

**OLD**  
**Part II 3-Tier**  
**2016**  
**MICROBIOLOGY**  
**(Honours)**  
**PAPER—V**  
**(PRACTICAL)**

*Full Marks : 100*

*Time : 10 Hours*

*The figures in the margin indicate full Marks.*

Answers all questions.

1. Make a suitable slide of endospore from the supplied bacterial sample (A) using endospore stain and draw the spore after observation under microscope and comment on it. 8  
*(Work—4; Drawing—2; Comment—2)*
  
2. Identify the slides (B, C) with one appropriate reason. 2×2  
*(Reason—1; Identification—1)*
  
3. Enumerate the quantity of bacteria in the supplied broth (D) by spread plate technique and mention the nature of bacteria grown in the plate after gram staining and comment on it. 18

*(Turn Over)*

*(Procedure (schematic)—(3+2); Work—(3+2);  
Result—(4+2); Comment—2)*

4. Identify the biomolecular (E) through biochemical test and comment on it. 10

*(Sequential tests—6; Confirmatory test—3;  
Comment—1)*

5. Estimate the quantity (w/v) of RNA in the supplied solution (I) by orcinol method. 15

*(Principle—4; Procedure (schematic)—4, Result—7)*

6. Using TLC identify the unknown amino acid (J) by comparing with known four standards. 15

*(Principle—4; Procedure (Schematic)—3,  
Identification—4, Work—4)*

7. Submission of the report of educational excursion. 10

*(Submission of report—5; Discussion—5)*

8. Laboratory Note Book. 10

9. Viva-Voce. 10