANSWER SHEET to the Invigilator.
7. For Rough Work, Blank Sheet is provided at the end of the question – booklet
8. Before filling up the Answer Sheet, Read the instructions for marking the answer sheet carefully printed on the answer sheet.
9. Write the BOOKLET SERIES given at the TOP RIGHT HAND SIDE of the question booklet in the space provide in the answer sheet, by darkening the corresponding circles.

Note: Each question carry one mark. No negative marking.

1. Grapes contain which of the following acids?
 - a) Malic acid
 - b) Tartaric acid
 - c) Hydrocyanic acid
 - d) Glutonic acid
2. In hilly area which system of fruit planting should be used:
 - a) Contour
 - b) Strip cropping
 - c) Wind strip cropping
 - d) None of these
3. Per capita minimum requirement of vegetables and fruits together is:
 - a) 37 grams per day
 - b) 87 grams per day
 - c) 137 grams per day
 - d) 187 grams per day
4. The approximate number of orange plants in one hectare would be:
 - a) 350
 - b) 375
 - c) 125
 - d) 275
5. Vegetables occupy about _____% of the total cultivated area.
 - a) 2-2.5
 - b) 7-8
 - c) 12-13
 - d) 19-20
6. Which of the following is not a growth promoter?
 - a) Auxin
 - b) Gibberellin
 - c) Abscissic acid
 - d) Cytokinin
7. Which sugar is obtained from grapes?
 - a) Sucrose
 - b) Lactose
 - c) Maltose
 - d) Glucose
8. Anion exchange capacity is found maximum in the case of:
 - a) Kaolinite
 - b) Montmorillonite
 - c) Illite
 - d) None of these
9. Azolla can fix _____ kg N₂/ha/year.
 - a) 80-100
 - b) 30-40
 - c) 10-15
 - d) 100-120

10. Denitrification is more in:
- a) Waterlogged soils
 - b) Well drained soils
 - c) Heavy soils
 - d) Light soils
11. Fungal population is comparatively high in a soil having:
- a) Acidic pH
 - b) Neutral pH
 - c) Alkaline pH
 - d) Acidic to neutral pH
12. Microbial population of a soil in general
- a) Decreases with depth
 - b) Increases with depth
 - c) Constant throughout the profile
 - d) No specific trend
13. Soils with high pH are generally deficient in
- a) Zn and Mn
 - b) B and Fe
 - c) Cu and Mo
 - d) Ca and Mg
14. A condition in which pollination and fertilization take place in an unopened flower is termed as:
- a) Homogamy
 - b) Apogamy
 - c) Polygamy
 - d) Cleistogamy
15. After the cell has undergone mitosis, the amount of DNA in daughter cells will be:
- a) Equal to the parent cell
 - b) Half of the parent cell
 - c) Double of the parent cell
 - d) None of the above
16. An anticodon is a sequence of three nitrogenous bases found on:
- a) DNA
 - b) mRNA
 - c) rRNA
 - d) Trna
17. Bread wheat is:Haploid
- a) Diploid
 - b) Tetraploid
 - c) Auto-allopolyploid
 - d) None of these
18. DNA exists as a double helix as a result of hydrogen bonding between:
- a) Sugar molecules
 - b) Phosphate groups
 - c) Nucleohistones
 - d) Nucleosides

19. Female reproductive organ in the flower is:
- a) Calyx
 - b) Corolla
 - c) Stamens
 - d) Capels
20. Mendel is famous for:
- a) Propounding the laws of inheritance
 - b) Laws of limiting factors
 - c) The theory of mutation
 - d) The discovery of penicillin
21. In India for hybrid seed production in maize we use:
- a) Cytoplasmic genetic male sterility
 - b) Genetic male sterility
 - c) Self incompatibility
 - d) Detasseling
22. In sorghum somatic chromosome number is 20. What would be its chromosome number in the endosperm?
- a) 10
 - b) 20
 - c) 30
 - d) 40
23. The haploid phase in plant is called:
- a) Sporophyte
 - b) Gametophyte
 - c) Zygote
 - d) None of the above
24. By radioactive carbon method the age of the fossil can be determined upto:
- a) 10,000 years
 - b) 15,000 years
 - c) 20,000 years
 - d) 25,000 years
25. Gughia weevil is a pest of:
- a) Paddy
 - b) Wheat
 - c) Jowar
 - d) Maize
26. Nitrogen is applied into transplanted rice in the proportion of:
- a) 50% at basal + Nil at tillering + 50% at panicle emergence stage
 - b) Nil at basal + 50% at tillering + 50% at panicle emergence stage
 - c) 25% at basal + 50% at tillering + 25% at panicle emergence stage
 - d) 50% at basal + 25% at tillering + 25% at panicle emergence stage

