

Seat No.
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Total No. of Pages : 21

**M.Sc Entrance Examination 2026**  
**M.Sc. Agro Chemicals and Pest Management**  
**Sub. Code: 58726**

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**Day and Date : Wednesday, 13-May-2026**  
**Time : 01.00 PM TO 02.30 PM**

**Total Marks : 100**

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**Instructions:**

- 1) All questions are compulsory.
  - 2) Each question carries 1 mark.
  - 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
  - 4) Follow the instructions given on OMR sheet.
  - 5) Rough work shall be done on the sheet provided at the end of question paper.
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1. Methyl orange is a .....

- |                          |              |
|--------------------------|--------------|
| A. Triphenyl methane dye | B. Azodye    |
| C. Quinone dye           | D. Nitro dye |

2. Internal reference used in NMR is .....

- A. CHCl<sub>3</sub>
- B. Acetone
- C. Ethyl acetate
- D. Tetra-Methyl Silane

3. The compound which shows M+2 peak of 1/3 intensity as compared to M in its mass spectrum. This indicates that it contains .....

- |             |               |
|-------------|---------------|
| A. Chlorine | B. Bromine    |
| C. Fluorine | D. Phosphorus |

4. Endosulphan is used as a.....
- A. Insecticide
  - B. Plant growth regulator
  - C. Herbicide
  - D. Fumigant
5. The starting materials for polyamide fiber are.....
- A. Phenol and formaldehyde
  - B. Adipic acid & Hexamine
  - C. Dimethyl terephthalate and ethylene glycol
  - D. Hexamine & ethylene glycol
6. Which of the following compounds shows a singlet, triplet and quartet in NMR?
- A. Acetone
  - B. Ethyl methyl ketone
  - C. Ethyl benzoate
  - D. Ethanol
7. In UV the wavelength of absorption .....
- A. 200-400nm
  - B. 400-800nm
  - C. 100-200nm
  - D. All the above
8. NMR spectra are observed in ..... region
- A. Radio frequency
  - B. Microwave
  - C. UV-Visible
  - D. X-ray



14. Chemical name of washing soda is
- A. Sodium carbonates
  - B. Sodium chloride
  - C. Sodium hydrogen carbonates
  - D. Sodium hydroxide
15. Universal solvent is .....
- A. Liquid NH
  - B. Liquid SO
  - C. Water
  - D. Acetic acid
16. Pure metallic solids are.....
- A. Super conductors
  - B. Good conductors
  - C. Semiconductors
  - D. Insulators
17. Bonding in metals is best explained by .....
- A. Valence bond theory
  - B. Crystal field theory
  - C. Ligand field theory
  - D. Molecular orbital theory
18. MIC is required for the synthesis of.....
- A. IAA
  - B. Carbaryl
  - C. Monocrotophos
  - D. Endosulfan









40. According to Beer-Lamberts Law, the absorbance (A) of the solution is.....
- A. Directly proportional to wavelength
  - B. Indirectly proportional to concentration of solution
  - C. Directly proportional to concentration of solution
  - D. Directly proportional to transmitted light
41. Water molecule has distorted tetrahedral structure because it has...
- A. One lone pair
  - B. Three lone pairs
  - C. Two lone pairs
  - D. No lone pairs
42. According to Arrhenius, acid is the substance which in aqueous medium gives. ....
- A.  $H^+$
  - B.  $OH^-$
  - C.  $Cl^-$
  - D.  $O^{2-}$
43. Which of the following compounds is not aromatic?
- A. Naphthalene
  - B. Benzene
  - C. Phenol
  - D. Cyclohexane
44. Crude oil can be transferred in to petrol
- A. Filtration
  - B. Sedimentation
  - C. Distillation
  - D. Reduction





