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Seat No.: \_\_\_\_\_

No. of Printed Pages : 2

Sardar Patel University

B.Sc Examination Semester V

Subject Botany code USO5CBOT03

Microbiology Microtechnique and Forestry

Date 15/11/2019 Friday

Time 10:00 -1:00 pm

TOTAL MARKS 70

**Q 1 Multiple Choice Questions;**

**(10)**

I T M V was first isolated in crystalline form by

- (a) Miller (b) Stanley (c) Luria (d) Mayer

II Transformation experiment was first performed on ----- Bacteria

- (a) salmonella (b) Diplococcus pneumonia  
(c) Pasteurella (d) Escherichia coli

III Which one is a dehydration fluid

- (a) DPX (b) CPRF (c) Carnoy's fluid (d) TBA

IV Formaldehyde is an example of

- (a) Stain (b) Dye (c) Fixative (d) None of these

V Which one of the following is a precipitating fixative

- (a) Chromic acid (b) Ethanol (c) Potassium dichromate (d) Osmium tetroxide

VI Which wood is the example of extremely durable wood

- (a) Tectona grandis (b) Albizzia spp (c) Bombex (d) Sterculia spp

VII Fibre of commerce are obtained from ----- family

- (a) Myrtaceae (b) Rubiaceae (c) Sterculiaceae (d) Solanaceae

VIII Resin is obtained from

- (a) Acacia (b) Pinus (c) Cycas (d) Sabai grass

IX The most favoured plant of lac insect is

- (a) Melia azadirach (b) Rubia cordifolia  
(c) Schelicera leaca (d) Acacia nilotica

X Milky latex is the characteristic of \_\_\_\_\_ family

- (a) Rutaceae (b) Myrtaceae (c) Meliaceae (d) Euphorbiaceae

①

( P7c )

(20)

**Short Answer question (attempt any ten)**

- 1 Give economic importance of Actinomycetes.
- 2 Discuss about the properties of Virus.
- 3 Give the classification of Bacteria based on shape.
- 4 Define Maceration.
- 5 Write about the principles of staining
- 6 Give a brief account of Coal tar dye.
- 7 Differentiate wood and Timber.
- 8 Write main source and uses of Gum.
- 9 Define Sap wood and Heart wood.
- 10 What is composite wood.
- 11 Give Botanical name and uses of Katha and Cutch.
- 12 Write about the uses of plywood.

- Q3 (a) Describe the Ultra structure of Bacterial cell. (05)  
(b) Explain Bacteriophage. (05)

OR

- Q3 (a) Describe Lytic cycle in Virus. (05)  
(b) Describe Economic importance of Bacteria (05)
- Q4 What is fixative ? Explain any two type of fixative use in biological research. (10)

OR

- Q 4 (a) Write general account of Microtome and its uses. (05)  
(b) Write the process of Embedding. (05)
- Q 5 (a) Describe Wood preservative and their uses. (06)  
(b) Write main sources and uses of Resin. (04)

OR

- Q 5 (a) Describe source, uses and properties of Dye. (05)  
(b) Write a note on Grass oil. (05)
- Q 6 Explain properties, process and uses of natural Rubber. (10)

OR

- Q 6 (a) Discuss the process of paper making. (06)  
(b) Give general account of Charcoal. (04)