27. A combination of horticultural crops, field crops and tree species is called:

- a) Agro-forestry
- b) Silvi-pastoral system
- c) Multipurpose forest tree plantation system
- d) None of the above

28. A photosynthetic unit consists:

- a) 1000 light harvesting chlorophyll molecules
- b) 800 light harvesting chlorophyll molecules and trapping centre
- c) 200 light harvesting chlorophyll molecules
- d) About 400 light harvesting chlorophyll molecules and trapping centre

29. All fruits are in general _____ in nature:

- a) Acidic
- b) Basic
- c) Neutral
- d) All the above

30. Alternaria blight disease can be effectively controlled by:

- a) BHC
- b) Aldrin
- c) Treating seeds with hot water
- d) All of the above

31. An enzyme formed within the cell and not excreted into the medium (intra cellular) is called:

- a) Exoenzyme
- b) Apoenzyme
- c) Endoenzyme
- d) Coenzyme

32. *Arachis hypogea* L. is the botanical name of:

- a) Soybean
- b) Rapeseed
- c) Groundnut
- d) Sugarbeet

33. Auxin is:

- a) An enzyme
- b) A vitamin
- c) A hormone
- d) A protein

34. Average gestation period of cow is:

- a) 261 days
- b) 282 days
- c) 296 days
- d) 310 days

40. Bacterial leaf blight of rice is caused by:

- a) Xanthomonas
- b) Erwinia
- c) Pseudomonas
- d) Bacillus

41. Brown rust of wheat is caused by:

- a) *Puccinia econdite*
- b) *Puccinia graminis tritici*
- c) *Puccinia striformis*
- d) *Puccinia hordei*

37. Cattle semen is frozen and stored for long periods in liquid nitrogen at temperature:

- a) -5°C
- b) -79°C
- c) -135°C
- d) -196°C

38. Chemical formula of single superphosphate is:

- a) $\text{Ca}(\text{H}_2\text{PO}_4)_2$
- b) CaHPO_4
- c) $\text{Ca}_3(\text{PO}_4)_2$
- d) $\text{Ca}(\text{H}_2\text{PO}_4)_2 \cdot \text{CaSO}_4 \cdot \text{H}_2\text{O}$

39. Chlorophyll 'a' usually appears:

- a) Blue gree
- b) Yellow green
- c) Red green
- d) Brown green

40. Yellow coloured fruits and vegetables are rich source of:

- a) Vit. 'E'
- b) Vit. 'C'
- c) Vit. 'A'
- d) Vit. 'B'

41. Decomposition of organic matter in submerged soil is carried out by:

- a) Bacteria
- b) Actinomycetes
- c) Fungi
- d) Earthworm

42. American cotton should normally be planted at the distance of _____ cm.

- a) 45 x 30
- b) 60 x 30
- c) 60 x 45
- d) 90 x 45

43. Availability of phosphorus is maximum at pH:
- Neutral
 - Acidic
 - Alkaline
 - All of the above
44. *Azotobacter* spp fix nitrogen:
- As symbiouts on sugarcane
 - As symbiouts on rice
 - As symbiouts on legume
 - In free soil
45. How many irrigation is required in wheat crop:
- | | |
|------|------|
| a) 6 | b) 7 |
| c) 4 | d) 3 |
46. Name the mode of leaching:
- | | |
|-----------------|------------------|
| a) Percolation | b) Infiltration |
| c) Runoff water | d) All the above |
47. Recovery of sugar in sugarcane crop in India is:
- | | |
|-----------|----------|
| a) 6-8% | b) 8-10% |
| c) 10-15% | d) 4-6% |
48. The optimum temperature for seed germination in *Kharif* season is:
- | | |
|------------|------------|
| a) 10-15°C | b) 20-25°C |
| c) 35-40°C | d) 25-35°C |
49. Which of the following is the correct statement?
- Principle of agri-silviculture is similar to that of intercropping
 - Principle of agri-silviculture is similar to that of intensive cropping
 - Principle of agri-silviculture is similar to that of double cropping
 - Principle of agri-silviculture is similar to that of mono-cropping
50. Asepsis means:
- Exclusion of air
 - Exclusion of moisture/water
 - Exclusion of dust and spray
 - Exclusion of microorganism

