



MBF-003-001111

Seat No. _____

F. Y. B. Sc. (Sem. I) (CBCS) Examination

November / December – 2016

Microbiology : Paper-MB. P-101

MB-101 Fundamentals of Microbiology

[Old Course]

Faculty Code : 003

Subject Code : 001111

Time : $2\frac{1}{2}$ Hours]

[Total Marks : 70

- Instructions:** 1. All questions are compulsory
 2. Figures on right indicate marks

Ques.1 Answer the following

20

Fill in the Blanks:

- 1) Paramecium is an example of _____
- 2) Spontaneous generation theory was disapproved by _____
- 3) Antigen Antibody reactions can be studied by _____ Microscopy.
- 4) _____ enhances staining capacity in staining methodology.
- 5) _____ is nonliving structure of the cell, present external to the cell wall.
- 6) _____ granule is source of poly phosphate.
- 7) _____ is used as a reference compound to check potency of unknown chemical disinfectant.
- 8) _____ is an example of absorptive radiation.
- 9) _____ is part of stain, responsible for charge in stain.
- 10) For complete sterilization by autoclave, required temperature at 15 lbs is _____

Define:

- 1) Pasteurization
- 2) Biogenesis
- 3) Resolution
- 4) Autoradiography
- 5) Prosthaecae
- 6) Cyst
- 7) Sterilization
- 8) Leuco compound
- 9) Microbiocidal compounds
- 10) Mordant

Ques.2 (A) Answer specifically (Any 3)

3x2=6

- 1) what is the contribution of L.Spallanzani
- 2) what is magnification? What is d magnification of Light microscopy n electron microscopy?
- 3) what is chemotaxis
- 4) Define Antibiotic.
- 5) How hypertonic condition is helpful in sterilization?

Ques.2 (B) Answer Specifically (Any 3)

3x3=9

- 1) What is Protista.? Name d organism included in it.
- 2) Explain I brief: Phase Contrast Microscopy.
- 3) Discuss: Hydrodynamics of flagella
- 4) Write in brief about Carmine.
- 5) Enlist the characteristics of antibiotics that qualify them as chemotherapeutic agents.

Ques.2 (C) Write short notes (Any 2) **2x5=10**
1)Write a note on spontaneous generation vs Biogenesis
2)Explain in detail: Bright field Microscopy
3)Write a note on Capsule
4)How moist heat is employed in sterilization process?
5)Explain in detail: Staining mechanism of Gram's staining.

Ques.3 (A) Answer specifically (Any 3) **3x2=6**
1)Define:Vaccine. Who discovered chicken pox vaccine.
2)what is basic dye/Stain? Give example
3)Draw the structure of Spore
4)Define: Iodophore.
5) Write any two name of Antifungal antibiotics.

Ques.3 (B) Answer Specifically (Any 3) **3x3=9**
1)Enlist any three contribution of Loouis Pasture
2)Explain in brief: Dark Field Microscopy
3)Draw the structure of Outer membrane
4)How ethylene oxide is useful in sterilization?
5) Wrtie in brief on Hematoxylin and Brazilin

Ques.3(C) Write short notes (Any 2) **2x5=10**
1)Compare n Contrast SEM n TEM
2)Write a note on groups of micro organism
3) Write a note on bacterial Cell Wall
4)Write a note on characteristics of an ideal antimicrobial agents.
5)Discuss in detail Phenol coefficient technique.
