

ZO-553**Toxicology**

M. Sc. Zoology (MSCZO-12)

Second Year, Examination, 2017

Time : 3 Hours

Max. Marks : 80

Note : This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Learners are required to attempt the questions contained in these Sections according to the detailed instructions given therein.

Section-A**(Long Answer Type Questions)**

Note : Section 'A' contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. Explain the mechanism of metabolism of insecticides with reference to microtonal mono-oxygenase.
2. Write the mechanism of toxicity of organophosphorus insecticides. Explain the consequence of organophosphorus compound poisoning.
3. Explain how the rotenone shows relatively low toxicity to the most mammal but very toxicity to insect and fish.
4. Explain the photodegradation of pyrethrins.

Section-B**(Short Answer Type Questions)**

Note : Section 'B' contains eight (08) short answer type questions of eight (08) marks each. Learners are required to answer *four* (04) questions only.

1. Discuss the effect of insecticides on the nervous system of insect.
2. How does the insect develop resistance against insecticides ?
3. Explain the terms biomagnifications and bio-accumulation in reference to pesticides residues.
4. Write the various factors affecting the penetration of cuticles.
5. Explain, how is the acetylcholine synthesized ?
6. Write the composition and biological activity of Neem.
7. What are the requirements of vicotinoids molecules ?
8. Write a short note on organophosphate.

Section-C**(Objective Type Questions)**

Note : Section 'C' contains ten (10) objective type questions of one (01) mark each. All the questions of this Section are compulsory.

1. Which among the following helps in circulation of blood ?
 - (a) Lymphocytes
 - (b) Monocytes
 - (c) Arithrocytes
 - (d) Blood platelets

2. Which among the following is a large spectrum antibiotic ?
 - (a) Penicillin
 - (b) Paracetamol
 - (c) Amphotericin
 - (d) Chloramphenicol
3. The diseases caused by asbestos is :
 - (a) Emphysema
 - (b) Diarrhea
 - (c) Paralysis
 - (d) Dysentery
4. Which of the following diseases is caused by a virus ?
 - (a) Malaria
 - (b) Ringworm
 - (c) Whooping cough
 - (d) Poliomyelitis
5. Pathogenic bacteria secrete :
 - (a) Antigens
 - (b) Antibodies
 - (c) Hormones
 - (d) Interferons
6. Which of the following blood cells is compulsory for blood coagulation ?
 - (a) Platelets
 - (b) Lymphocytes
 - (c) Red blood corpuscles
 - (d) White blood corpuscles

7. ELISA test is employed to diagnose :
 - (a) Cancer
 - (b) Polio Virus
 - (c) AIDS antibodies
 - (d) Tuberculosis bacterium
8. AIDS virus has :
 - (a) Single stranded RNA
 - (b) Double stranded RNA
 - (c) Single stranded DNA
 - (d) Double stranded DNA
9. Typhoid fever is caused by :
 - (a) Allergy
 - (b) Fungus
 - (c) Bacteria
 - (d) Virus
10. Virus contains :
 - (a) Protein and lipids
 - (b) Lipids and carbohydrate
 - (c) Nucleic acid and protein
 - (d) Carbohydrate and nucleic acid