

Seat No.

Total No. of Pages : 12

Ph.d Entrance Examination March - April, 2026
Agrochemicals And Pest Management
Subject Code : 58803

Day and Date : Wednesday, 07-Oct-2026

Total Marks : 100

Time : 01.00 pm to 03.00 pm

Instructions :

- 1) All questions are compulsory.
 - 2) Each question carries 2 marks.
 - 3) Answers should be marked in the given OMR answer sheet by darkening the appropriate option.
 - 4) Use black ball point pen only for marking the circle. Do not make any stray mark on the OMR answer sheet.
 - 5) Follow the instructions given on OMR Sheet.
 - 6) Rough work shall be done on the sheet provided at the end of question paper.
 - 7) Only non-programmable calculators are allowed.
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Section I

1. Research is.....
 - a) Searching again and again
 - b) Finding solution to any problem.
 - c) Working in a scientific way to search for truth of any problem
 - d) None of the above

2. What kind of tools are used for searching literature survey or research topic?
- i) Web of Science
 - ii) Scifinder
 - iii) Scopus
 - iv) Focus
 - a) i, ii and iii
 - b) i and ii
 - c) i and iv
 - d) All of the above
3. A research paper is a brief report of research work based on
- a) Primary data only
 - b) Secondary data only
 - c) Both Primary and Secondary data
 - d) None of the above
4. A hypothesis is.....
- a) A methodical evaluation of research evidence
 - b) A statement which serves as the basis for further investigation
 - c) A statement describing the aims of an investigation
 - d) All of the above
5. The first page of research reports is
- a) Appendix
 - b) Bibliography
 - c) Index
 - d) Title Page

6. Research word is derived from
- a) Latin
 - b) Indian
 - c) Greek
 - d) None of the above
7. The main purpose of research in education is to
- a) Help in individual's personal growth
 - b) Increase the social prestige of an individual
 - c) Increase individual's market value of jobs
 - d) Help to individual to become an eminent educationalist
8. The main purpose of a synopsis is
- a) An art
 - b) A science
 - c) Both a and b
 - d) None of the above
9. The Research methods are of two types and
- a) Qualitative and Quantitative
 - b) Perishable and nonperishable
 - c) Both a and b
 - d) None of these
10. is the "wrongful appropriation" and "stealing and publication" of another author's language, thoughts, ideas, or expressions" and the representation of them as one's own original work.
- a) opanisam
 - b) solarim
 - c) collegiums
 - d) plagiarism

11. Who invented pH scale?

- a) S. P. L. Sorenson
- b) B. Franklin
- c) Henry Moseley
- d) W. Rontgen

12. pH is ion concentration.

- a) $+\text{Log}_{10}[\text{H}]^+$
- b) $-\text{Log}_{10}[\text{H}]^+$
- c) $-\text{Log}_{10}[\text{OH}]^+$
- d) None of the above

13. The solution which is used to resist the change in pH called as

- a) Acidic solution
- b) Basic solution
- c) Buffer solution
- d) Neutral solution

14. A potentiometer is highly accurate instrument used to measure of cell.

- a) EMF
- b) Resistance
- c) Current
- d) none of the above

15. Potentiometer consists of as a Reference Electrode.

- a) Standard Calomel Electrode
- b) Glass Electrode
- c) Both a and b
- d) none of the above

16. Potentiometer works on

- a) Hookes law
- b) Nernst Equation
- c) Beer Lambert's Law
- d) none of the above

17. Which of the following is the main limitation of Bioassay?
- a) Availability of Micro-organisms
 - b) Sensitive organisms
 - c) Both a and b
 - d) None of the above
18. Insecticide concentration of 1 mg per liter is equal to ppm.
- a) 1000
 - b) 100
 - c) 10
 - d) 1
19. Exposure of organism to toxicant for long duration is called toxicity.
- a) Acute
 - b) Chronic
 - c) both a and b
 - d) None of the above
20. Which of the following is not a source of primary data?
- a) Government publications
 - b) Questionnaire
 - c) Investigation through local agencies
 - d) Personal
21. Table which contains ratios, sum, and percentage data is called
- a) Primary table
 - b) Derived table
 - c) Simple table
 - d) Specific table

22. The binomial distribution has the formula.

- a) $(p+q)^2$
c) $(p+q)^n$
- b) $(p+q)$
d) $(p \times q)$

23. A type II error occurs when:

- a) The null hypothesis is incorrectly accepted when it is false.
- b) The null hypothesis is incorrectly rejected when it is true.
- c) The sample mean differs from population mean
- d) The test is biased

24. The 't' test was worked out by

- a) J. D. Watson b) N. J. Chinoy
- c) W. S. Gossett d) R. A. Fisher

25. is the sum of deviations in the observed and expected frequencies divided by expected frequencies.

