

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0522]

MAY 2022

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: (2 x 15 = 30)

1. Enumerate the commonly encountered *Aspergillus* species. Write in detail about the disease spectrum and lab diagnosis of infections caused by them. Add a note on role of biomarkers in diagnosis and management of invasive aspergillosis.
2. Define the term outbreak. Write in detail the steps involved in the investigation and management of an outbreak.

II. Short notes: (10 x 5 = 50)

1. Automated blood culture systems.
2. Rapid molecular antimicrobial resistance detection.
3. Bioterrorism.
4. Rhinosporidiosis.
5. Antifungal susceptibility testing methods.
6. Pneumococcal vaccines.
7. Hospital infection control committee.
8. Keratomycosis.
9. Diagnostic stewardship.
10. Catheter related blood stream infections (CR-BSI).

III. Reasoning Out: (4 x 5 = 20)

1. Lyophilisation is a good method for maintaining stocks of bacterial isolates.
2. Fungal culture plates are routinely incubated at 25°C as well as 37°C.
3. Reporting the accurate species identification of *Candida* isolated from clinical specimen is crucial.
4. Semi quantitative method is employed for reporting urine cultures.
