

**S.Y.B.SC. SEM – IV (2014 COURSE) : WINTER - 2017**  
**SUBJECT: MICROBIOLOGY: PRINCIPLES OF DISEASE, EPIDEMIOLOGY & IMMUNOLOGY (MB-41)**

Day : Thursday  
Date : 26/10/2017

**W-2017-0629**

Time: 03.00 PM TO 05.00 PM  
Max. Marks: 40

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**N. B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
  - 3) Draw neat and labeled diagrams **WHEREVER** necessary.
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**Q.1** Attempt **ANY TWO** of the following : **(10)**  
a) Giving suitable examples, explain 'Experimental Epidemiology'.  
b) Describe the mechanism of 'Phagocytosis'.  
c) Define the term 'Hapten' and discuss 'Sequential Epitopes'.

**Q.2** Attempt **ANY TWO** of the following : **(10)**  
a) Giving suitable examples, discuss 'Transmission of diseases by direct contact'.  
b) Differentiate between 'Active immunity' and 'Passive immunity'.  
c) With the help of appropriate examples, explain the concept of 'Herd immunity'.

**Q.3** Write short notes on **ANY TWO** of the following : **(10)**  
a) Ig E  
b) Significance of 'Adjuvants'  
c) Normal-flora of human being

**Q.4** Attempt **ANY FIVE** of the following : **(10)**  
a) Give the functions of Ig M.  
b) Write any two examples of waterborne diseases.  
c) Mention the names of defensive proteins present in Eosinophils.  
d) Define the term 'Carrier protein'.  
e) What are 'Droplets' and 'Droplet Nuclei'?  
f) Mention any two tests used for measurements in epidemiology.  
g) Mention the molecular weight and heavy chain antigenic determinant of Ig G.

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