

Name:

Q1: Fill the blanks with suitable sentences:

1. The most two groups of pesticide identified as being extremely toxic to earth worms and most other soil organisms are.....and
2. Natural food preservatives are chemical that added to food to help;and
3. The tissue digestion of plants tissue can be made by two methods, they areand.....
4.is a general term used to describe any chemical interacting with an organism that does not occur in the normal metabolic pathways of that organism.
5. Germination% =.....
6. BFC =.....

Q2: Choose suitable phrases of the following criteria:-

1.is the concentration that has an effect on 50% of the test groups of an organisms
a. LD₅₀ b. LC₅₀ c. EC₅₀
2. is considered as a natural toxin:-
a. Mycotoxin b. Therapeutic drug c. Insecticide
3. The advantages of invertebrate animal testing due to:-
a. Short life cycle b. Housing and studying large no. are easy c. Both of them
4.is one of the natural food additives:-
a. NaCl b. CuSO₄ c. H₂SO₄
5. The acid used for digestion of water is
a. H₂SO₄ b. HCl c. HNO₃

Q3: A/ Identify this experiment.

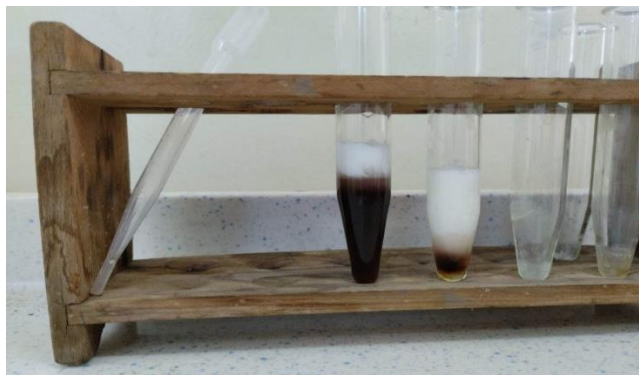
B/ What are the toxic substances used in this procedure?



Q4: A/ Identify and write the name of this experiment (name of lab).

B/ We have three (3) test to make this procedure.

1. What are they?
2. Which test applied in this procedure?



Q5: Identify these hazardous signs:



1



2



3



4



5

Q6: How can you explain your experiment and the results that you obtained from the toxicity tests of pesticides on earthworms lab?

Q7: A/ 1. Identify these two slides.

2. Write the name of this experiment.

B/ What are the differences between these two slides?



Q8: Answer (2) of the following questions:

1. What are mechanisms of the action of preservation of food?
2. What are the factors of the toxicity of hydrocarbons that depended on?
3. Write the steps of plant digestion in a diagram.

Q9: How can you explain your results when earth worms exposure to three types of pesticides (**herbicides, vermicide, insecticide**) for 1-2 weeks, compare that?

Q10: What are the differences between the following?

(15 marks)

1. Acute toxicity and chronic toxicity
2. Toxicology and toxinology
3. EC₅₀ and LC₅₀

Q11: Determine the LD₅₀ by Karber's methods on an acute toxicity testing of the effects of toxicant (Arsenic) on albino rats by administering single dose via oral for 14 days by using the following tables.

Arsenic sample size = 210	
Dose	Number of death
2	2
4	6
6	11
8	22
10	41
12	72
14	131
16	198
18	210

Q12: Write the uses and function of the following compounds: - (5 marks)

- 1) Bouin's fluid 2) Paraffin wax 3) DPX 4) Benzene 5) Freon

Q13: What are the important steps applied in PAHs detection? (5 marks)

Q15: How can the drugs be administered to test animals? (5 marks)

Q16: Give an example for the following toxicant items: (5 marks)

1. Toxicant contaminated foods. 2. Microbial toxicant. 3. Household product
4. Radiation toxicant. 5. Halogenated hydrocarbons

Q17: Classify the toxicity tests according to methods of adding test solution. (5 marks)

Q18: What are the experimental factors affecting toxicity testing on animal? (5 marks)

Q19: Choose suitable phrases of the following criteria:- (5 marks)

6. The germicidal UV radiation is ranged between:-
a. 100-200 b. 200-280 c. 280-315
7. An acid used for water digestion to detection of toxic metal is:
a. HCL b. H₂SO₄ c. HNO₃
8. Endotoxin is considered as:
a. Algal toxin b. Bacterial toxin c. Plant toxin
9. The major stains used for histopathological studies is:
a. Haematoxyline b. Eosin c. Both of them
10. Xylene is one the following:
a. Halogenated hydrocarbon b. Aliphatic hydrocarbon c. Aromatic hydrocarbon

Q20: *A/ Complete this equation: - (5 marks)*
BCF=

B/ Define it.

Q21: *Write the methods used for detection of each of the following:- (10 marks)*

1. Polycyclic Aromatic Hydrocarbons (PAHs).
2. Mycotoxins.

Q22: **Define the following terms:**

1. Cytology
2. Vivisection
3. LT_{50}
4. Retention time
5. Xenobiotic
6. Bioconcentration factors
7. LC_{50}
8. Digestion

Q23: *Give an example for the following toxicant items: (5 marks)*

1. Toxicant contaminated foods.
2. Microbial toxicant.
3. Household product
4. Radiation toxicant.
5. Halogenated hydrocarbons

Q24: **Write the types and uses of these following compounds: (15 marks)**

1. Xylene
2. Formaline
3. UV Light
4. Rat
5. Organochlorine
6. Paraffin wax
7. Benzene
8. NaCl
9. Vaseline
10. Freon

Q25: **Answer the (two) of the following questions: (20 MARKS)**

A/ When you can apply the pesticides in the field?

B / What are experimental factors should affect toxicity testing on animals?

C/ Write the steps of water digestion for detection of heavy metal?

Q26: What are the cytological alteration? Mention them.

Q27: What are the histological alteration? write about them.

Q28: What are mechanisms of toxicity.

Q29: Complete the following equations:

1. LC_{50} =
2. EC_{50} =
3. BCF=
4. Germination %=

Q30: What are the types of chemical stressor affecting organisms?

Q31: Match the sentences in column A with suitable sentences in column B

A	B
<ol style="list-style-type: none">1. HNO₃ used in2. NaCl cause3. Organochloride used in4. Pesticides cause5. Benzoic acid is	<ol style="list-style-type: none">a. Neurodevelopment disordersb. Halogenated hydrocarbonsc. Organic food preservativesd. Aliphatic hydrocarbonse. Kidney failuref. Fire extinguisherg. Digestion of waterh. Plasmolytic effecti. pesticides