

Course No: BIPH4029  
Course Title: Scientific Research  
Methods & Applied Statistics  
Date: 18 /4/2018  
No. of Questions: (3)  
Time: 1hour  
Using Calculator (No)

University of Palestine  
  
Midterm Exam  
Second Term 2017/2018  
Total Grade:30

Instructor Name: Dr. Amjad El-Shanti  
Student No.: \_\_\_\_\_  
Student Name: \_\_\_\_\_  
College Name: Faculty of Dentist and Oral Surgery  
Dep. / Specialist: \_\_\_\_\_  
Using Dictionary (No)

(10 Marks)

**Question One:** "Antimicrobial resistance is an important concern for the public health authorities at global level. However, in developing countries like Palestine, recent hospital and some community based data showed increase in burden of antimicrobial resistance. challenges associated with controlling antibiotic resistance, particularly in Gaza, are many and multifaceted. On one hand, antibiotics are necessary in many life-threatening cases. On the other hand, overuse of antibiotics can be disastrous in the long run. Hence, judicious use of antibiotics is required, but acceptable strategies to achieve this goal and to address the challenges must be devised and communicated. The public's lack of knowledge about the (in)appropriate use of antibiotics. Another major challenge is the absence of a good monitoring or surveillance system for prescriptions. Doctors prescribing antibiotics to any patients with a fever, taking it as a sign of bacterial infection. Stressing on limiting the use of antibiotics through improved water, sanitation and immunization. surveillance alone is not enough. The key is preventing intake of antibiotics in cases where they are not needed. With less antibiotic use, antibiotic effectiveness is maintained for a longer period.

Two basic approaches are available to slow the spread of antibiotic resistance – better targeting of antibiotics to needy person and routine vaccination against pneumonia and H. influenza B virus. Several measures can be implemented in hospitals to reduce the spread of infections, such as hand washing, isolation rooms, and use of gloves, gowns, etc. in-service training for physicians to improve prescribing behavior. Hospital infection control practices in the country also vary widely and fail to prevent the spread of bacterial disease within some facilities. This leads to increased antibiotic use, which increases the selection pressure for resistance on bacteria.."

Gaza has one of the highest rates of antibiotic resistance in the world and recent report showed the inappropriate and irrational use of antimicrobial agents against these diseases, which led to increase in development of antimicrobial resistance.

If you decide to conduct a study in Pharmacy Department in Shifa Hospital in Ministry of Health to determine the most factors contribute in overuse of Antibiotics among Gaza City population during short period not more than six months, please prepare a research proposal about this topic showing the following elements:

- A) Title of the study.
- B) Introduction (definition, magnitude, justification, importance).
- C) General and at least Specific objectives of the study.
- D) Population, sample of the study and sampling method.
- E) Study design (explaining the cause of selecting this type of design for your study).
- F) Setting and period of the study (showing time schedule for the activities of study) .
- G) The dependent and independent variables.

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**Question Two: Answer the following questions** (10 Marks)

- A) Justify the following sentences:
- a- Formulation of your study objectives in any study is essential for implementing the study .
  - b- Literature review is an important step proceeding the research work and is essential in all steps.
- B) What is the difference between Conceptual definition of variable and Operational definition of variable ? (Give an Example ).

**Question Three : Select the correct answer from the different alternatives for the following statements:** (10 Marks)

1. A predictive statement about relationships between independent and dependent variables is:
  - a) Power of study
  - b) Significance level
  - c) Study hypothesis
  - d) Study questions
  - e) None of the above
2. Which of the following is the correct order for the epidemiological studies according to representing the strength association between the variables (from the weakest to the strongest):
  - a) Case series study, Cohort study, Case control study, Clinical trial study.
  - b) Clinical trial study, Cohort study, Case control study, Case series study.
  - c) Cohort study, Case series study , Case control study, Clinical trial study.
  - d) Case series study, Case control study, Cohort study, Clinical trial study.
  - e) Case control study, Cohort study, Clinical trial study, Case series study.
3. A disease has low incidence rate with high case fatality rate and unknown therapy methods in specific community. This disease in the community will be:
  - a) Of high prevalence
  - b) Of low prevalence
  - c) Fluctuation in prevalence
  - d) Rare disease
  - e) Common disease
4. The data of research is \_\_\_\_\_
  - a) Qualitative only
  - b) Quantitative only
  - c) Both (a) and (b)
  - d) Neither (a) nor (b)
  - e) None of above

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**5. The longitudinal approach of research deals with \_\_\_\_\_.**

- a) Horizontal researches
- b) Long-term researches
- c) Short-term researches
- d) All of the above
- e) None of above

**6. Sampling is advantageous as it \_\_\_\_\_**

- a) Helps in capital-saving
- b) Saves time
- c) Increases accuracy
- d) Both (a) and (b)
- e) None of above

**7. Regionville is a community of 100,000 persons. During 1985 there were 1,000 deaths from all causes. All cases of tuberculosis have been found and they total 300 where 200 males and 100 females. During 1985, there were 60 deaths from tuberculosis, 50 of them males. The crude mortality rate for Regionville is**

- a) 300 per 100,000
- b) 60 per 1,000
- c) 0 per 1,000
- d) 100 per 1,000
- e) 200 per 1,000

**8. Hypothesis relates \_\_\_\_\_**

- a) Constant to variables
- b) Constant to constant
- c) Variables to constant
- d) Variables to variables
- e) None of above

**9. In order, the four basic sections of a quantitative research report are:**

- a) literature review, results, method, discussion.
- b) literature review, method, results, discussion.
- c) discussion, literature review, method, results.
- d) literature review, discussion, method, results.
- e) method, literature review, results, discussion.

**10. Prevalence refers to:**

- a) The number of existing cases of a disease or health condition, or deaths in a population at some designated time
- b) The occurrence of new disease or mortality within a defined period of observation in a specific population
- c) A summary rate based on the actual number of events in a population over a given time period
- d) It shows the additional number of cases expected per m exposures.
- e) The number of curable cases of a disease in a population at some designated time.

**Good Luck**