SEAT No._____

[27] **SARDAR PATEL UNIVERSITY**
T.Y.B.Sc.(FIFTH SEMESTER) EXAMINATION
2017
Friday, 17ᵗʰ November
10.00 am to 1.00 pm
US05CENV06 Population Dynamics and Biostatistics
Total Marks -70

(10)

Q.1. Select the correct answer and write it in the answer sheet

1. Demographic transition is an important factor in _____ growth
(a) Industrial   (b) Commercial   (c) Population   (d) Economic

2. Ethics is derived from Greek word _____
(a) Ethos   (b) Etuis   (c) Evokes   (d) Educes

3. Kidneys are mainly affected by _____ agents
(a) Hepatotoxic   (b) Nephrotoxic   (c) Neurotoxic   (d) Cytotoxic

4. Hyperkeratosis is a pathological effect of _____ heavy metal
(a) Barium   (b) Copper   (c) Lead   (d) Arsenic

5. Firstly, *Vibrio cholerae* was isolated by _____
(a) RPMT   (b) GeorgesI.   (c) I. Widal   (d) Robert Koch

6. Earth provides _____ hector bio-productive space per world inhabitant
(a) 4.3   (b) 1.2   (c) 1.9   (d) 5.5

7. Every gallon of gasoline burned puts an average of _____ pounds CO_2 in atmosphere
(a) 26   (b) 36   (c) 46   (d) 56

8. Frequency distribution table can be compared with _____ standard distributions
(a) Normal   (b) Binominal   (c) Both of above   (d) None of above

9. Map diagram shows _____ distribution of various frequencies
(a) Geographical   (b)Comparative   (c) Imaginary   (d)Tabular

10. Quota sampling has mainly _____ types
(a) two   (b) three   (c) four   (d) five

(P. T. O.)

Q.2. Answer the following in brief (Any Ten) (20)

1. What is the need of Environmental Ethics? Explain.
2. Give abrief account on environmental issue: "Diminishing of biological capital"
3. Discuss short term factors which affect the population
4. Write short note on effects of Mercury on public health
5. Give a note on Polio disease
6. Define the terms: (i) Health   (ii) Disease
7. Discuss sustainable ways to control air pollution
8. Write a note on biophysical measurements for sustainable development
9. Give a brief account on conservation of energy in home and yard sustainably
10. Write in short about arithmetic mean
11. Discuss cluster sampling
12. What is sample and sampling?

Q.3 (a) Write in brief about exponential growth of population study (05)
   (b) Discuss: Howguiding principles helps to follow environmental ethics? (05)

OR

Q.3 (a) Give a note on basic directives of environmental ethics (05)
   (b) Writea note onLogistic growth curve for population studies (05)

Q.4 (a) Discuss effects of severe environment (05)
   (b) Give a note on HIV with appropriate diagram (05)

OR

Q.4 (a) Write a note on types of stress (05)
   (b) Discuss the effects of disease causing pathogens in water (05)

Q.5 (a) Discuss imperative for sustainable development (06)
   (b) How can one have improvement of vehicle fuel efficiency sustainably? (04)

OR

Q.5 (a) Write a note on control of noise pollution (06)
   (b) Give a brief note on environmental degradation and conservation issues (04)

Q.6 Give a detailed note on methods to present statistical data (10)

OR

Q.6 Calculate mean, median, mode and standard deviation of given data (10)

Class	10-20	20-30	30-40	40-50	50-60	60-70	70-80	80-90
Frequenc	32	29	21	23	46	10	35	41

————X————