51. Which city of Haryana is known as 'City of Weavers'?
- Mahendragarh
 - Fatehabad
 - Karnal
 - Panipat
52. Which of the following Kings' was of Thaneshwar city of Haryana the capital?
- Kanishka
 - Harshwardhan
 - Chandra Gupta Maruya
 - Samrat Ashok
53. Which was the first metal used by man?
- Copper
 - Silver
 - Bronze
 - Brass
54. The Aryans came to India from:
- Eastern Europe
 - Central Asia
 - South-east Asia
 - None of the above
55. The meaning of the 'Buddha' is:
- Anything beyond God
 - Soul after death
 - The Enlightened one
 - The ultimate path for moksha
56. Which planet of the solar system spins on its axis at the fastest rate?
- | | |
|------------|-----------|
| a) Mercury | b) Earth |
| c) Jupiter | d) Saturn |
57. The planets are kept in motion in their respective orbits by:
- Their great size and spherical shape
 - The rotation and density
 - Gravitation and centrifugal force
 - Rotation of the sun on its axis
58. Sea tides show variations because of:
- Variations in gravitational pull of the moon
 - Variations in gravitational pull of the sun
 - Distorted spherical shape of the earth
 - Different phases of the moon

59. Winds and air currents differ in the aspect that:
- Air currents blow much faster than winds
 - Air currents are always moisture laden while the winds are usually dry
 - The winds blow on lands while air currents blow over seas and oceans
 - Winds are horizontal movements of air while air currents are the vertical movements of air
60. The Constituent Assembly which framed the Constitution for Independent India was set up in:
- 1945
 - 1946
 - 1947
 - 1949
61. Who among the following was not a member of the Constituent Assembly established in July, 1946?
- Vallabhbhai Patel
 - Mahatma Gandhi
 - K. M. Munshi
 - J. B. Kripalani
62. If an Indian citizen is denied a public office because of his religion, which of the following Fundamental Rights is denied to him?
- Right to Freedom
 - Right to Equality
 - Right to Freedom of Religion
 - Right against Exploitation
63. The concept of Five Year Plans in India was introduced by:
- Lord Mountbatten
 - Jawaharlal Nehru
 - Indira Gandhi
 - Lal Bahadur Shastri
64. India has:
- Socialistic economy
 - Gandhian economy
 - Mixed economy
 - Free economy
65. The National Development Council gets its administrative support from:
- Planning Commission
 - Finance Commission
 - Administrative Reforms Commission
 - Sarkaria Commission
66. The main constituents of pearls are:
- Calcium carbonate & magnesium carbonate
 - Calcium oxide & ammonium chloride
 - Aragonite & sodium carbonate
 - Ammonium sulphate & sodium carbonate
67. The element found on the surface of the moon is:
- Tin
 - Tungsten
 - Tantalum
 - Titanium

68. The five intertwined rings or circles on the Olympic flag made of white (from left to right) are:
- a) Blue, yellow, black, green, and red
 - b) Yellow, red, green, black, and blue
 - c) Red, green, black, yellow and blue
 - d) Yellow, green, black, blue and red
69. In baseball, the two opposing teams consist of:
- a) 10 players each
 - b) 9 players each
 - c) 8 players each
 - d) 7 players each
70. World Bank is a body:
- a) Of non-official, generous individuals
 - b) That controls world wide foreign exchange operations
 - c) Of major banks operating in different countries
 - d) That gives aid to developing countries
71. Transfer of heat energy from the sun to the moon takes place by:
- a) Radiation only
 - b) Radiation and conduction
 - c) Radiation and convection
 - d) Radiation, conduction and convection
72. The blue colour of the water in the sea is due to:
- a) Absorption of other colours by water molecules
 - b) Reflection of blue light by the impurities in sea water
 - c) Reflection of blue sky by sea water and scattering of blue light by water molecules
 - d) None of the above
73. Which one of the following statements is correct?
- a) All enzymes are proteins
 - b) All proteins are enzymes
 - c) Some enzymes are proteins
 - d) Only bacterial enzymes are proteins
74. Nobel price are distributed annually at:
- a) Manila
 - b) Stockholm
 - c) Geneva
 - d) New York
75. Kinnow is a cross between
- a) King and Willow leaf
 - b) Mandarin and Sweet orange
 - c) Willow leaf and Wilking
 - d) King and Wilking

