

B.Sc. Semester - 1 (CBCS) Examination
Oct/Nov. -2019 (OLD COURSE)
MICRO BIOLOGY(CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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Ques.1 A. Answer the following (One mark each) **4**

- 1) Define: Microbiology.
- 2) Define: Biogenesis.
- 3) Enlist five kingdoms of Whittaker's classification.
- 4) What is the contribution of Robert Koch?

Ques.1 B. Answer in brief (Any one out of two) **2**

- 1) What is the contribution of Edward Jenner?
- 2) Enlist applied areas of Microbiology.

Ques.1 c. Answer in detail (Any one out of two) **3**

- 1) Enlist Koch's Postulates.
- 2) What is the Kingdom Monera and Kingdom Protista? How they differ?

Ques.1 d. Write a note on (Any one out of two) **5**

- 1) Write a note on spontaneous generation Vs Biogenesis.
- 2) Write a note on Germ theory of disease.

Ques.2 A. Answer the following (One mark each) **4**

- 1) Define: Numerical Aperture.
- 2) Define: Fluorescence.
- 3) Define: Autoradiography.
- 4) Define: Stain.

Ques.2 B. Answer in brief (Any one out of two) **2**

- 1) What is Dark field Microscopy.
- 2) Explain Fluorescent antibody technique.

Ques.2 c. Answer in detail (Any one out of two) **3**

- 1) What is Phase contrast Microscopy? Explain in detail.
- 2) What is confocal Microscopy?

Ques.2 d. Write a note on (Any one out of two) **5**

- 1) Explain in detail Preparation for light Microscopy examination and compare it with electron microscopic examination.
- 2) Compare and Contrast SEM and TEM.

Ques.3 A. Answer the following (One mark each) **4**

- 1) Define: Prosthaecae
- 2) Define: Pili
- 3) What is PHB Granules?
- 4) What is Mesosome?

Ques.3 B. Answer in brief (Any one out of two) **2**

- 1) Define Protoplast and Sphaeroplast
- 2) Define: Peptidoglycan

Ques.3 c. Answer in detail (Any one out of two)	3
1) Explain Capsule in detail.	
2) Explain Bacterial Cyst.	
Ques.3 d. Write a note on (Any one out of two)	5
1) Bacterial Flagella.	
2) Bacterial Endospore.	
Ques.4 A. Answer the following (One mark each)	4
1) Define: Cultivation.	
2) Define: Auxotroph.	
3) Define: Lithotrophs.	
4) Define: Psychrotrophs.	
Ques.4 B. Answer in brief (Any one out of two)	2
1) Define Mixotrophs.	
2) Define Facultative anaerobes.	
Ques.4 c. Answer in detail (Any one out of two)	3
1) What is Oxygen Toxicity? Explain in detail.	
2) Enlist nutritional requirements of Bacteria.	
Ques.4 d. Write a note on (Any one out of two)	5
1) Explain Bacteriological Media in detail.	
2) Write a note on nutritional types of Bacteria.	
Ques.5 A. Answer the following (One mark each)	4
1) Define: Reproduction.	
2) What is synchronous growth.	
3) Define: Generation time.	
4) What is Binary fission?	
Ques.5 B. Answer in brief (Any one out of two)	2
1) What is Budding? Name the budding bacteria.	
2) What is Growth rate? What is the growth rate of <i>E.coli</i> ?	
Ques.5 c. Answer in detail (Any one out of two)	3
1) Continuous growth.	
2) Fragmentation and sporulation for cell division with example.	
Ques.5 d. Write a note on (Any one out of two)	5
1) Bacterial Growth curve.	
2) Septum Formation.	
