F 8098

Reg. No................................

Name.....................................

INTEGRATED M.C.A. (I.M.C.A.) DEGREE EXAMINATION, MARCH 2025

Sixth Semester

IMCA 601—RESEARCH METHODOLOGY

(2019, 2018 and 2017 Admissions—Supplementary)

Time : Three Hours

Maximum Marks : 75

Part A

Answer any **ten** *questions.*
Each question carries 3 marks.

1. Write a note on problem definition.

2. What are the advantages of research problem ?

3. Show the steps for research process.

4. Define : "Geometric Mean".

5. What are the difference between quartile deviation and standard deviation ?

6. Point out the methods used for measures of variation.

7. How will you measurement of errors ? Explain.

8. What is T-test ?

9. What are the limitations of Impact factor ?

10. List out the advantages of h-index.

11. Infer the uses of Industrial design.

12. Define : "Copyrights".

$(10 \times 3 = 30)$

Turn over

Part B

*Answer **all** questions.*
Each question carries 9 marks.

13. (a) Illustrate the formulation of a research problem.

Or

(b) Explain the methods of data analysis used for research work.

14. (a) Find the quartile deviation of the following data :

Class	:	4-8	8-12	12-16	16-20
Frequency	:	6	10	18	30

Or

(b) Calculate the mean and standard deviation for the following distribution :

X	:	6	7	8	9	10	11	12
f	:	3	6	9	13	8	5	4

15. (a) Determine the ethics of research.

Or

(b) Analysis the purpose of chi-square test with simple example.

16. (a) Evaluate the guidelines for writing the abstract.

Or

(b) Summarize the importance of results and discussion of a manuscript.

17. (a) Demonstrate the basic latex commands and documentation.

Or

(b) Enumerate the different forms of IPR.

$(5 \times 9 = 45)$