

THE TAMIL NADU DR.M.G.R. MEDICAL UNIVERSITY

[MD 0723]

**JULY 2023
(MAY 2023 EXAM SESSION)**

Sub. Code: 2015

**M.D. DEGREE EXAMINATION
BRANCH IV – MICROBIOLOGY
PAPER II – SYSTEMATIC BACTERIOLOGY**

Q.P. Code: 202015

Time: Three Hours

Maximum: 100 Marks

I. Essay:

(2 x 15 = 30)

1. A 30 year old male presented with h/o coated tongue, pyrexia, weakness, anorexia and vomiting for the past 4 days. He gives h/o eating food outside. On general examination tenderness in right lower hypochondrium of the abdomen. Blood culture shows non fermenting colonies on MacConkey medium. Identify the organism. Explain in detail about the classification of the above organism, clinical features, pathogenesis and lab diagnosis.
2. Classify Chlamydia and its pathogenic clinical conditions. Explain in detail about the Morphology, Life cycle, Clinical features, Pathogenesis, Lab diagnosis of Chlamydia.

II. Short notes:

(10 x 5 = 50)

1. Write in detail about the Toxins and Enzymes of Streptococcus Pyogenes.
2. Classify Diarrhoea causing Bacteria. Explain in detail about the classification of Escherichia coli and its individual pathogenesis. Add note on rapid diagnostic kits available and its principle.
3. A child aged 3 years came with c/o passing motion with blood and mucus 5 to 7 times. Give etiological factors with species level. Explain in detail about the Classification, Morphology, Clinical feature and Lab diagnosis of the above organism in brief.
4. Yersinia pestis.
5. Classify Vibrionaceae family. Explain in detail about the Morphology, cultural characteristics and lab diagnosis of Vibrio Cholera in brief.
6. Haemophilus ducreyi and Haemophilus aegyptius.
7. Legionnaires disease.
8. Relapsing fever.
9. Mycoplasma.
10. Lab diagnosis of Treponema pallidum.

III. Reasoning Out:

(4 x 5 = 20)

1. How *Shigella dysenteriae* Type 1 cause arthritis?
2. Explain how Biofilm Production Act as a virulent factor for balance?
3. The treatment of Bacterial Vaginosis depends of Nugent scoring.
4. Eijkman test is more reliable than MPN (Most Probable Number).

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