

B.Sc. (C.B.C.S. Pattern) Sem-I
MIC-02 - Microbiology Paper-II (Microbial Techniques)

P. Pages : 2

Time : Three Hours



GUG/W/19/11559

Max. Marks : 50

1. Write in detail principle, working and application of TEM. 10

OR

a) Write about optical part of bright field microscope. 2½

b) Explain numerical aperture. 2½

c) Describe principle of phase contrast microscope. 2½

d) Write in brief about SEM. 2½

2. Write mechanism, procedure and Applications of Gram Staining. 10

OR

a) Write about chromophore and Auxochrome. 2½

b) Write about Negative staining. 2½

c) Explain Acid first staining. 2½

d) Give classification of stains. 2½

3. Classify the bacteria based on carbon and energy source. 10

OR

a) Explain pour plate method. 2½

b) Write about enriched and enrichment media. 2½

c) Write about use of Agar-Agar in nutrient media. 2½

d) Explain streak plate method. 2½

4. Write the use of five chemical agent in microbial control. 10

OR

a) Write about most heat sterilization. 2½

b) Give the characteristics of ideal disinfectant. 2½

c) Describe use of radiation in microbial control. 2½

d) What is antiseptic, and Germicide. 2½

5. Write any ten.

a) What is magnification? 1

b) Name the oil use in oil immersion lens. 1

c) What is the use of dark field condenser. 1

d) Give example of Neutral stain. 1

e) What is natural and synthetic media. 1

f) Name any three culture collection center in India. 1

g) What is incineration? 1

h) What thermal death point? 1

i) Give the examples of halogens. 1

j) What is mordant? Give example. 1

k) What is the role of capsule. 1
