Question Paper

MANIPAL ACADEMY OF HIGHER EDUCATION

FIRST SEMESTER MASTER OF PUBLIC HEALTH DEGREE EXAMINATION - FEBRUARY 2020
SUBJECT: INTRODUCTORY BIOSTATISTICS FOR PUBLIC HEALTH (MPH 653)
(REPEATERS)

Marks: 50   **Duration: 120 mins.**

Answer all the questions.

1A)	What are the types of data measurement scale? Explain with examples.	(3)
1B)	Lifetime (in hours) of 12 flashlight batteries is an example of what type of data? A) Discrete B) Continuous C) Ordinal D) Nominal	(1)
1C)	The number of doughnuts sold each day by a doughnuts store is an example of what type of data? A) Discrete B) Continuous C) Ordinal D) Nominal	(1)
2)	Find the median of the following frequency table:	(5)

Age	Frequency
18	11
19	5
20	3
21	9
22	2
Total	30

3)	Find the mean deviation about the mean for the following data: 6, 7, 10, 12, 13, 4, 8, 12	(5)
4)	Explain briefly for measure of dispersion. Also, state the merits and demerits.	(5)
5)	**Explain briefly:** (a) Prevalence rate (b) Incidence rate (c) Infant mortality rate (IMR) (d) Fertility rate (e) Annual crude death rate	(5)
6)	Explain briefly: (a) Mutually exclusive events (b) Independence (c) Joint probability (d) The addition rule (e) The multiplication rule	(5)
7)	The probability is 0.6 that a patient selected at random from the current residents of a certain hospital will be a male. The probability that the patient will be a male who is in for surgery is 0.2. A patient randomly selected from current residents is found to be a male; what is the probability that the patient is in the hospital for surgery?	(5)
8)	Explain why each of the following distributions is or is not a probability distribution:	(5)

x	P(X=x)
0	0.15
1	0.25
2	0.10
3	0.25
4	0.30

X	P(X=x)
0	0.15
1	- 0.20
2	0.30
3	0.20
4	0.15

9)   Describe the normal distribution. State its properties and application. Describe the standard normal   (10)
distribution and tell how it is used in statistics.

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