

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

**M.Sc. Agriculture Entrance Test – 2012  
QUESTION BOOKLET  
Paper — I**

**Booklet No.**

**Roll No.**

--	--	--	--	--	--

(Enter your Roll Number in the above space)

**Series**

**A**

**100049**

**Time Allowed : One Hour and Forty minutes**

**Max. Marks : 100**

**INSTRUCTIONS :**

1. Use only BLACK or BLUE Ball Pen.
2. All questions are COMPULSORY.
3. Check the BOOKLET thoroughly.

**IN CASE OF ANY DEFECT - MISPRINTS, MISSING QUESTION/S OR DUPLICATION OF QUESTION/S, GET THE BOOKLET CHANGED WITH THE BOOKLET OF THE SAME SERIES. NO COMPLAINT SHALL BE ENTERTAINED AFTER THE ENTRANCE TEST.**

4. Before you mark the answer, fill in the particulars in the ANSWER SHEET carefully and correctly. Incomplete and incorrect particulars may result in the non-evaluation of your answer sheet by the technology.
5. Write the SERIES and BOOKLET No. given at the TOP RIGHT HAND SIDE of the question booklet in the space provided in the answer sheet by darkening the corresponding circles.
6. Do not use any eraser, fluid pens, blades etc., otherwise your answer sheet is likely to be rejected whenever detected.
7. After completing the test, handover the ANSWER SHEET to the Invigilator.

**SEAL**

000000

1. If the haploid chromosome complement of *Raphanus* is represented by R, that of *Brassica* by B then the chromosome complement of F<sub>2</sub> tetraploid will be
  - (1) Rr Bb
  - (2) RR BB
  - (3) Rrbb
  - (4) rrBB
  
2. Since the loss of fragment of a chromosome results in depletion of genes, Inversions are considered as
  - (1) Linkage suppressor
  - (2) Meiotic suppressor
  - (3) Mitotic suppressor
  - (4) Crossover suppressor
  
3. Crown gall tumours of sunflower are caused by
  - (1) *Agrobacterium*
  - (2) *Rhizopus*
  - (3) *Aspergillus*
  - (4) *Saccharomyces*
  
4. Aseptic seedlings are produced by surface sterilizing the seeds in
  - (1) Ethanol + Iodine sol.
  - (2) Methanol + Sulphur sol.
  - (3) Ethanol + Chlorine
  - (4) Ether + CuSO<sub>4</sub> sol.
  
5. The sterilizing agent for callus culture include :
  - (1) Sodium hypochlorite
  - (2) Mercuric chloride
  - (3) Aqueous bromine sol.
  - (4) All these
  
6. In the history of tissue culture the first tissue to be cultured was from hybrid
  - (1) Wheat plant
  - (2) Tobacco plant
  - (3) Maize plant
  - (4) Rice Plant
  
7. In *Trapa bispinosa* cells at the base of substomatal cavity contain star shaped Calcium oxalate crystals called as
  - (1) Desmogen strands
  - (2) Protoplasmic strands
  - (3) Sphaeraphides
  - (4) Spongy parenchyma

8. Correlation among individuals with regard to their Evolutionary history is called as
- (1) Phenetic relationship                      (2) Cladistic relationship  
(3) Cronistic relationship                      (4) Phylogenetic relationship
9. The double reduction in the number of chromosomes in the Ascus is termed as
- (1) Amitosis                                      (2) Incipient meiosis  
(3) Brachymeiosis                                (4) Pseudomeiosis
10. In Nitrosomanas the electron donor for oxidation is
- (1) Hydrogen ion                                (2) Sulphate ion  
(3) Amionium ion                                (4) Water
11. Bacterial chromosomes lack
- (1) 6-methylamino purine                      (2) 5-methylcytosine  
(3) Thymine                                        (4) Histone protein
12. The only method of reproduction in blue green algae is
- (1) Sexual reproduction                        (2) Budding  
(3) Fission                                        (4) None of the above
13. The photosynthetic reaction which does not require light is called as
- (1) Blackmann reaction                        (2) Hill reaction  
(3) Emerson effect                                (4) Cyclic photophosphorylation
14. The little leaf rosette and mottled leaf conditions are caused by deficiency of
- (1) Phosphorus                                    (2) Pottasium  
(3) Sulphur                                        (4) Zinc
15. Chylorhizy is found in
- (1) Opuntia                      (2) Euphorbia                      (3) Asparagus                      (4) Aloe

