

SEAT No. _____

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SARDAR PATEL UNIVERSITY
T. Y. B. Sc. (SIXTH SEMESTER) EXAMINATION

2019

WEDNESDAY, 27th MARCH

Time: 10.00 a.m. to 01.00 p.m.

US06CENV02 (ENVIRONMENTAL SCIENCE)
(ENVIRONMENTAL TOXICOLOGY)

Note: 1. Answers of all the questions (including multiple choice questions) should be written in the provided answer book only

2. Figures to the right indicate the full marks of sub question

3. Draw neat and labelled diagrams wherever necessary

Maximum Marks: 70
(10)

Q. 1. Multiple choice questions

1. Once in a matrix, the contaminant can enter another matrix by _____ transport.
a. Interphase b. Intraphase c. Ultraphase d. Transphase
2. Contaminant transport in air occurs primarily by _____ processes.
a. Diffusional b. Decompositional c. Evaporational d. All of these
3. _____ is the example of disease caused by chronic effect.
a. Asbestosis b. Arthritis c. Asthma d. All of these
4. Full form of TWA is _____.
a. Total Weight Area b. Tough Weighing Average
c. Time Weighted Average d. Total Worldwide Alliance
5. Industrial hygiene works through _____.
a. Anticipation b. Recognition c. Evaluation d. All of these
6. The elimination half-life for inorganic Lead in blood is _____.
a. 10 days b. 30 days c. 27 days d. None of these
7. Inorganic Arsenicals are known _____ in humans.
a. Mutagens b. Carcinogens c. Teratogens d. Inducers
8. _____ form of Chromium is more toxic.
a. Divalent b. Trivalent c. Pentavalent d. Hexavalent
9. Microbial toxins produced by _____ lead to contamination of food during packaging.
a. *Staphylococcus* b. *Salmonella* c. *Shigella* d. All of these
10. _____ is the state of being affected by one or more psychoactive drugs.
a. Inhibition b. Intoxication c. Initiation d. Irritation

(P.T.O.)

(1)

(20)

Q. 2. Answer the following questions in short (Any Ten)

1. Enlist common environmental toxicants
2. What is Accumulation *sensu lato* and *sensu stricto*?
3. What is chemodynamics?
4. Explain the term Hygiene
5. What is the purpose of food safety inspections?
6. List any five food borne illnesses.
7. Write the biochemical effects of Chromium.
8. Write the toxic effects of Mercury.
9. Write the sources of Lead causing pollution
10. What are food additives?
11. Write about the signs of alcohol intoxication
12. Mention deleterious effects of any two known contaminants of food

Q. 3. (a) Describe transport of chemical in soil environment (05)
(b) Describe the effects of toxicants at population level (05)

OR

Q. 3. Write an essay on: Biological monitoring of toxic substance (10)

Q. 4. (a) Write a detailed note on food preservation (07)
(b) Discuss physical hazards and control (03)

OR

Q. 4. (a) Write a note on food poisoning and preventive measures (07)
(b) Explain hierarchy of control of industrial hazards (03)

Q. 5. Write about toxicokinetics of Arsenic and add a note on its toxic effects on humans (10)

OR

Q. 5. (a) Illustrate the Preventive measures of Cadmium toxicity (06)
(b) Write a note on Minamata disease (04)

Q. 6. Write a note on (06)
(a) Safe home food storage in pantry and refrigerators (06)
(b) Differentiate between acute and chronic intoxication (04)

OR

Q. 6. (a) Write in detail about direct food additives (06)
(b) Write about deliberate intoxication (04)
