



Question 1. Choose one best answer

(1 mark each total 20)

1. Age, and height are examples of
 - a. Discrete variable
 - b. Ordinal variable
 - c. Binary variable
 - d. Continuous variable
2. Social class and educational level are examples of
 - a. Discrete variable
 - b. Ordinal variable
 - c. Binary variable
 - d. Continuous variable
3. If serum cholesterol in apparently healthy individuals is normally distributed with mean =180 mg and standard deviation = 4 mg, the probability to find an individual from that population whose serum cholesterol is above 176 mg% is equal to
 - a. 84%
 - b. 74%
 - c. 94%
 - d. 34%
4. Height of adult men in a population is normally distributed with a mean of 165 cm. and a standard deviation =9 cm. The military Air Forces' regulations not to enroll men shorter than 174 cm. what is the proportion of men that will be eligible to join Air Forces?
 - a. 0.16%
 - b. 0.016%
 - c. 1.60%
 - d. 16%

5. Systolic blood pressure is normally distributed in a population with a mean of 120 mmHg and standard deviation of 5 mmHg. The middle 95% of that population have a systolic blood pressure between
- 110 mmHg and 120 mmHg
 - 110 mmHg and 130 mmHg
 - 110 mmHg and 140 mmHg
 - 120 mmHg and 140 mmHg
6. What is the type of scale of measurement of a Likert (strongly agree, agree, neutral, disagree and strongly disagree)?
- Multinomial
 - Ordinal
 - Interval
 - Ratio
7. Which of the following is NOT a measure of scatter
- Inter-quartile range
 - Variance
 - Coefficient of variation
 - Midian
8. The Mean age of the following group of diabetics (24 23 25 35 34 45 67 14 26 12) is :
- 30.5
 - 25.5
 - 45
 - 26.8
9. The Modal age of the following group of diabetics (24 23 25 35 34 45 67 14 26 12) is
- 25.5
 - 45
 - 26.8
 - The data has no mode

10. The median age of the following group of diabetics (24 23 25 35 34 45 67 14 26 12) is

- a. 30.5
- b. 25.5
- c. 45
- d. 26.8

11. The exam test scores of 15 students were recorded in ascending order as follows:

4, 7, 7, 9, 10, 11, 13, 15, 15, 15, 17, 19, 19, 20. The mode is:

- a. 7
- b. 15
- c. 19
- d. The data has no mode

12. The median and inter-quartile range are represented graphically by

- a. Dot Plot
- b. Bar chart
- c. Box and whisker chart
- d. None of the above

13. The area under the normal distribution curve and between the mean and mean + one standard deviation on one side is:

- a. 14%
- b. 34%
- c. 68%
- d. 95%

14. If systolic blood pressure (SBP) is normally distributed with mean = 120 mmHg and standard deviation = 5 mmHg, the probability to find an individual from that population whose SBP = 135 mmHg or higher equals:

- a. 0.03%
- b. 0.05%
- c. 0.02%
- d. 0.15%

15. Type I error or level of α means:

- a. Probability of rejecting a false Null Hypothesis
- b. Probability of rejecting a correct Null Hypothesis
- c. Probability of not rejecting a correct Null Hypothesis
- d. Probability of not rejecting a false Null Hypothesis

16. Which one of the following values are typically representing the area of rejecting the null hypothesis in case of significance?

- a. 2.5% in the upper tail only
- b. 2.5% either in the upper or lower tails
- c. 5% either in the upper or the lower tail
- d. 5% in the upper tail only

17. A histogram can be used to graphically represent

- a. Discrete variable
- b. Ordinal variable
- c. Binary variable
- d. Continuous variable

18. A Chi-squared is used to assess

- a. The degree of correlation between two variables
- b. The degree of association between two continuous variables
- c. The role of chance as a cause of the association between two categorical variables
- d. The role of chance as a cause of the association between two continuous variable

19. The researcher want to compare birth weight of infants of smoking to nonsmokers mothers.

What is the applicable significance test?

- a. McNemar's test
- b. Two independent samples t-test
- c. Paired t-test
- d. ANOVA

20. The best graph to represent series of measurements during a period of time is:

- a. Line graph
 - b. Bar graph
 - c. Pie chart
 - d. Scatter blot
-

Question 2:**(10 marks)**

In a sample of 35 persons, the mean blood hemoglobin was 9.6 ± 5.7 Kg. Another sample of 40 persons have mean hemoglobin of 8.2 ± 3.2 kg. Do these two samples differ in their mean blood hemoglobin?

Questions 3:**(15 marks)**

A vaccine trial include 450 persons. The researcher divided them in two groups. The first included 150 persons received the vaccinated. After three years, 10 persons suffered from the disease. The rest of the sample did not have the vaccine and at end of follow up 45 suffered the disease. Can we conclude that the vaccine is protective?

Question 4:**(15 marks)**

The following are the blood hemoglobin. of a group of children before and three months of a nutritional program:

Before	10	9	11	12	12	10.5	11.5	9.5	10.5
After	11	11	12	12	13	11.5	12.5	11.5	12.5

Test whether this program affects significantly the hemoglobin of children.

With my best wishes to you

Environmental Health for the Second Semester of public Health Master Degree March 2021

Tanta University

Faculty of Medicine

Public Health Dept.

March 2021

All questions should be answered

Number of Questions: 4

Time Allowed: 3 Hours

Total: 45 Marks

Number of page: one



1- Give short account on:

- a) Health hazards due to defects of potable water quality. **(10 marks)**
- b) Discuss air pollution, its effect and control measures. **(10 marks)**

2- Discuss the health hazards of vibration and its preventive and control measures. (10 marks)

3- Discuss steps of risk management process. (15 marks)

4- Define disaster; types & impact on health care system. (10 marks)

Tanta University,
Faculty of medicine,
Public health department

Master degree of Occupational medicine, Socio-behavioral Medicine
Faculty of Medicine
Public Health Dept.
March 2021

Number of Questions: 5
Time Allowed: 3 Hours
Total: 45 Marks



Answer the following questions:

- Q1: Discuss briefly the individual and family behavior as risky or protective factor for tuberculosis (TB)? (5)**
- Q2: Discuss briefly the contents of health education message for prevention and control of obesity? (5)**
- Q3: Discuss the health belief model theory for change of individual health related behavior and its application for prevention of violence? (15)**
- Q4: Discuss the concepts and uses of the following theories for behavior change: (15)**
- a-Self Determination Theory (SDT)
 - b-Social cognitive theory (SCT)
 - c- Transtheoretical Model (TTM)
- Q5: Discuss the requirements of successful counseling session? (5)**

Good Luck
