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| Seat No. | |
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ENT-05

Total No. of Pages : 16

P.G. Entrance Examination, 2025
M.Sc. AGROCHEMICALS AND PEST MANAGEMENT
Subject Code : 58726

Day and Date : Wednesday, 14-05-2025

Total Marks : 100

Time : 1.00 p.m. to 2.30 p.m.

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.

1.are called suicide bags

- | | |
|----------------|-----------------|
| A. Lysosomes | B. Mesosomes |
| C. Dictyosomes | D. Mitochondria |

2.are required as building blocks for polypeptide chain synthesis.

- | | |
|----------------|---------------------|
| A. Fatty acids | B. Amino acids |
| C. Nucleotides | D. Phosphoric acids |

3.National Park in India is made for conservation of Rhinoceros.

- | | |
|------------------|--------------|
| A. Sanjay Gandhi | B. Tadoba |
| C. Chandoli | D. Kaziranga |

4. Rattle snake is an example ofhabitat

- | | |
|-----------|-------------------------|
| A. Desert | B. Tropical rain forest |
| C. Cave | D. Grassland |

5.node is known as pacemaker

- | | |
|-------|-------|
| A. VA | B. AV |
| C. AS | D. SA |

6. Tuberculosis in Man is caused by
- A. Mycobacterium B. Salmonella
C. Plasmodium D. Spirochaetes
7. Which of the following is the polymer of alpha-d-glucose?
- A. Starch B. Cellulose
C. Fructose D. Glucose
8. o-nitrophenol is separated from p-nitrophenol from the reaction mixture.....
- A. Azeotropic Distillation B. Steam Distillation
C. Fractional Distillation D. Distillation Distillation
9. Chemical name of washing soda is.....
- A. Sodium carbonates
B. Sodium hydrogen carbonates
C. Sodium chloride
D. Sodium hydroxide
10. In Gas Chromatography gas acts as
- A. Stationary Phase B. Solvent
C. Mobile phase D. Solute
11. Which of the following compounds is not aromatic?
- A. Naphthalene B. Phenol
C. Benzene D. Cyclohexane
12. The crystalline structure of NaCl is
- A. Hexagonal close packing B. Square planar
C. Face centered cubic D. Body centered cubic

13. Amino acids react to form peptides and proteins this process is known as
- A. Substitution polymerization
 - B. Addition polymerization
 - C. Condensation polymerization
 - D. Hydration polymerization
14. Which of the following vectors is used in crop improvement and crop management?
- A. Agrobacterium
 - B. Cosmid
 - C. Plasmid
 - D. Phasmid
15. Which of the following is not a common method for purification?
- A. Sublimation
 - B. Electrolysis
 - C. Crystallization
 - D. Chromatography
16. Bioinformatics is an interdisciplinary field, which connects.....Mathematics,
- A. History
 - B. Geography
 - C. Computer science
 - D. Sociology
17. The degradative processes are categorized under the heading of
- A. Anabolism
 - B. Metabolism
 - C. Catabolism
 - D. None of the above
18. Wheat is an example of
- A. haploid plant
 - B. allopolyploid plant
 - C. diploid plant
 - D. autopolyploid
19. is structural and functional unit of kidney
- A. Alveolus
 - B. Neuron
 - C. Nephron
 - D. Villi

20. The disease Ascariasis is produced by
- | | |
|-------------------|----------------|
| A. Pin worm | B. Hook worm |
| C. Filarial worms | D. Round worms |
21. In metaphase chromosomes undergo
- | | |
|-------------------------|-----------------------|
| A. less condensation | B. no condensation |
| C. maximum condensation | D. least condensation |
22. Which of the following growth hormones produces apical dominance?
- | | |
|----------------|--------------|
| A. Ethylene | B. Cytokinin |
| C. Gibberellin | D. Auxin |
23. Ammonia is used in bulk for the production of
- | | |
|---------------|---------------|
| A. Food items | B. Fertilizer |
| C. Soap | D. Pesticides |
24. In Kjeldhal's method nitrogen is liberated in the reduced form of.....
- | | |
|---------------------------------|-------------------|
| A. NO_2 | B. UNO_2 |
| C. $(\text{NH}_4)_2\text{SO}_4$ | D. HNO_2 |
25. Alpha particles emitted in radioactive disintegration are
- | | |
|------------------|--------------------|
| A. Helium nuclei | B. Hydrogen atoms |
| C. Helium atoms | D. Hydrogen nuclei |
26. Cyclo-octane is
- | | |
|------------------|-------------------|
| A. Aromatic | B. Non-aromatic |
| C. Anti-aromatic | D. Pseudoaromatic |
27. Lactose is a
- | | |
|-------------------|--------------------|
| A. Monosaccharide | B. Poly saccharide |
| C. Disaccharide | D. None of these |