16. The net gain of ATP molecules during anaerobic glycolysis is  
(1) 2                      (2) 4                      (3) 8                      (4) 32
17. The Rhizobium fixes atmospheric nitrogen to Ammonia in the presence of a red pigment known as  
(1) Xanthophyll                      (2) Leghaemoglobin  
(3) Haemoglobin                      (4) Phycobilin
18. The structural unit used for propagation in place of seed is known as  
(1) Pistule                      (2) Propagule                      (3) Radicle                      (4) Plumule
19. The fruit produced from the entire Hypanthodium inflorescence is known as  
(1) Syconus                      (2) Amphisara                      (3) Pepo                      (4) Hesperidium
20. Late blight of potato is caused by  
(1) Erysiphae polygonii                      (2) Penicillium thomii  
(3) Phytophthora infestans                      (4) Talaromyces vermiculatus
21. The natural germination inhibitors occurring in seeds are  
(1) Ferulic acid                      (2) Kinetin                      (3) Thiourea                      (4) None of these
22. Wilt of Arhar is a  
(1) Waterborne disease                      (2) Soil borne disease  
(3) Air borne disease                      (4) Seed borne disease
23. Red rust of tea is caused by  
(1) Cephaleuros virescence                      (2) Cephaleuros coffea  
(3) Cephaleuros parasitica                      (4) None of these

24. Coorg and Kent are hybrid varieties of  
(1) *Musa indica* (2) *Oryza sativa* (3) *Zea mays* (4) *Coffea arabica*
25. Antibiotic used to control blast of rice is  
(1) Agromicin (2) Blastocidin (3) Streptomycin (4) Penicillin
26. Kharif crops include  
(1) Barley, Gram, Rice, Mustard (2) Maize, Sesamum, Cotton  
(3) Maize, Gram, Cotton, Mustard (4) Barley, Sesamum, Cotton
27. Mycorrhiza are formed by association of  
(1) Fungus with roots in soil (2) Algae with roots in soil  
(3) Virus with roots in soil (4) Bacteria with roots in soil
28. The oldest known crop grown in India is  
(1) Rice (2) Wheat (3) Gram (4) Millet
29. The drug obtained from flowers is  
(1) Digitalin (2) Chamomile (3) Curare (4) Aconite
30. The process in which the husk of rough rice is removed is  
(1) Hulling (2) Milling (3) Masking (4) Drilling
31. Black gram is very rich in  
(1) Carbohydrate + Citric acid (2) Fats + Phosphoric acid  
(3) Proteins + Nitric acid (4) Proteins + Phosphoric acid
32. The variety of Rice occurring in wild form is  
(1) Javanica (2) Indica (3) Japonica (4) None of these

33. Most drought resistant Kharif pulse crop is  
(1) *Lens culinaris* (2) *Phaseolus aconitifolium*  
(3) *Vigna sinensis* (4) *Glycine max*
34. The species of cotton which covers the highest percent of total area under cultivation in India is  
(1) *Gossypium hirsutum* (2) *Gossypium barbadense*  
(3) *Gossypium arboreum* (4) *Gossypium herbaceum*
35. Pure water at atmospheric pressure has water potential equal to  
(1) Zero (2) One bar (3) 2.3 bar (4) None of these
36. A pair of organism serving as biofertilizers is  
(1) *Albugo* and *Nostoc* (2) *Frankia* and *Nostoc*  
(3) *Pseudomonas* and *E coli* (4) *Aspergillus* and *Actinomycetes*
37. Use of transgenic plants as living bioreactors for the production of chemicals and pharmaceuticals is known as  
(1) Agriculture farming (2) Molecular farming  
(3) Pharmaco technology (4) Organic farming
38. Golden rice is a transgenic crop with trait for  
(1) Pest resistance (2) High Vitamin A content  
(3) Drought resistance (4) High protein content
39. Which one of the following is used as fungal insecticide in Biocontrol programme  
(1) *Trichoderma viridi* (2) *Phytophthora parasitica*  
(3) *Beauveria bassiana* (4) *Aspergillus niger*
40. Leafless variety of pea is  
(1) Arkel (2) Azad pea-1 (3) Aparna (4) L-116

