

(LI 120)

APRIL 2016

Sub. Code:2017

**M.D. DEGREE EXAMINATION  
BRANCH IV – MICROBIOLOGY  
PAPER IV – MYCOLOGY AND APPLIED MICROBIOLOGY AND  
RECENT ADVANCES**

*Q.P.Code: 202017*

**Time: Three Hours**

**Maximum: 100 Marks**

**I. Essay Questions:**

**(2 x 10 = 20)**

1. What is biomedical waste? Write in detail about the disposal of biomedical waste with special reference to terminal disposal.
2. Describe culture media used for the isolations and identification of fungus. Add note on preservation of fungus.

**II. Short Questions:**

**(8 x 5 = 40)**

1. Personal protective equipments (PPE).
2. Id reaction.
3. Role of MALDI – TOF in diagnostic microbiology.
4. Uses of mice in microbiological experiment.
5. Fungal vaccines.
6. Describe the method of extraction of Nucleic acid from bacterial culture.
7. What is Ectothrix and importance of Adamson Fringe?
8. Vaccine delivery system.

**III. Reasoning Out:**

**(4 x 5 = 20)**

1. Why Brucella is used commonly in bioterrorism?
2. Explain how phenotypic switching act as a virulence factor in candida?
3. Emerging new infection is nowadays common in many places. Discuss the reasons for it.
4. Why Dixon agar medium is useful in the isolation of Malassezia species? Add a note on modified Dixon agar.

**IV. Very Short Answers:**

**(10 x 2 = 20)**

1. Transcription mediated amplification (TMA).
2. Give reasons for grouping of prototheca under atypical fungi.
3. Transient bacteremia.
4. Scytalidium fungus.
5. What is standard precautions in infection control program?
6. Tetrazolium reduction medium.
7. Deuteromycetes.
8. What is asymmetric PCR?
9. Nude Mice.
10. Mention two uses of quality control in a clinical laboratory.

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