

B.Sc. (With Credits)-Regular-Semester 2012 Sem. I  
**MIC-01 - Microbiology : Paper-I (General Microbiology)**

P. Pages : 2

Time : Three Hours



**GUG/W/16/3319**

Max. Marks : 50

- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw well labelled diagram wherever necessary.

1. What is controversy over spontaneous generation? Give contributions of followings to prove biogenesis. **10**  
a) L. S. Pallanzani  
b) Louis Pasteur  
c) Schroder & Von Dusch.

**OR**

Describe the structure of gram positive bacterial cell wall.

2. What are plasmids? Describe their different types. **10**

**OR**

Discuss lytic cycle of virus multiplication.

3. a) Enlist applied branches of microbiology and describe biotechnology. **2½**  
b) Describe fluid mosaic model of cell membrane. **2½**  
c) Describe the structure of 70s ribosome. **2½**  
d) Give general characters of viruses. **2½**

**OR**

- e) Give contributions of Robert Koch for the development of microbiology. **2½**  
f) Describe the structure of typical bacterial cell. **2½**  
g) Write note on sporulation. **2½**  
h) Describe chick embryo method of virus cultivation. **2½**
4. a) Describe the discovery of microscope and microorganisms. **2½**  
b) Give the comparison between procaryotes and eucaryotes. **2½**  
c) Describe the structure of nucleoid. **2½**  
d) Explain Lysogenic cycle with suitable diagram. **2½**

**OR**

- e) Give the contributions of Joseph Lister. 2½
- f) Describe the structure and functions of Gram negative flagella. 2½
- g) Write note on inclusion bodies. 2½
- h) Describe LHT system of virus classification. 2½
- 5. Solve any ten of the followings. 10**
- a) Who is known as father of vaccine?
- b) Give the contribution of A. M. Chakraborty.
- c) What is Dust free box? Who investigation it.
- d) What are tetracocci?
- e) Differentiate capsule and slime layer.
- f) What is sex pill? Give its function.
- g) Give two subunits of 80s ribosome.
- h) Write two functions of mesosome.
- i) What are R – plasmids?
- j) Who discovered TMV virus?
- k) What is prophage?
- l) Define prion.

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