41. Florigen is a combination of  
(1) Gibberellin + Cytokinin (2) Gibberellin +Anthesin  
(3) Cytokinin +Abscicic acid (4) Cytokinin +Anthesin
42. For hilly regions the most suitable variety of late blight resistant variety of potato is  
(1) Kufri Alankar (2) Kufri kundan  
(3) Kufri jyoti (4) Kufri chandermukhi
43. Browning of cauliflower is due to  
(1) Boron deficiency (2) Nitrogen deficiency  
(3) Excess of Boron (4) Molybdenum deficiency
44. The plants that acquire economic importance as a result of some special significance, are known as  
(1) Shelter plants (2) Semanatic plants  
(3) Ornamental plants (4) Economic plants
45. In respect of food value cereals contain a high percentage of  
(1) Proteins (2) Carbohydrates  
(3) Fats (4) Vitamins
46. The system of cultivating rice by raising seedlings in nurseries is known as  
(1) Dry system (2) Semidry system  
(3) Wet system (4) All these
47. An increase in root shoot ratio in a plant causes an  
(1) Increase in rate of transpiration  
(2) Decrease in rate of transpiration  
(3) Increase in absorption  
(4) No effect



48. Stomata which are open for the whole day but closed at night are classified as  
 (1) Alfalfa type (2) Potato type (3) Barley type (4) Equistem type
49. Which of the following is not a farming system on the basis of ownership and management classification  
 (1) Dry farming (2) Tenant farming  
 (3) State farming (4) Cooperative farming
50. IRDP was launched on  
 (1) 2nd Oct 1980 (2) 14th Nov. 1984  
 (3) 2nd Oct.1985 (4) None of these
51. The practice of rotating Jute-Rice-Wheat is popular in  
 (1) Gujrat (2) Rajasthan (3) West Bengal (4) Orrissa
52. Maize is generally grown in a 2 year rotation system with  
 (1) Sugarcane (2) Wheat (3) Potato (4) Barley
53. Successful cultivation of Soybean in many states in India is hampered due to absence of  
 (1) Azotobacter in soil (2) Rhizobium in soil  
 (3) Anabaena in soil (4) Bradyrhizobium in soil
54. Sonara 64, Lema Rajo RR 21 are the varieties of  
 (1) Wheat (2) Rice (3) Potato (4) Barley
55. Water melon, Tinda and Ridge gourd belong to family  
 (1) Papaveraceae (2) Rosaceae  
 (3) Cucurbitaceae (4) Papilionaceae

- 56.** Millets include plant species like
- (1) Pennisetum typhoides (2) Elusine coracana  
 (3) Panicum miliare (4) All these
- 57.** Ramie fibre is obtained from
- (1) Boehmeria nivea (2) Hibiscus cannabinus  
 (3) Croton tiglium (4) None of these
- 58.** Because of similar usage to cereals some plants are categorised as pseudocereals and include species like
- (1) Fagopyrum esculentum (2) Panicum miliare  
 (3) Linum usitatissimum (4) All these
- 59.** Roots and Rhizomes of Vetivera zizanioides are used for the extraction of
- (1) Bast fibers (2) Match sticks (3) Khaskhas oil (4) All these
- 60.** A proteinaceous granule surrounded by starch in the chloroplast is known as
- (1) Volutin (2) Paramylum (3) Pyrenoid (4) Eyespot
- 61.** Non drying oils are extracted from plant species like
- (1) Linum usitatissimum (2) Ricinus communis  
 (3) Cocos nucifera (4) All these
- 62.** Acrothizobium caulinodans is found located in
- (1) Root nodules (2) Stem nodules  
 (3) Both these (4) None
- 63.** The cultural practices generally used for warding of insect invasion in crops involves
- (1) Tillage (2) crop rotation  
 (3) Thinning and pruning (4) All these

64. Bouquet stage shows convergence of chromosome ends towards the centriole during  
 (1) Zygotene (2) Leptotene (3) Pachytene (4) Diplotene
65. Proteases, Nucleases, Lipases occur in  
 (1) Heterophagosomes (2) Autophagosomes  
 (3) Both these (4) None of these
66. Photorespiration in green leaves is carried by  
 (1) Peroxisomes (2) Glycosomes  
 (3) Both these (4) None
67. Bioplasts are absent in  
 (1) Higher animals (2) Algae  
 (3) Protozoa (4) Bacteria
68. Microbodies in plant cell organelles do not possess  
 (1) Flavin oxidase (2) Catalase  
 (3) Urease (4) All these
69. Chlorophyll 'b' is absent in  
 (1) Brown algae (2) Red algae  
 (3) Yellow green algae (4) All these
70. Santa rosa, Burmosa, Stanley are varieties of  
 (1) Walnut (2) Sweet cherry (3) Plum (4) Pear
71. The klamath weed or *Hypericum perforatum* can be controlled by  
 (1) cactoblastus cactorum (2) chrysolin sps  
 (3) both these (4) none of these

