



RAN - 2203000206026004

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T.Y.B.Sc. (Sem. 6) Examination October - 2023

Microbiology

MB 604 - Diagnostic Microbiology

Time: 2 Hours]

[Total Marks: 50

सूचना : / Instructions

(१)

नीचे दशविवेक निशानीवाणी विगतो उत्तरवली पर अवश्य लपववी.
Fill up strictly the details of signs on your answer book

Name of the Examination:

T.Y.B.Sc. (Sem. 6)

Name of the Subject :

Microbiology MB 604 - Diagnostic Microbiology

Subject Code No.: **2203000206026004**

Seat No.:

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Student's Signature

- (2) Figures to the right indicate full marks of the question.
(3) Draw neat and labeled diagrams wherever necessary.

Q-1: Give specific answers: (12)

- Write full form of: PYR. For identification of which organism PYR test is carried out?
- What is the role of sodium polyanethol sulphonate in diphasic medium?
- Enlist any two reasons, why real time PCR instruments are noteworthy than conventional PCR?
- What are pro-zone and post-zone effect?
- What are Therapeutic and Toxic Doses?
- Give Two examples of automated antimicrobial susceptibility test systems.

Q-2: Explain/Comment on Any Two on following: (12)

- Justify: "To increase the sensitivity of hybridization, signal amplification methods like bDNA and hybrid capture are used."
- Complement fixation tests are classical method to demonstrate presence of antibody in serum
- Justify: "Antimicrobial chemotherapy has evolved from antiseptis efforts"

Q-3: Discuss Any Two of the following in detail: (16)

- a. Study of macroscopic and microscopic morphology for organism identification
- b. Write a detailed note on Direct whole pathogen Agglutination assay and Western Blot immunoassay.
- c. Discuss in detail: Antibiotics which interfere with bacterial cell wall synthesis

Q-4: Write Short notes on Any Two of the following (10)

- a. Collection and transport of throat and mouth swabs
 - b. Loop-mediated isothermal amplification (LAMP)
 - c. Fluorescent chemistry used in Real Time PCR
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