

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : IV (New)	Term : II	Academic Year : 2016-17
Course No. : SSAC 243	Title : Manures, Fertilizers and Agrochemicals	
Credits : 3 (2+1)		
Day & Date : Monday, 08.05.2017	Time : 14.00 to 17.00	Total Marks : 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) Explain in detail chemistry of undecomposed organic materials.
b) Classify potassic fertilizers along with their properties.
- Q.2 a) Define Biofertilizer and give its importance in agriculture.
b) Define Insecticide. Give in detail regarding Nicotine insecticide.
- Q.3 a) Define Fungicide. Give the structure and properties of Phenyl Mercuric Acetate.
b) What is composting? Explain in brief the Indore method of composting.
- Q.4 a) Explain the properties, mode of action and structure of Glyphosate.
b) Define Chelates. Discuss the fate of micronutrients in soils.
- Q.5 a) Define Desiccants. Classify the Phytohormones with suitable examples.
b) Define Manures. Classify manures with suitable examples.
- Q.6 a) Enlist steps in the development of pesticides.
b) Write in detail about NADEP method of manuring.
- Q.7 a) Define Agrochemicals. Give classification of pesticide with examples.
b) Explain the reactions of Single Super Phosphate in soils.
- Q.8 a) Explain the mode of action of the organophosphates insecticides along with the properties of Malathion.
b) Give the significance of organic manures in soil properties.
- Q.9 a) Define Fertilizer. Give the manufacture process of Ammonium Sulphate.
b) Define Green Manuring Crops. Write the advantages and disadvantages of green manuring.
- Q.10 Write short notes (Any Four).
- 1) Enriched FYM
 - 2) Complex fertilizers
 - 3) Pyrenthrum
 - 4) Insecticide Act
 - 5) Vermicomposting
 - 6) Handling and storage of fertilizers

(P.T.O.)

SECTION "B"

Q.11. Match the following pairs.

"A"

- 1) Bangalore method
- 2) Rodenticide
- 3) Attractant
- 4) Green manuring
- 5) Vermicompost
- 6) Sesamax
- 7) Acaricide
- 8) Night soil

"B"

- a) *Eisenia foetida*
- b) Synergist
- c) Poudrette
- d) Lime sulphur
- e) Anaerobic decomposition
- f) Varfarin
- g) Methyl eugenol
- h) *Sesbania aculeate*

Q.12. State True or False.

- 1) In general C: N ratio of the saw dust is 72:1.
- 2) Oil cakes are partially decomposed inorganic materials used in agriculture.
- 3) Ammonium phosphate contains 52% P_2O_5 .
- 4) Biofertilizers are synthetic fertilizers prepared for the supply of nutrients.
- 5) $CaCN_2$ is the nitrate nitrogenous fertilizer.
- 6) Single super phosphate is highly hygroscopic in nature.
- 7) On an average it is assumed that FYM contains 0.5 per cent nitrogen.
- 8) Carnallite is copper bearing mineral.

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