



7-6-2016  
Fourth Year students (Total marks 40)  
Time allowed: 2hour

Fayoum University  
Faculty of Nursing

### Statistics

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a. Answer the following Questions:

1. Give short account on

(Total 8 marks)

- Factors affecting sample size
- Case control study

2. Define:

(Total 6 marks)

- Clinical trial.
- Relative Risk.
- Sensitivity of screening test.

3. Enumerate:

(Total 6 marks)

- Data collection tools.
- Types of variables with examples.

4. Calculate:

(Total 6 marks)

The body's weights of 8 children of 1 year old are 10, 9, 8, 10, 12, 7, 13, and 11 calculate the following

1. Mean
2. Mode
3. Median
4. Range
5. Midrange
6. Standard deviation

**b. Put (T) in case of true and (F) in case of false (6 marks).**

1. Clinical trial is analytical observational study ( )
2. Large sample size is needed with more variable studied ( )
3. Open ended questions in questionnaire take short time and are easy analyzed ( )
4. Specific objectives of research specify what will be done in the study , where, when. ( )
5. Bar chart and histogram are graphs used to present qualitative data ( )
6. Losses to follow up are the main side effects of cohort study ( )
7. Median is one of central tendency measures affected by extreme values ( )
8. Odds ratio can be calculated from case control study ( )

**c. MCO (write the question number and choose one answer only) (10 marks).**

1. The strongest analytical observational study type in concluding case- effect relationship

- a- Cross-sectional study
- b- Cohort study
- c- Case-control study
- d- Clinical trail

2. The following are probability sample techniques

- a. cluster random sample
- b. convenience sample
- c. purposive sample
- d. Quota sample

3. The following are measures of central tendency

- A. Median and percentiles and mean deviation
- b. Mean, median and range
- c. Mean , Median and midrange
- d. Mode, standard deviation and range

**Fill in space**

A-cross-sectional	B- Randomized controlled trial	C. Case- control	D. Cohort study
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1- .....provides the strongest evidence within the different types of epidemiological study designs

2- .....study can be both descriptive and analytic

3- .....best used in studying rare diseases

4- Incidence rate can be calculated from.....study