76. Palmitic and oleic acids are prominent fatty acids in insects and comprise:
- a) Over 40% of the total fatty acids
 - b) Over 50% of the total fatty acids
 - c) Over 60% of the total fatty acids
 - d) Over 70% of the total fatty acids
77. The average locust swarm spreads over:
- a) 5 square kilometres
 - b) 10 square kilometres
 - c) 15 square kilometres
 - d) 20 square kilometres
78. Which group of insecticide is carcinogenic?
- a) Organophosphates
 - b) Carbamates
 - c) Synthetic pyrethroids
 - d) Fumigants
79. Which of the following fungi is predecious on nematodes?
- a) *Didymella sp.*
 - b) *Dactytaria sp.*
 - c) Both of them
 - d) None of them
80. Which of the following is not the pest of paddy?
- a) *Tryporyza incertulus*
 - b) *Lampides boeticus*
 - c) *Nilaparvata lugnes*
 - d) *Nephotettix nigropicta*
81. Association of fungi with roots of higher plants is known as:
- a) Lichen
 - b) Mycorrhiza
 - c) Ascolichen
 - d) Basidiolichen
82. Late blight of potato is caused by:
- a) *Alternaria solani*
 - b) *Xanthomonas campestris pv. Citrii*
 - c) *Phytophthora infestans*
 - d) *Sychytriu endobioticum*

83. Tomato leaf curl is caused by:
- a) Bacteria
b) Fungi
c) Mycoplasma
d) Virus
84. Which was the first plant bacterial disease reported?
- a) Angular leaf spot of cotton
b) Citrus canker
c) Fire blight of apple
d) Bacterial blight of tomato
85. Bacteria responsible for making curd are:
- a) *Streptococcus lactis*
b) *Mycobacterium tuberculosis*
c) *Streptococcus agalactic*
d) *Cornybacterium pyogens*
86. Fat in milk is present in:
- a) Colloidal form
b) Solution form
c) Emulsion form
d) None of the above form
87. Heat period of buffalo is:
- a) 12-16 hours
b) 24-25 hours
c) 18-36 hours
d) None of them
88. Sugar of milk is called:
- a) Glucose
b) Lactose
c) Sucrose
d) Fructose
89. The meat of calf is called as:
- a) Pork
b) Veal
c) Chevron
d) Mutton
90. In unisexual plants sex can be changed by application of:
- a) Auxins
b) ABA
c) Ethanol
d) Cytokinins
91. Sialic acid is a constituent of:
- a) Cell membrane
b) Cell wall
c) Chromosomes
d) Dictyosomes

92. Turgidity of a cell is maintained by:
- a) Diffusion pressure
 - b) Wall pressure
 - c) Osmotic pressure
 - d) Turgor pressure
93. Which of the following elements has not been proved to be essential for plants?
- a) Potassium
 - b) Sodium
 - c) Zinc
 - d) Iron
94. How many agro-climatic zones are there in India?
- a) 11
 - b) 15
 - c) 13
 - d) 21
95. In which year, 14 major banks were nationalized on-
- a) July 1969
 - b) July 1982
 - c) July 1967
 - d) July 1987
96. The term monopolistic competition means-
- a) A large number of sellers deals with heterogeneous products
 - b) A few number of sellers deals with heterogeneous products
 - c) A large number of buyers deals with heterogeneous commodity
 - d) None of these
97. The price which is announced by govt. Before sowing to secure the benefits of farmers is known as _____
- a) MSP
 - b) Issue price
 - c) Levy price
 - d) Retail price
98. When was the famous battle of Panipat fought?
- a) 1539
 - b) 1556
 - c) 1565
 - d) 1576
99. With how many states does the boundary of Haryana touches?
- a) 4
 - b) 5
 - c) 6
 - d) 7
100. Ordinance regarding the prohibition of alcohol was passed on 1st July, 1996. Later on it was withdrawn on –
- a) 1st April, 1998
 - b) 1st April, 1997
 - c) 1st June, 1998
 - d) 1st Aug, 1997