72. In banana flowering initiates within a period of \_\_\_\_\_ months after planting  
(1) 2-3                      (2) 4-6                      (3) 6-8                      (4) 9-12
73. Viviparous seeds occur in  
(1) Mango                      (2) Jackfruit                      (3) Cherry                      (4) All these
74. In organic manures the slowest rate of decomposition among the components occurs in  
(1) Cellulose                      (2) Sugar                      (3) Lignin                      (4) Hemicellulose
75. Pusa early dwarf is a variety of  
(1) Apple                      (2) Mango                      (3) Strawberry                      (4) Cherry
76. The protein found in wheat is  
(1) Zein                      (2) Glutin                      (3) Soy                      (4) None of these
77. Pusa giant papaya is a cultivar of \_\_\_\_\_ type  
(1) Dioecious                      (2) Monoecious                      (3) Gynodioecious                      (4) Gynomonoecious
78. Elephant grass is botanically known as  
(1) Pennisetum typhoides                      (2) Pennisetum purpureum  
(3) Panicum miliaceum                      (4) Paspallum acrobiculatum
79. Optimum temperature range for seed germination in rabi season crops is  
(1) 5-10 deg C                      (2) 15-20 deg C                      (3) 20-25 deg C                      (4) >25 d C
80. The plants included in C3 category are  
(1) Barley                      (2) Wheat                      (3) Rice                      (4) All these

81. Phalaris minor weed in wheat is controlled by

- (1) 2-4-D (2) Isoproturon  
(3) Alachlor (4) Atrazine

82. Exponential population growth can be expressed as

- (1)  $dt/dN=rN$  (2)  $dN/rN=dt$   
(3)  $rN/dN= dt$  (4)  $dN/dt =rN$

83. The C:N ratio in soil where N is between immobilized and available form is

- (1) 10:1 (2) 20:1 (3) 30:1 (4) 40 : 1.

84. Delinting of cotton seed is done with the help of

- (1) Sulphuric acid (2) Nitric acid  
(3) Citric acid (4) Hydrochloric acid

85. The gene responsible for N fixation is known as

- (1) Nif gene (2) Norin -10 (3) Norin -1 (4) All these

86. The Rhizobium strain used for biological fixation of Nitrogen in Soybean is

- (1) R.legminosorum (2) R.Japonicum  
(3) R. meliloti (4) R .trifolii

87. The Varuna variety of mustard is

- (1) Indian mustard (2) Rape  
(3) Black sarson (4) Brown sarson

88. Inhibition of leaf area is caused by
- (1) Beijernika (2) Azospirillum  
(3) Azobacter (4) Rhizobium
89. An epipedon with dark color low in base saturation is called as
- (1) Umbric (2) Molic (3) Echeric (4) Histric
90. The prolonged liberal irrigation of agricultural fields can lead to the problem of
- (1) Acidity (2) Aridity  
(3) Metal toxicity (4) Salinity
91. Alternate wetting and drying of soil changes its
- (1) Texture (2) Structure (3) Colour (4) Temperature
92. The relation between mean deviation and standard deviation is
- (1) Md is < Sd (2) Md = 1/2 SD  
(3) Md = Sd (4) None of them
93. Sugarcane top borer is scientifically known as
- (1) Tryporyza nivella (2) T.incertullus  
(3) Both these (4) None of these
94. Latin square design is reliable when used for number of treatments in the range of
- (1) 2-4 (2) 5-6 (3) 8-12 (4) > 12

95. When the coefficient of skewness is zero the distribution is usually
- (1) U - shaped (2) L - shaped  
(3) Assymetrical (4) Symmetrical
96. The root parasite of bajra is
- (1) Cuscuta (2) Striga  
(3) Orobanche (4) Loranthus
97. Ginger is propagated by means of
- (1) Rhizomes (2) Corms (3) Tubers (4) Stolons
98. Yellowing of lawns usually occurs due to
- (1) Water logging (2) Fungal infestation  
(3) Insect infestation (4) None of these
99. The most common green manure crop in Kashmir is
- (1) Kranjii (2) Lentil  
(3) Sunhemp (4) None of these
100. Taccavi is the name for
- (1) LBD loan (2) Govt loan  
(3) Crop price index (4) Crop Insurance

## Space For Rough Work

SEAL