


RAN-2403000501028003
B. Sc. Bioscience (Microbiology) (NCF-NEP) (Sem. - I) Examination March - 2026
Major - 2 - Basic Microbial Techniques (Paper - II)
Time: 1 Hr 30 Min.]
[Total Marks: 38
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) Figures to the right indicates full marks of the question.
- (3) Draw a neat & labelled diagram whenever necessary.

Seat No.:

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Student's Signature

Q. 1. Multiple choice questions: (Any eight)
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1. Which of the following is an incorrect one
 - a. Base-Arm-Body tube
 - b. 10X-40X-100X
 - c. Ocular lens-Condenser-Mirror
 - d. Base-Stage-Coarse adjustment knob
2. The ability of Microscope to distinguish two objects into two separate objects is called.
 - a. Resolving power
 - b. Wave length
 - c. N.A.
 - d. None of these
3. If 10x and 40x objectives are used (air is the medium), the numerical aperture is
 - a. 1.5
 - b. 2.0
 - c. 1.0
 - d. 1.8
4. Chromophore group of a dye is responsible for
 - a. Color of the dye
 - b. Ionization of dye
 - c. Fixation of the smear
 - d. All of the above
5. Which of the following is the correct one
 - a. Methylene blue-Crystal Violet-Safranin
 - b. Congo red-nigrosine-eosin
 - c. Indigo-haematoxylin-orcin
 - d. All of the above

6. Which of the following is natural dye?
 - a. Indigo
 - b. Haematoxylin
 - c. Orcein
 - d. All
7. Autoclaving is done at:
 - a. 100°C for 15 min
 - b. 121°C at 15 psi for 15-20 min
 - c. 160°C for 1 hour
 - d. 90°C for 1 hour
8. Disinfection is:
 - a. Destruction of all microbial life including spores
 - b. Destruction of vegetative pathogens on inanimate objects
 - c. Use of heat to sterilize media
 - d. Mechanical removal of microbes
9. Millipore filters are also known as,
 - a. Whatman filters
 - b. Bacteriological filters
 - c. HEPA filter
 - d. None

- Q. 2. Answer the following questions. (Any two) 10**
1. State the difference between light microscopy & electron microscopy.
 2. Describe in brief optical parts of bright field microscopy.
 3. Write a detail note on phase contrast microscopy.
- Q. 3. Answer the following questions. (Any two) 10**
1. Explain in brief about Inhibitor & Indicator dyes
 2. How to classify the Stain.
 3. Describe in brief about indirect staining.
- Q. 4. Answer the following questions. (Any two) 10**
1. Explain - Hot air Oven.
 2. Describe in detail on sterilization by radiation.
 3. Describe in brief about microbial control methods.