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NEPNY—33—2023

FACULTY OF SCIENCE

M.Sc. (NEP) (First Semester) EXAMINATION

NOVEMBER/DECEMBER, 2023

MICROBIOLOGY

SMICC-402

(Advance Techniques in Microbiology)

(Friday, 22-12-2023)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—80

N.B. :— (i) Question No. 1 is compulsory.

(ii) Of the remaining, attempt any *three* questions.

(iii) Draw neat and labelled diagram wherever necessary.

1. Write short notes on : 20
 - (a) Differential centrifugation
 - (b) Capillary electrophoresis
 - (c) Applications of SEM
 - (d) Microbial image analysis.
2. Write on the following :
 - (a) Isopycnic centrifugation. 10
 - (b) Types of rotes. 10

P.T.O.

3. Discuss in detail :

- (a) Western blotting technique 10
- (b) Immunoelectrophoresis. 10

4. Write in detail :

- (a) Atomic force microscopy 10
- (b) Staining procedure of fluorescent microscopy. 10

5. Write on :

- (a) Automated plate assessment 10
- (b) Phenomatrix™ application. 10

6. Write short notes on :

- (a) CD 20
- (b) Agarose gel
- (c) FISH
- (d) AI.