



**Answer the following questions (Total marks: 60 M)**

**1. State whether the following statements are true or false. Correct the false answer (17 M):**

- a. Exploratory research is searching explanations for events and phenomena.
- b. Research methodologies help us collect samples, data and find a solution to a problem. They accept only those explanations that can be verified by experiments.
- c. Researchers working on basic research have to make use of the outcomes of applied research and explore the utility of them.
- d. Most of the experimental research, case studies and inter-disciplinary research are essentially fundamental research.
- e. The results of scientific research very often force a change in the philosophical view of problems that extend far beyond the restricted domain of science itself.
- f. The important source of reference collection is the journal called Current Contents.
- g. If a student wishes to do research with fellowship then he can have freedom to choose a topic of the research.
- h. It is very difficult to find the wrong hypothesis in a theory that makes use of small amount of hypotheses.
- i. A good supervisor does not provide answers to the questions but gives appropriate directions to clarify the doubts.
- j. The failure and the wasted works are also part of the research career.
- k. The departmental seminar is usually 15 minutes duration.
- l. The oral representation is the last but a major part of the research study. It helps the researcher get feedback from other researchers and experts working in the same field.
- m. All the main text pages should be numbered with lower-case roman numbers.
- n. First, write the chapters that describe your actual research work. After this, prepare the conclusion and introduction parts.
- o. The undergraduate project allows the student autonomy to design, plan, execute, analyze and finally disseminate their research ideas.
- p. The final outcome of the project is often unknown and it is an opportunity for the student to sample research and to bring personal ideas and philosophies to the work.

**2. Choose the correct answer (14 M):**

- a. .... research investigates the why and how of decision-making. Its aim is to get the meaning, feeling and describe the situation.  
1) Applied            2) Theoretical            3) Qualitative            4) Revolutionary
- b. .... research is not concerned with solving any practical problems of immediate interest. However, it is original or basic in character.  
1) Applied            2) Normal            3) Fundamental            4) Revolutionary
- c. .... research is performed in accordance with a set of rules, concepts and procedures called a paradigm, which is well accepted by the scientists working in that field.  
1) Basic            2) Normal            3) Theoretical            4) Applied
- d. .... point out not only to the basic aspects and features of the topic concerned but also give a brief account of its present status.  
1) Letter sections    2) Discussions            3) Review articles            4) Rapid communications

- e. .... means the manner in which research is to be carried out.  
 1) Research design    2) Hypothesis                      3) Practical thinking            4) Mode of approach
- f. .... is a lengthy, original and substantial document. It should contain original contributions to the topic of research.  
 1) M.Sc. dissertation            2) Graduation project            3) Scientific article            4) Ph.D. dissertation
- g. .... is the most important and difficult part of the writing. One convenient approach is to edit the draft imagining that someone else has written it.  
 1) first draft            2) second draft            3) third draft            4) final version
- h. In ....., the author should make sure that the script clearly shows his originality and importance of the outcome of the study performed.  
 1) first draft            2) second draft            3) third draft            4) final version
- i. In the ....., the tables and charts can be typeset using computer and kept separately in order to avoid rewriting them.  
 1) first draft            2) second draft            3) third draft            4) final version
- j. The ..... should have positive information about the content of the paper and summary of the work reported in it.  
 1) abstract            2) introduction            3) conclusion            4) material and methods
- k. .... are supplementary contents that are not placed in the main report in order to keep the continuity of the discussion.  
 1) Abstracts            2) Conclusions            3) References            4) Appendices
- l. In the preliminary pages, ..... should contain a **very short statement of the problem, methodology and procedures** adapted in the work and **results** of the study in a very **condensed form**.  
 1) abstract            2) conclusion            3) introduction            4) summary
- m. .... projects review existing studies by collating data and conclusions to create a consensus data set and conclusion.  
 1) Laboratory            2) Meta-analysis            3) Intervention            4) Literature
- n. .... projects are a literature project with complex models applied to reach a conclusion.  
 1) Laboratory            2) Meta-analysis            3) Intervention            4) Literature

### 3. Fill in the spaces (15 M):

**power calculation, meta-analysis, scientific writing, explanatory, second draft, oral report, research methodology, plagiarism, intervention, introduction, reference, journal club, conclusion, appendix, research design, literature survey, hypothesis, research, cohort, graduation project.**

- a. The study of ..... provides us the necessary training in choosing methods, materials, scientific tools and training in techniques relevant for the problem chosen.
- b. .... is a collection of research publications, books and other documents related to the defined problem.
- c. .... should indicate the various approaches to be used in solving the research problem, sources and information related to the problem and, time frame and the cost budget.
- d. .... is copying data or findings from others' report without acknowledging the source.
- e. In ....., the researcher can present the results and interpretations that are not clearly understood by him and may request the experts in the audience to give their opinions and suggestions.
- f. .... are scientifically reasonable predictions. They are often stated in terms of if-then sentences in certain logical forms.

- g. .... is defined as the study of methods by which knowledge is gained. Its aim is to give the work plan of research.
- h. .... is an investigation of finding solutions to scientific and social problems through objective and systematic analysis.
- i. .... is intended to present clearly the purpose and outcome of a specific research investigation.
- j. .... should be numbered by capital alphabets. They can be placed at the end of report after.....
- k. .... projects are when the student recruits volunteers to part in a piece of research.
- l. .... is the **minimum number of volunteers** or patients needed to make the results statistically significant.
- m. A ..... is a group of people being investigated in the research.
- n. .... is when results from relevant paper are discussed in a group. It may be a great way to meet a busy supervisor, gain the knowledge of other people and gain relevant papers.

**4. Rearrange the different stages of the research in an appropriate order (5 M).**

- |   |                                  |   |
|---|----------------------------------|---|
| a. Assessment of current status of the topic chosen | d. Data analysis                 | i. Literature survey and reference collection |
| b. Actual investigation                             | e. Formulation of hypotheses     | j. Interpretation of result                   |
| c. Definition of a research problem                 | f. Research design               |   |
|   | g. Report                        |   |
|   | h. Selection of a research topic |   |

**5. Rearrange the different sections of the thesis in an appropriate order (6 M).**

- |                     |                         |               |
|---------------------|-------------------------|---------------|
| a. Acknowledgements | e. Material and methods | i. Title      |
| b. Contents         | f. Appendices           | j. References |
| c. Authorship       | g. Introduction         | k. Dedication |
| d. Conclusion       | h. Results              | l. Abstract   |

**6. Match each item in the left column with its corresponding value(s) in the right column (5 M).**

a. Creation of new methods and protocols	1. References
b. Read other people's materials and methods	2. Appendices
c. Note any change made to existing methods	3. Introduction
d. Compare your results with other results	4. Material and methods
e. Analyze results	5. Results
f. Collate review and specific papers to see what other people have done	6. Future work
g. Plan your new methods and methods	7. Conclusion
h. Do your standards and controls work before continuing work	8. Acknowledgment
i. Mistakes or improvements to the experiments which could have been made if more time	9. Index
j. Initial results are produced	10. Dedication

*With our best wishes*  
*Prof. Dr. Ahmed Alwan*  
*Dr. Mohammed Elmogy*