

**MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE**  
**SEMESTER END EXAMINATION**

**B.Sc. (Agri.)**

<b>Semester</b> : IV (New)	<b>Term</b> : II	<b>Academic Year</b> : 2015-16
<b>Course No.</b> : SSAC 243	<b>Title</b> : Manures, Fertilizers and Agrochemicals	
<b>Credits</b> : 3 (2+1)		
<b>Day &amp; Date</b> : Tuesday, 03.05.2016	<b>Time</b> : 14.00 to 17.00	<b>Total Marks</b> : 80

- Note :**
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
  2. All questions from **SECTION "B"** are compulsory.
  3. All questions carry equal marks.
  4. Draw neat diagrams wherever necessary.

**SECTION "A"**

- Q.1 a) What is organic recycling? Enlist the sources of organic matter. Give the general composition of organic matter.  
b) Define manures. Classify the manures with suitable examples.
- Q.2 a) What is vermicompost? Explain the pit method of preparation of vermicompost.  
b) What is green manuring? State its advantages and disadvantages.
- Q.3 a) Define fertilizers. Classify the nitrogenous fertilizers with suitable examples.  
b) Define sewage and sludge. Write its effect on soil and crop.
- Q.4 a) Give the general characteristics and advantages of complex fertilizers.  
b) How will you improve the efficiency of phosphatic fertilizers for higher crop production.
- Q.5 a) Define biofertilizers. Classify the biofertilizers with suitable example.  
b) Define herbicide. Write in brief the general mode of action of herbicides.
- Q.6 a) What are phytohormones? Give its classification with suitable example.  
b) Give occurrence and mode of action of plant origin insecticides.
- Q.7 a) Define micronutrients. Write in brief the important role of micronutrients in crop growth.  
b) Give the classification and mode of action of organochloride insecticides.
- Q.8 a) Define pesticides and give its classification with suitable example.  
b) Define FYM. Enlist the methods of its preparation and explain any one.
- Q.9 a) Define composting. Explain Indore method of composting.  
b) Define fungicides. Give the structure and properties of organo-sulphur fungicides.
- Q.10 a) Enlist the steps in development of pesticides.  
b) Write in brief on storage and handling of NPK fertilizers.

**(P. T. O.)**

## SECTION "B"

Q.11 Match the following pairs.

"A"

- 1) Blood meal
- 2) Green leaf manuring
- 3) Defoliants
- 4) Schoenite
- 5) Chlorinated hydrocarbon
- 6) *Thiobacillus*
- 7) Nematicide
- 8) Attractant

"B"

- a) Sulphur oxidizing microorganism.
- b) Methyl bromide
- c) Glyricidia
- d) Muscalure
- e) Marine salt
- f) Aldrin
- g) Sodium chlorate
- h) Concentrated organic manure

Q.12 Fill in the blanks.

- 1) The C:N ration of saw dust is \_\_\_\_\_.
- 2) During anaerobic decomposition of cowdung slurry \_\_\_\_\_ gas is evolved.
- 3) The clear liquid that escapes from settling of sludge is known as \_\_\_\_\_.
- 4) Lime induced chlorosis in field crop is due to deficiency of \_\_\_\_\_ micronutrient.
- 5) Ammonium molybdate contains \_\_\_\_\_ per cent Mo.
- 6) \_\_\_\_\_ is a living floating association of aquatic fern and algae which fixes atmospheric nitrogen in submerged soil.
- 7) Carbaryl is classified as a \_\_\_\_\_ insecticide.
- 8) Organophosphate insecticides affect the \_\_\_\_\_ enzyme present in synapse.

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