

Avinashilingam Institute for Home Science and Higher Education for Women

Coimbatore- 641 043

Master's Degree Examination- November 2017

III Semester

Class: II PG

Max. Marks: 60

Major: Chemistry

Time: 3 Hours

12MCHC15 Research Methodology

Part- A

10 × ½ = 5

Answer the following

Choose the correct Answer:

1. The structure of organic compound can be drawn using
a) Q-chem b) NWchem c) Avogadro d) Chemdraw
2. Investigation of plant material for their terpenoidal content is a _____ type of research.
a) diagnostic b) applied c) experimental d) survey
3. _____ package is used for doing statistical analysis
a) ROOT b) TORCH c) SPSS d) PASS
4. In MLA style the authors name appears normally in _____
a) Full b) Capital letters c) author underlined d) short version of the name
5. A monograph is a _____ source of literature
a) primary b) secondary c) tertiary d) none
6. The expansion for DRDO _____
a) Direct Research and Development Organisation
b) Defence Research and Development Organisation
c) Diary Research and Development Organisation
d) Diagnostic Research and Development Organisation
7. Testing hypothesis is a _____
a) Inferential statistics b) Descriptive statistics
c) Data preparation d) Data analysis
8. Which of the following is not an essential element of report writing?
a) Research Methodology b) Reference c) Conclusion d) None of these
9. The most frequent occurred value of data or whose frequency is maximum is known as
a) Arithmetic mean b) Mode c) Median d) Harmonic mean
10. If mean of 6 numbers is 41 then sum of these numbers is
a) 250 b) 246 c) 134 d) 456

Part – B

5×4=20

Answer ALL questions

Each answer should not exceed 200 words or one page

11. (a) What do you mean by research? Explain its significance in modern times.
(OR)
(b) What are the criteria for good research?
12. (a) Discuss the types of research tools.
(OR)
(b) What are the qualities of a good researcher?
13. (a) Write short note on t-test and ANOVA.
(OR)
(b) Explain the measures of central tendency.
14. (a) Why tabulation is considered essential in a research study? Narrate the characteristics of a good table.
(OR)
(b) What is bibliography? Discuss the reasons for writing bibliography.
15. (a) Explain the Advantages of using computer technology in research.
(OR)
(b) Explain the importance of using technology in research.

Part – C

5×7=35

Answer ALL questions

Each answer should not exceed 600 words or three pages

16. (a) Give brief account on the different types of research.
(OR)
(b) What is meant by sampling? Discuss the principles and essentials of good sampling.
17. (a) Discuss the current status of research in chemistry in India.
(OR)
(b) Write a brief note on primary and secondary data.
18. (a) Bring out the computer packages available for data analysis.
(OR)
(b) Write a note on: Measures of dispersion and correlation techniques.
19. (a) Write down the steps involved in the chapterisation of research thesis.
(OR)
(b) Describe, in brief, the layout of a synopsis? How will it differ from the thesis?
20. (a) Explain the scope of research in higher education.
(OR)
(b) Discuss the various funding sources available for scientific research in India.