28. Wittig reaction is used to convert carbonyl compound into

- A. Ester
B. Amine
C. Olefin
D. Acid

29. Pyrethroids are used in agriculture because

- A. Their quick knock-down action on insect
- B. They are less toxic to mammals
- C. Small quantity is required for action on insects
- D. All the above

30. Which of the following is the most stable conformation of cyclohexane?

- A. Boat B. Skew
C. Chair D. Half-chair

31. Citral is a

- A. Monoterpene B. Squiterpine
C. Diterpene Isoprene D. Alkaloid

32. Which one of the following is not used as a detector in flame emission photometer?

- A. Photovoltaic cell B. Photo-emissive tube
C. Photonic cell D. Chromatogram

33. Diethyl malonate reacts with urea to give

- A. Butyric acid B. Glutaric acid
C. Mandelic acid D. Barbituric acid

34. Bonding in metals is best explained by

- A. valence bond theory B. ligand field theory
C. Crystal field theory D. Molecular orbital theory

35. Muscle Fatigue is due to

- | | |
|-------|----------------|
| A. Na | B. Lactic acid |
| C. K | D. Citric acid |

36. Mark the correct statement.

- A. Histones are basic proteins
- B. Histones are neutral proteins
- C. Histones are acidic proteins
- D. Histones are not neutral proteins

37. How many classes are in the antibodies?

- | | |
|---------|----------|
| A. Four | B. Seven |
| C. Six | D. Five |

38. Which of the following is the universal solvent?

- | | |
|-------------------------|-----------------|
| A. Liquid NH_3 | B. Acetic acid. |
| C. Liquid SO_2 | D. Water |

39. Mass spectrometer separates ions on the basis of.....

- | | |
|-----------|-------------------------|
| A. Mass | B. Molecular weight |
| C. Charge | D. Mass to charge ratio |

40. Which of the following is an organophosphorus insecticide?

- | | |
|-------------|------------|
| A. Azodrin | B. Thiodan |
| C. Carbaryl | D. Baygon |

41. Laminar flow burner used in flame photometers is also known as.....

- | | |
|-----------------------------|----------------------|
| A. Turbulent burner | B. Premix burner |
| C. Total consumption burner | D. Nozzle mix burner |

42. Nucleus consists of and
- A. Protons and Neutrons B. Protons and electrons
C. Only neutrons D. None of the above
43. Chromatography is
- A. Physical method of separation
B. Analytical method of separation
C. Chemical method of separation
D. Both A and C
44. The study of soil science is called
- A. Ecology B. Phycology
C. Pedology D. Mycology
45. Chromosomes are most distinct during
- A. prophase B. metaphase
C. anaphase D. telophase
46. Simple collateral vascular bundles are found in
- A. Pleopeltis B. Selaginella
C. Equisetum D. Lycopodium
47. Cell wall is
- A. Semi-permeable B. non permeable
C. Impermeable D. Permeable
48. Based on distribution of yolk the egg of insect is
- A. Centrolecithal B. Megalecithal
C. Isolecithal D. Telolecithal

49. The ability of a pathogen to cause disease is
- A. Pathogenesis B. pathovar
C. Parasexualism D. Pathogenicity
50. Xylem and phloem patches lie side by side on the same radius is known as.....
- A. Bicollateral B. Collateral
C. Amphivasal D. Concentric
51. Which chemical is the fungicide?
- A. Blitox-50 B. Chloropicrin
C. Roger D. D.2, 4-D
52. Example of vinyl polymer is
- A. Dacron B. Nylon 6,6
C. Polystyrene D. Polycarbonate
53. Crystal structures are
- A. fcc B. bec
C. hcp D. all of these
54. Metals are lustrous because of
- A. free electrons B. free protons
C. free neutrons D. free photon
55. Which of the following process initiate cleavage in egg?
- A. Ovulation B. Spermiogenesis
C. Fertilization D. Parturition

56. The correct sequence of energy levels of a molecule in their increasing order is
- A. Electronic > Rotational > vibrational
 - B. Electronic > vibrational > rotational
 - C. Vibrational > electronic > rotational
 - D. Rotational > electronic > vibrational
57. The bacteria in intestinal lumen of ruminants hydrolyzeto yield free glucose .
- A. cellulose
 - B. amylopectin
 - C. amylase
 - D. lactose
58. Which is the fungus causes blast disease on rice?
- A. *Cercospora oryzae*
 - B. *Pyricularia oryzae*
 - C. *Alternaria oryzae*
 - D. *Fusarium oryzae*
59.is responsible for energy conservations reactions of aerobic respiration.
- A. E.R
 - B. Mitochondria
 - C. Golgi bodies
 - D. Chloroplast
60. Fish scales arein origin
- A. Epidermal and dermal
 - B. Dermal
 - C. Epidermal
 - D. Endodermal
61. Tobacco contains which of the following chemicals?
- A. Citral
 - B. Rotenone
 - C. Nicotine
 - D. Alpha-terpencol
62. The double helicle structure of the DNA is proposed by
- A. F.Sanger
 - B. H. Khorana
 - C. Watson & Crick
 - D. A. Fleming

