**EXERCISES**

**STAT – 109 BIOSTATISTICS**

**Q1: For each of the following variables indicate whether it is quantitative or qualitative variable:**

(a)The blood type of some patient in the hospital.( **qualitative nominal )**

 (b) Blood pressure level of a patient. ( **qualitative ordinal )**

(c) Weights of babies born in a hospital during a year. (**Quantitative continues)**

(d) Gender of babies born in a hospital during a year. ( **qualitative nominal)**

(e) The distance between the hospital to the house . (**Quantitative continues)**

(f) Under-arm temperature of day-old infants born in a hospital. (**Quantitative continues)**

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**Q2: For each of the following situations, answer questions (a) through (d):**

(a) What is the population?

(b) What is the sample in the study?

(c) What is the variable of interest?

(d) What is the type of the variable?

**Situation A:** A study of 300 households in a small southern town revealed that if she has school-age child present.

1. All households in a small southern town
2. 300 households in a small southern town

1. Does households had school age child present

1. Variable is qualitative

**Situation B:** A study of 250 patients admitted to a hospital during the past year revealed that, Distance the patient live away from the hospital .

1. All patients admitted to a hospital during the past year
2. 250 patients admitted to a hospital during the past year
3. Distance the patient live away from the hospital

1. Variable is Quantitative continuous

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**Q3:Choose the right answer:**

**1-The variable is a**

a. subset of the population.

b. parameter of the population.

c. relative frequency.

**d. characteristic** of the population to be measured.

e. class interval.

**2-Which of the following is an example of discrete variable**

**a. the number of** students taking statistics in this term at KSU.

b. the time to exercise daily.

c. whether or not someone has a disease.

 d. height of certain buildings.

 e. Level of education.

**3-Which of the following is not an example of discrete variable**

a. the number of students at the class of statistics.

b. the number of times a child cry in a certain street.

**c. the time to run** a certain distance.

d. the number of buildings in a certain street.

e. number of educated persons in a family.

**4-Which of the following is an example of qualitative variable**

a. the blood pressure.

b. the number of times a child brush his/her teeth.

**c. whether or not** someone fail in an exam.

d. Weight of babies at birth.

 e. the time to run a certain distance.

**5-The continuous variable is a**

a. variable with a specific number of values.

b. variable which can’t be measured.

**c. variable takes on** values within intervals.

d. variable with no mode.

e. qualitative variable.

**6- which of the following is an example of continuous variable**

a. The number of visitors of the clinic yesterday.

**b. The time to** finish the exam.

c. The number of patients suffering from certain disease.

d. Whether or not the answer is true.

**7- The discrete variable is**

a-qualitative variable.

b-variable takes on values within interval.

**c-variable with a specific** number of values.

d-variable with no mode.

**8-Which of the following is an example of nominal variable :**

a-age of visitors of a clinic.

b-The time to finish the exam.

**c-Whether or not a person** is infected by influenza.

d-Weight for a sample of girls .

**9-The nominal variable is a**

a-A variable with a specific number of values

**b-Qualitative variable** that can’t be ordered.

c-variable takes on values within interval.

d-Quantitative variable .

**10-Which of the following is an example of nominal variable :**

a-The number of persons who are injured in accident.

b-The time to finish the exam.

**c-Whether or not the** medicine is effective.

d-Socio-economic level.

**11-The ordinal variable is :**

a-variable with a specific number of values.

b-variable takes on values within interval.

**c-Qualitative variable** that can be ordered.

d-Variable that has more than mode.