

Course No: ENGI 3215
Course Title: Scientific Research
Methods and Applied Statistics
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Time: 60 Minutes
Using Calculator (No)

University of Palestine



Midterm Exam
First Semester
2017/2018
Total Grade: 30

Instructor Name: Dr. Osama Dawoud
Dr. Ali Tayeh

Mr. Ahmed Badr

Student No.: _____
Student Name: _____
College Name: Engineering
Dep. / Specialist: Engineering
Using Dictionary (No)

First Question	1	2	3	4	5	6	7	8	9
Answer									

Second Question	1	2	3	4	5	6
Answer						

Please Answer All Questions

FIRST QUESTION

9 Marks

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1. The research that produces recommendations or solution to some problem faced by a specific group of people:
 - A. Basic research
 - B. Applied research
 - C. Experimental research
 - D. All of the above
 2. "Researching mechanisms that enhance resistance of artificial limbs to the mechanical wear". Which of the following would you select as a research question?
 - A. How to mitigate ...
 - B. What is the effect ...
 - C. Why the artificial limbs
 3. Which of the following is an ethical practice?
 - A. To research nuclear energy for peaceful use
 - B. To use the data of a social survey for personal interests
 - C. To study the causes of illegal actions in the society
 - D. To investigate the contamination of environment cause by industry
 4. Formative Evaluation Research:
 - A. Summarizes and assesses the main benefits of a policy to judge its effectiveness or applicability
 - B. Aims at making improvement to a specific program
 - C. Is limited to the experimental research
 - D. None of the above
 5. The research is classified as a "experimental" or "analytical" according to:
 - A. Purpose
 - B. Field (or theme)
 - C. Approach
 - D. None of the above
 6. "The behavior of polyethylene that is reinforced by carbon nanotubes under large strains". This statement describes:
 - A. A discipline of science
 - B. A subject area
 - C. A research topic
 - D. A research question
 7. A researcher believes that he successfully developed a drug for curing Ebola. Due to the limited budget, his proposed methodology involves trying the drug immediately with a group of volunteered patients. What is the problem with this research?
 - A. Unfeasible
 - B. Unethical
 - C. Uninteresting
 - D. Lack of experience

8. When the results of the research are discussed,
- A. Remarkable features are highlighted
 - B. They have to be discussed in the context of previous studies
 - C. Potential sources of error have to be discussed
 - D. All of the above
 - E. None of the above
9. When testing a new technique on the field scale while fixing all the parameters while controlling the ones that are studied, this is called:
- A. Lab experiment
 - B. Field experiment
 - C. Case study
 - D. Survey

SECOND QUESTION

6 Marks

Check whether the following statements are true (✓) or False (✗):

1. The measurable data is an essential requirement for scientific research.
2. When conducting a new research literature review, only professional researchers can skip literature review.
3. The conclusions of the research should be directly related to the research objectives.
4. The quality of the research is only judged by the significance of the topic it tackles.
5. When you choose the topic of your research, it is recommended that you select a new topic even if it is not of your expertise.
6. The questions that are raised during lectures could be a good source as research topics.

THIRD QUESTION

(15 points)

A. List the main standard components of any scientific research.

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B. Phrase any research question that fulfills the standards for good research questions as you learned them.

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C. Briefly list the considerations that should be accounted for when formulating research question.

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End of Questions
Good luck