

M.Phil 1st Semester Examination, 2019

LIFE SCIENCE

(Research Methodology)

PAPER—LSC-111

Full Marks : 40

Time : 2 hours

The figures in the right-hand margin indicate marks

Candidates are required to give their answers in their own words as far as practicable

GROUP — A

1. Answer any *four* questions : 2 × 4
- (a) What is a pilot-study ? 2
- (b) Write the basic steps in formulating a research problem. 2
- (c) What are dependent and independent variables ? 1 + 1

- (d) What are copy-right laws ? Are all published works copy righted ? 1 + 1
- (e) What are the main ethical issues in the survey research method ? Briefly describe each. 1 + 1
- (f) Define two year journal impact factors. 2

GROUP – B

2. Answer any *four* questions : 4 × 4
- (a) What is a research hypothesis ? Define Convenience sampling. What do you understand by scaling techniques in research methodology ? 1 + 1 + 2
- (b) What is explanatory research ? What is the difference between deterministic and probabilistic concepts of causation ? 2 + 2
- (c) "Citation Indexes have scientific significance of published results" – What is the relationship between them ? How citation index is calculated ? 2 + 2

- (d) Write briefly about the data collection techniques used in research. Add a note on the limitations in data collection. $2 + 2$
- (e) What do you understand by the characteristics of a good research question for a Literature Review ? How do we structure a literature review ? $2 + 2$
- (f) What do you mean by single blind, double blind and triple blind study ? What is applied research ? $3 + 1$

GROUP – C

3. Answer any *two* questions : 8×2
- (a) What is the difference between inductive and deductive approaches to research ? State the importance of triangulation in research. What is a panel study ? $4 + 2 + 2$
- (b) What are the guidelines to publish quality paper without plagiarism ? Give examples of

four plagiarism detection software which are used for screening the text. What are the penalties for plagiarism in academic? 4 + 2 + 2

(c) Write the reliability and validity of data. State the importance of research hypothesis.

(2 + 2) + 4