57. A cell that is able to develop into an organism .....
- A. Totipotency
  - B. Pluripotency
  - C. Multipotency
  - D. Unipotency
58. Animals that have had their DNA manipulated to possess and express an extra (foreign) gene are known as .....
- A. Animals
  - B. Transgenic animals
  - C. Infected animals.
  - D. Bi animals
59. Standard deviation is the square of .....
- A. Mode
  - B. Variance
  - C. Standard error
  - D. Correlation
60. The malaria pathogens are transmitted by which mosquito?
- A. Male anopheles
  - B. Female anopheles
  - C. Male Aedes
  - D. Female Aedes



67. Induced breeding technique is carried out in fish by injecting .....
- A. Pituitary gland extracts
  - B. Both a and b
  - C. Ovarian
  - D. None of the above
68. The development of a male bee (Drone) takes ..... Days
- A. 16 days
  - B. 19 days
  - C. 22 days
  - D. 24 days
69. The growth and proliferation of animal cells in vitro in a suitable culture medium is called .....
- A. Gene expression
  - B. Transgenesis
  - C. Plant tissue culture
  - D. Animal cell culture
70. Embryonic stem cells are derived from .....
- A. Undifferentiated inner cell mass of embryo
  - B. Differentiated inner cell mass of embryo
  - C. Undifferentiated trophoblast cells
  - D. Differentiated trophoblast cells
71. Antibodies are classified in to ..... groups.
- A. two
  - B. three
  - C. four
  - D. five



77. Which one is the largest particulate of the cytoplasm?
- A. Lysosomes  
B. Mitochondria  
C. Golgi apparatus  
D. Endoplasmic reticulum
78. The degradative processes are categorized under the heading of.....
- A. Anabolism  
B. Catabolism  
C. Metabolism.  
D. None of the above
79. The phenomenon of osmosis is opposite to that of.....
- A. Diffusion  
B. Elfusion  
C. Affusion  
D. Coagulation
80. The most active site of protein synthesis is the
- A. Nucleus  
B. Ribosome  
C. Mitochondrion  
D. Cell sap
81. From the biological viewpoint, solutions can be grouped into... ..
- A. Isotonic solution  
B. Hypotonic solutions  
C. Hypertonic solution  
D. All of these
82. Polysaccharides are.. ..
- A. Polymers  
B. Acids  
C. Proteins  
D. Oils

83. A sugar alcohol is...

A. Mannitol

B. Trehalose

C. Xylulose

D. Arabinos

84. A common example of stem tuber is.....

A. Ginger

B. Garlic

C. Onion

D. Potato

85. External agencies are not required in. ....

A. natural vegetative propagation

B. sexual reproduction

C. bisexual reproduction

D. trisexual reproduction

86. The enzyme catalase is found in .....

A. Peroxisomes

B. Glyoxysomes

C. Mitochondria

D. Lysosomes

87. Energy supplied to metabolic processes of the cell is supplied by ..... molecules

A. AMP

B. ATP

C. Sugar

D. Protein



93. The ability of a pathogen to cause disease is .....
- A. Pathogenesis
  - B. Pathogenicity
  - C. pathovar
  - D. Parasexualism
94. Cell theory was given by ..... and Schwann.
- A. Schleiden
  - B. Morgan
  - C. Mendel
  - D. Watson
95. .... is prokaryotic cell.
- A. Pteridophyte
  - B. Bryophyte
  - C. Bacterium
  - D. Angiosperm
96. The cross of F1 individual with its homozygous recessive parent is called.....
- A. back cross
  - B. Test cross
  - C. reciprocal cross
  - D. self-cross
97. Alleles are.....
- A. alternate forms of genes
  - B. chromosomes that have crossed over
  - C. Linked genes
  - D. homologous chromosome

98. BLAST is. ....
- A. Basic Local Alignment Tool
  - C. Basic Legal Alignment Tool
  - B. Basic Local Assignment Tool
  - D. Basic Local Assessment Tool
99. Which is the fungus causes blast disease on rice?
- A. Pyricularianryzae
  - C. Alternariaoryzae
  - B. Cercosporaoryzue
  - D. Fusarium oryzae
100. Water blooms are formed by
- A. Lemna
  - B. Hydrilla
  - C. Water hyacinth
  - D. Planktonic algae



**ROUGH WORK**