



Register Number: .....

**B.TECH DEGREE EXAMINATIONS: MAY 2015**

(Regulation 2013)

Third Semester

**BIOTECHNOLOGY**

U13BTT302: Microbiology

**Time: Three Hours**

**Maximum Marks: 100**

**Answer all the Questions:-**

**PART A (10 x 1 = 10 Marks)**

- Who developed the pure culture technique?  
A) Louis Pasteur      B) Robert Koch      C) Fleming      D) Jenner
- Antibody present in colostrums is \_\_\_\_\_
- Which staining technique retaining the initial stain?  
A) Gram's staining      B) Acid fast staining      C) Giemsa staining      D) capsule staining
- Salt agar is used for \_\_\_\_\_
- Methane oxidizing bacteria produce \_\_\_\_\_  
A) Exospores      B) Endospores      C) Akinetes      D) Heterocyst
- \_\_\_\_\_ is the site of protein synthesis
- The main feature of prokaryotic organism is  
A) Absence of locomotion      B) Absence of nuclear envelope  
C) Absence of nuclear material      D) Absence of protein synthesis
- The process of killing the bacterium using pasteurization is \_\_\_\_\_
- Symbionts are  
A) Bacteria in symbiotic association  
B) The group of fungi in symbiotic association  
C) The groups participating in symbiotic association  
D) The group affect the host
- Which viruses have bullet shaped \_\_\_\_\_

**PART B (10x2=20 Marks)**

**(Not more than 40 words)**

11. Define pasteurization.
12. What is anabolism?
13. Define capsomere.
14. Give an account on fibrinolysin.
15. Define the formation of eutrophication.
16. Explain on aflatoxin.
17. Define MIC.
18. Describes about Denitrification.
19. What is okazaki fragments?
20. What is putrifaction?

**PART C (5x14=70 Marks)**

**(Not more than 400 words)**

**Q.No. 21 is Compulsory**

21. Describe the morphology and structure of bacterial cells with suitable diagram.

22. a) (i) Explain the types of sterilization. (7)

(ii) Explain the phases of bacterial growth. (7)

**(OR)**

b) Briefly state the characters of the following:

(i) Archaeobacteria. (7)

(ii) Write in detail about the koch's postulate. (7)

23. a) Describe the Griffith experiment.

**(OR)**

b) Explain the mutation and explain spontaneous mutation.

24. a) Write an essay on structure and replication of TMV.

**(OR)**

b) Explain the mycoses and its types.

25. a) (i) Explain alkalophiles.

(4)

(ii) Describe the growth parameters.

(10)

**(OR)**

b) (i) Explain the carbon cycle.

(7)

(ii) Explain the microbial leaching.

(7)

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