- a) Regression b) Student 't' test
- c) Correlation test d) Chi-square test

Section II

26. Which of the following formulation is dangerous to applicator?

- a) Dust b) Wettable powder
- c) Emulsifiable concentration d) None of these

27. Chloropyriphos is a
- a) Insecticide
 - b) Fungicide
 - c) Nematicide
 - d) Herbicide
28. Rotenone insecticide obtained from roots of
- a) Chrysanthemum cinerariaefolium
 - b) Azadirachta indica
 - c) Nicotiana tabaccum
 - d) Derris eliptica
29. Organophosphorous insecticides act as
- a) Systemic in nature
 - b) Acetyl choline esterase inhibitor
 - c) Both a and b
 - d) None of the above
30. Harmful usage of DDT has been elaborated in the book.
- a) Raschel Carson
 - b) Salient Spring
 - c) Both a and b
 - d) None of the above
31. Which of the following toxicity takes a small time to show symptoms after exposer?
- a) Acute
 - b) viral
 - c) Chronic
 - d) All of above

32. IR spectroscopy is spectroscopy.
- a) Vibrational
 - b) Rotational
 - c) Nuclear
 - d) Radio wave
33. Which human parts of the body absorb most pesticides at exposure?
- a) Head
 - b) Arms
 - c) Abdomen
 - d) Genital area
34. The well-known example of genetic engineering is
- a) Tomato
 - b) Rice
 - c) Cotton
 - d) Sugarcane
35. Clover leaf model of tRNA was proposed by
- a) Nirenberg & Mathai
 - b) Robert Holley
 - c) Okha
 - d) H. G. Khurana
36. Role of Single Stranded Binding' (SSB) protein in DNA replication is
- a) Separator Primer
 - b) Stabilizes Unwounded DNA
 - c) Prevents Supercoiling
 - d) None of above
37. The location of sugarcane breeding institute is
- a) Coimbatore, Tamil Nadu.
 - b) Hyderabad, Andhra Pradesh.
 - c) Kanpur
 - d) Utter Pradesh

38. Bitter gourd Yellow Mosaic Virus is transmitted by
- | | |
|-----------|-------------|
| a) Aphids | b) Whitefly |
| c) Fungi | d) Jassids |
39. Botrytis blight of Dahlia is
- | | |
|---------------|----------------|
| a) White mold | b) Black mold |
| c) Grey mold | d) Yellow mold |
40. Cercospora leaf spot of Bhindi caused by
- | |
|----------------------------|
| a) Cercospora malayensis |
| b) Cercospora abelmoschi |
| c) Cercospora arachidicola |
| d) Both a and b |
41. Native of Gossypium barbadense is
- | | |
|---------------------------|------------------|
| a) Central America Mexica | b) South America |
| c) India and Pakistan | d) South Africa |
42. Which of the following pest cause damage to the grains at milky stage?
- | | |
|--------------|-----------------|
| a) Mealy bug | b) Ear head bud |
| c) Black bug | d) Sting bug |
43. Sorghum shoot fly is pupating at
- | | |
|-----------------|----------------|
| a) soil | b) dead shoots |
| c) both a and b | d) leaf |

44. Brown plant hopper insect is only feeds on rice but no choice conditions it feeds on
 - a) Wheat
 - b) Maize
 - c) Sorghum
 - d) all of the above
45. Aphids sucks the sap from the tender leaves during the stage of the crop.
 - a) vegetative
 - b) reproductive
 - c) both a and b
 - d) none of the above
46. The pink borer is pests.
 - a) Monophagous
 - b) polyphagous
 - c) both a and b
 - d) None of the above
47. Which of the following is major host plant of *Spodoptera frugiperda*?
 - a) Wheat
 - b) Rice
 - c) Sugar cane
 - d) Maize
48. Which of the following is the natural enemy of mustered aphid?
 - a) Silverfish
 - b) Rhinoceros beetle
 - c) Ladybird beetle
 - d) all of the above

49. The tobacco cutworm feeds on

- a) Tobacco
- b) Cotton
- c) Soybean
- d) All of the above

50. Which of the following is not oil seed crop pest?

- a) Castor semilooper
- b) Mustered aphid
- c) Gram pod borer
- d) Till howk moth

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:: ROUGH WORK ::