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D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE – 1
SEMESTER EXAMINATIONS

JUNE – 2022

19CPCH4B

ELECTIVE - IV: SCIENTIFIC RESEARCH METHODOLOGY

Time: 3 Hrs

Max. Marks: 75

SECTION – A (5 X 6 = 30)

Answer ALL the questions.

1. (a) Discuss in detail about primary sources and secondary sources.

(Or)

- (b) Write short notes on science direct, web of science and scopus indexed journals.

2. (a) Explain in detail about the Soxhlet extraction process.

(Or)

- (b) Outline in brief about the distillation under reduced pressure.

3. (a) Discuss in detail about the Gaussian curve and Poisson curve.

(Or)

- (b) Describe in detail about the various types of error in chemical analysis.

4. (a) Discuss in detail about the 'Q' test and 'F' test using examples.

(Or)

- (b) Describe about significant figures and computation rules.

5. (a) Give a brief account on various kinds of abstracts involved in journals.

(Or)

- (b) Explain in detail about the various referencing styles employed in bibliography part in thesis work.

SECTION – B (3 X 15 = 45)

Answer any THREE of the following questions.

6. Explain in detail about the various steps involved in selection of research problem.

7. Describe in detail about the chemistry of working with water sensitive, corrosive, toxic, explosive and radioactive materials.

8. From the following data of wages of eight workers, calculate the mean, median, mode, variance and standard deviation.

4100, 4200, 4050, 4100, 4300, 4250, 4150, 4500

9. Discuss in detail about the method of least square analysis using examples.

10. Describe in detail about the use of quotations, footnotes, tables and figures in scientific writing process.

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