

**M.Sc. ENVIRONMENTAL SCIENCE**  
**THIRD SEMESTER**  
**RESEARCH METHODOLOGY & PROJECT FORMULATION**  
**MEV-301**

**Duration: 3 Hrs.**

**Marks: 70**

PART : A (OBJECTIVE) = 20  
PART : B (DESCRIPTIVE) = 50

**[ PART-B : Descriptive ]**

**Duration: 2 Hrs. 40 Mins.**

**Marks: 50**

**[Answer question no. One (1) & any four (4) from the rest]**

1. Identify a research problem of your choice and describe how you will start and conclude the research problem. (10)
2. Discuss the characteristics of a good research design. Mention the steps involved in a research design. (5+5=10)
3. Differentiate between methodology and methods. Discuss the application of different methods in research. (2+8=10)
4. Draw a comparative analysis of the following: (5+5=10)
  - a. Exploratory and explanatory research.
  - b. Pure and applied research.
5. What is sampling? Discuss its merits and demerits. (2+4+4=10)
6. What are the various types of sampling? Distinguish between random sampling and stratified multistage sampling. Write at least two merits and demerits of random sampling and stratified multistage sampling. (2+6+2=10)
7. Prepare a survey schedule to assess the expenditure to be incurred by a student studying in any universities of North East India staying in university hostel. What type of sampling and procedure you will follow? (6+2+2=10)
8. Write short notes on the following: (*any two*) (5×2=10)
  - a. Deductive approach
  - b. Ontology
  - c. Epistemology

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**[ PART-A : Objective ]**

**Choose the correct answer from the following :**

**1×20=20**

1. On framing objective of individual research, it basically tries to attain:
  - a. Control of concerned matters.
  - b. Understanding of concerned matters.
  - c. Human welfare with the help of concerned matters.
  - d. Prediction of concerned matters.
2. Which of the following are the general attributes of a scientific research?
  - a. Observation, verification, hypothesizing, theorizing.
  - b. Experiment, observation, verification, hypothesizing.
  - c. Observation, hypothesizing, experiment, theorizing.
  - d. Theorizing, observation, experiment, hypothesizing.
3. Objectivity in research implies:
  - a. Correct judgment of truth.
  - b. Findings consistent with reality.
  - c. Inter-research agreement.
  - d. Methodological sophistication.
4. Which of the following statement is wrong?
  - a. Researchers make sure that the questionnaire items match the research objectives.
  - b. Use natural and familiar language.
  - c. Researchers should use "leading" or "loaded" questions.
  - d. Researcher should determine whether an open-ended or a close-ended question is needed.
5. Which of the following is NOT a type of data editing?
 

a. Historical edits	b. Statistical edits
c. Copy edits	d. Consistency edits
6. Normally, a thorough research consists of four stages which have been appended below:
 

i. Preparing scheme of observation	ii. Interpreting the conclusion drawn
iii. Determining the objective	iv. Analyzing the observation obtain

 From the above stages, state which of the following order is correct?
  - a. iii, i, iv and ii
  - b. i, iv, iii and ii
  - c. i, ii, iii and iv
  - d. iii, iv, i and ii
7. A researcher who adopts statistical methodology for drawing a conclusion, should be primarily interested in knowing which of the following facts?
  - a. Whether data can be obtain or not.
  - b. Whether adequate methodologies are available or not.
  - c. Whether the analysis of data is possible or not.
  - d. All of the above.
8. A researcher wants to study the future of *University of Science and Technology Meghalaya* from present and passed out students, administrative officers and management authority. For the study which tool is most appropriate for researcher?
  - a. Questionnaire
  - b. Schedule
  - c. Interview
  - d. All of these
9. Area (Cluster) sampling techniques is used when:
  - a. Population is scattered and large size of the sample is to be drawn.
  - b. Population is heterogeneous.
  - c. Long survey is needed.
  - d. (a) and (c).
10. A researcher divides the population in PG, graduates and 10+2 students and using the random digit table, he selects some of them from each. This is technically called:
  - a. Stratified sampling
  - b. Stratified random sampling
  - c. Representative sampling
  - d. None of the above
11. KNOWLEDGE is coded as 256535475. How GENERAL can be coded?
  - a. 7549993
  - b. 7559913
  - c. 755591
  - d. 7555913
12. Find out the missing numbers in the series-15, 18, 24 .....45.
  - a. 27
  - b. 30
  - c. 33
  - d. 36
13. Formulation of hypothesis may not be necessary in:
  - a. Surveyed studies
  - b. Fact finding (historical) studies
  - c. Normative studies
  - d. Experimental studies



14. A good hypothesis should be:
  - a. Precise, specific and consistent with most known facts.
  - b. Formulated in such a way that it can be tested by the data.
  - c. Of limited scope and should have global significance.
  - d. All of these.
15. Generalized conclusion on the basis of a sample is technically known as:
  - a. Statistical inference of external validity of the research.
  - b. Data analysis and interpretation.
  - c. Parameter inference.
  - d. All of the above.
16. Photographs, artwork, original documents, autobiography, interviews, letters, artifacts and virtual fieldtrips constitute which type of source?
  - a. Primary source
  - b. Secondary source
  - c. Tertiary source
  - d. None of the above
17. Facts or figures from which conclusion can be drawn is:
  - a. Data
  - b. Information
  - c. Statistics
  - d. None of the above
18. The literature review of the related study is important while understanding a research because:
  - a. It avoids repetition or duplication.
  - b. It helps in understanding the gaps.
  - c. It helps the researcher not to draw illogical conclusions.
  - d. All the above.
19. Bibliography given in a research report:
  - a. Helps those interested in future research and studying the problem from another angle.
  - b. Makes the report authentic.
  - c. Shows the vast knowledge of the researcher.
  - d. None of the above.
20. ICSSR stands for:
  - a. Indian Council for Survey and Research.
  - b. Indian Council for Strategic Research.
  - c. Indian Council for Social Science Research.
  - d. Inter National Council for Social Science Research.

Course : .....

Semester : ..... Roll No : .....

Enrollment No : ..... Course code : .....

Course Title : .....

Session : ..... 2017-18 ..... Date : .....

**Instructions / Guidelines**

- The paper contains twenty (20) / ten (10) questions.
- Students shall tick (✓) the correct answer.
- No marks shall be given for overwrite / erasing.
- Students have to submit the Objective Part (Part-A) to the invigilator just after completion of the allotted time from the starting of examination.

Full Marks	Marks Obtained
20	

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Scrutinizer's Signature

Examiner's Signature

Invigilator's Signature