Telephone No: 2419208/2419315/2419219/2419361

Fax: 0821-2419363/2419301



e-mail: registrar@uni-mysore.ac.in www.uni-mysore.ac.in

Vishwavidyanilaya Karyasoudha, Crawford Hall, Mysore-570 005.

No.AC.2(S)/151/2021-22

Dated: 18.08.2021

### **NOTIFICATION**

**Sub:** Minor Changes in the syllabus of Microbiology (UG) from the Academic Year 2021-22.

- **Ref:** 1. Decision of Board of Studies in Microbiology (UG) meeting held on 21.11.2020.
  - 2. Decision of the Faculty of Science & Technology Meeting held on 08.02.2021.
  - 3. Decision of Academic Council meeting held on 07.04.2021.

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The Board of Studies in Microbiology (UG) which met on 21.11.2020 has Minor changes were made in the syllabus of V and VI semester Practical scheme modified from the academic year 2021-22.

The Faculty of Science and Technology and Academic Council meeting held on 08.02.2021 and 07.04.2021 respectively have approved the above said proposal and the same is hereby notified.

The Modified Syllabus for the Microbiology (UG) program is annexed. The contents may be downloaded from the University Website i.e., <u>www.uni-mysore.ac.in</u>.

DRAFT APPROVED BY THE REGISTRAR

DEPUTY REGISTRAR (ACADEMIC)

Mvacre-579,005

Deputy Registrar (Academic)
University of Mysore

1. The Registrar (Evaluation), University of Mysore, Mysore.

- 2. The Dean, Faculty of Science & Technology, DOS in Psychology, MGM.
- 3. The Chairperson, BOS in Microbiology (UG), DOS in Microbiology (UG), Manasagangotri, Mysore.
- 4. The Chairman, DOS in Microbiology (UG), Manasagangotri, Mysore.
- 5. The Deputy/Assistant Registrar/Superintendent, AB and EB, UOM, Mysore.
- 6. The P.A. to the Vice-Chancellor/Registrar/Registrar (Evaluation), UOM, Mysore.
- 7. Office file.

To:

### **V SEMESTER**

### PRACTICAL-V: FOOD AND INDUSTRIAL MICROBIOLOGY

Duration: 3 hours Max. Marks: 80

## I. Write critical notes on A, B, C, D and E.

4x5=20 Marks

Yoghurt, Butter milk. Cheese, Molasses, Antifoam agents, Fermentor, Ethyl alcool, Wine, Penicillin, Lactic acid, Citric acid, Amylase, *Spirulina*, *Chlorella*, Mushroom) (Two from Food Microbiology, Two from Industrial Microbiology)

## II. Demonstrate or perform the experiment F giving principle and procedure. Record the result.

(Isolation and enumeration of bacteria from food utensils /Isolation and identification of fungi from food utensils /Isolation and enumeration of bacteria from spoiled vegetables/fruits /Isolation and identification of fungi from spoiled vegeables/fruits)

(Demonstration- 6 Marks, Principle- 2 Marks, Procedure- 4 Marks, Results- 2 Marks, Interpretation – 1 Mark)

III. Demonstrate or perform the experiment G giving principle and procedure. Record the result.

15 Marks

(Estimation of citric acid produced from *Aspergillus niger* by titrimetric method / Estimation of % alcohol in sample by specific gravity bottle method)

(Demonstration- 6 Marks, Principle- 2 Marks, Procedure- 4 Marks, Results- 2 Marks, Interpretation – 1 Mark)

IV. Conduct the given test for milk sample H. Record and interpret the result. 10 Marks (Methylene blue reductase test / Resazurin test / Phosphatase test / Litmus milk test, turbidity test, SPC, Casein hydrolysis)

(Demonstration- 5 Marks, Principle- 1 Mark, Procedure- 2 Marks, Results- 2 MarkS)

V, Viva-voce 10 Marks

VI. Report 10 Marks

# VI SEMESTER PRACTICAL-VI: IMMUNOLOGY AND MEDICAL MICROBIOLOGY

Duration: 3 hours Max. Marks: 80

## I. Write critical notes on A, B, C, D and E.

4x5=20 Marks

(Edward Jenner, Karl Landsteiner, Robert Koch, Paul Ehrlich, Elie Metchnikoff, bone marrow, thymus, spleen, lymph nodes, tonsils, Monoclonal antibodies, Mycobacterium tuberculosis, Tryponema pallidum, Salmonella typhi, Hepatisis virus, poliovirus, HIV, Candida albicans, Tinea, Plasmodium, Trichomonas vaginalis) (Two from Immunology, Two from Medical Microbiology)

## II. Demonstrate or perform the experiment F giving principle and procedure. Record the result. 15 Marks

(Blood group and Rh factor / Ouchterlony Double Diffusion / Single Radial Immuno Diffusion / Widal test / RPR test / Differential count of WBC)

(Demonstration- 6 Marks, Principle- 2 Marks, Procedure- 4 Marks, Results- 2 Marks, Interpretation – 1 Mark)

# III. Demonstrate or perform the experiment G giving principle and procedure. Record the result. 15 Marks

(Bacterial flora of skin by swab method / Antibacterial sensitivity by Kirby-Bauer method / Isoloation of bacteria from urine sample calibrated loop method)

(Demonstration- 6 Marks, Principle- 2 Marks, Procedure- 4 Marks, Results- 2 Marks, Interpretation – 1 Mark)

IV. Conduct the given biochemical test H for the bacterial culture by giving principle and procedure. Record and interpret the results.

(TSI test / Nitrate reduction test / Urease production test / Catalase tests / EMB agar, Mannitol salt agar)

(Demonstration- 5 Marks, Principle- 1 Mark, Procedure- 2 Marks, Results- 2 Marks)

V. Viva-voce 10 Marks

VI. Report 10 Marks