63. 80s of eukaryotic ribosome dissociate into..... .
- A. 60s and 40s B. 50s and 30s
C. 60s and 20s D. 30s and 40s
64. The NMR spectroscopy is useful for the detection of
- A. Hydrogen bonding B. Aromaticity
C. Geometrical isomers D. all of above
65. Pure metallic solids are
- A. super conductors B. Semiconductors
C. good conductors D. Insulators
66. pH of the fertile soil is in between
- A. 1 to 3 B. 3 to 5
C. 11 to 13 D. 7 to 8
67. Hydration of alkenes give
- A. Esters B. Alcohols
C. Aldehydes D. Amides
68. Wind is important factor.
- A. Climatic B. Edaphic
C. Biotic D. Physiographic
69. The disadvantage of introduction of plants is
- A. entry of diseases
B. import of new crop variety
C. exchange of established crops
D. easy method to introduce new crops

77. Carbaryl is a type of pesticide,
- A. Organophosphorus B. Pyrethroid
C. Organochlorine D. Carbamate
78. In which region of the electromagnetic spectrum does absorption at 600 nm come?
- A. Visible B. Near-UV
C. Vacuum-UV D. Infrared
79. Ethephon is.....
- A. Insecticide B. Plant growth regulator
C. Fungicide D. Weedicide
80. The distance between the centers of the peaks of doublet is called
- A. Chemical shift B. Spin-spin coupling
C. Spin constant D. Coupling constant
81. pH of 0.1M HCl is
- A. 1 B. 10
C. 13 D. 6
82. The pH of fresh milk is.....
- A. 4.2 to 4.7 B. 7.5 to 8.0
C. 6.5 to 6.7 D. None of these
83. Haemoglobin contains which of the following element in its structure?
- A. Fe B. Na
C. Mg D. Zn

84. In DNA replication, Okazaki fragments are joined by
- A. Endonuclease B. Gyrase
C. Ligase D. Exonuclease
85. Sagitta belongs to the Phylum.....
- A. Bryzoa B. Branchiopoda
C. Pogonophora D. Chaetognatha
86. Hyperthyroidism in adult individual result in
- A. Myxedema B. Basedow's disease
C. Gull's disease D. Exophthalmic goiter
87. In Glycolysis Glucose converted into
- A. Pyruvic acid B. Acyl Co. A
C. Glycogen D. Lipid
88. Sexual reproduction conjugation occurs in
- A. Plasmodium B. Paramoecium
C. Amoeba D. Euglena
89. Saliva of Leech contains an anticoagulation agent.
- A. Haemoglobin B. Haemocyanin
C. Hirudin D. Haemozoin
90. Which is the causal organism of Tikka disease of ground nut?
- A. Cercospora arachidicola B. Cercospora personata
C. Both A and B D. Alternaria alternate
91. F1 particles are also called as
- A. Oxyosomes B. Peroxisomes
C. Dictyosomes D. None of the above

92. Which one is green manure

- A. Maize B. Rice
- C. Oat D. Sesbania

93. Which one is the largest particulate of the cytoplasm?

- A. Lysosomes
B. Golgi apparatus
C. Mitochondria
D. Endoplasmic reticulum

94. In single X-ray diffraction measurement, the crystal is mounted on.....

- A. X-ray source B. Diffraction Plate
C. Goniometer D. Fluorescent plate

95. Which of the following is not by-product of sugar cane?

- A. Acetone
B. Bagasse
C. Ethyl alcohol
D. Molasses

96. Stereo-isomers have same structure but different relative arrangement of in space.

- A. Ions
B. Cations
C. Atoms of ligands
D. Anions

97. Optically active complex must be

- A. Asymmetric
- B. Their mirror images are not super imposable on each other
- C. Chiral
- D. all of the above

98. In chick embryo development of brain from

- A. Mesoderm
B. Endoderm
C. Ectoderm
D. Mesoendoderm

99. India is second largest rank for production in 2024.

A. Wheat

B. Rice

C. Sygarcane

D. Soybean

100. Which of the following fish is not edible?

A. Catla

B. Silverfish

C. Ell

D. Rohu



- Rough -