

M. Sc. 4th Semester Examination, 2025

**BIO-MEDICAL LABORATORY SCIENCE
AND MANAGEMENT**

(Diagnostic Microbiology II : Virology & Mycology)

00(Practical)

PAPER — BML-496

Full Marks : 50

Time : 4 hours

Answer all questions

The figures in the right hand margin indicate marks

- 01
1. Write the principle and standard operating procedure of KOH preparation for microscopic observation of fungi. Perform the procedure using the supplied specimen. Write the observation, result and interpretation of the test. (3 + 3) + 4 + 5

2. Write the principle and requirements of TaqMan real-time PCR. Demonstrate the preparation of 25 μ l PCR master-mix using the given reagents and consumables. Calculate the T_m values of the following primers and probe :

Forward primer : 5'- TTCGGAAACTAC
TGTTGTTAGAC-3'

Reverse primer : 5'- ATTGAGATTCCCG
AGATTGAGA-3'

Probe : FAM-5'-CCCTAGAAGAAGAAC
TCCCTCGCCTC-3'-BHQ1 (4 + 3) + 5 + 3

3. Viva-Voce 10
4. Laboratory notebook 10