



# UNIVERSITY OF THE PUNJAB

**B.A. / B.Sc. Part-II**  
**Annual Exam - 2017**

Roll No. ....

**Subject: Microbiology-II**  
**PAPER: A**

**TIME ALLOWED: 2 hrs. & 20 Mints.**  
**MAX. MARKS: 40**

## USE SEPARATE ANSWER SHEET FOR PART-II

**Note: Attempt Any Four Questions from Part-II. Each Question carry 10 Marks.**

### Part-II

Q1.	Write down the morphological differences between <i>Staphylococci</i> and <i>Streptococci</i> and also enlist the infections caused by <i>Staphylococci</i> and <i>Streptococci</i> ?
Q2.	Explain the pathogenicity and complete diagnosis of typhoid fever?
Q3.	Define <ul style="list-style-type: none"><li>a. Virulence</li><li>b. Epitopes</li><li>c. antigens</li><li>d. opsonins</li><li>e. adjuvants</li></ul>
Q4.	Write short notes on any two <ul style="list-style-type: none"><li>a. TB diagnosis</li><li>b. Bacillary dysentery</li><li>c. HIV transmission</li></ul>
Q5.	Differentiate between the specific and non specific immune systems?
Q6.	Describe the morphological features of <i>Vibrio cholera</i> ? Explain its mechanism of action?
Q7.	Discuss the structure of Influenza and its pathogenesis in detail?



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**TIME ALLOWED: 40 Mints.**  
**MARKS: 30**

**ATTEMPT THIS PART-I ON THIS QUESTION SHEET ONLY**

**Note: Part-I (Q1 & Q2) is compulsory**

**Part-I**

Q1.	<p><b>MCQs (25 marks)</b></p> <ol style="list-style-type: none"><li>1. Histamine is released by<ol style="list-style-type: none"><li>a. Dendritic cells</li><li>b. Mast cells</li><li>c. lymphocytes</li><li>d. All of the above</li></ol></li> <li>2. Antibodies are produced by<ol style="list-style-type: none"><li>a. T cells</li><li>b. Eosinophils</li><li>c. B cells</li><li>d. platelets</li></ol></li> <li>3. Foreign molecules that evoke an immune response are<ol style="list-style-type: none"><li>a. Antigen</li><li>b. Antibody</li><li>c. immunogens</li></ol></li></ol>
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d. a and c

4. Immunoglobulin that can cross the placenta

a. IgG

b. IgM

c. IgA

d. IgE

5. Naive cells are

a. lymphocytes

b. Eosinophils

c. Basophils

d. neutrophils

6. Thymus tissue also produces hormones

a. Thymosin

b. Thymopoietin

c. All of the above

d. None of the above

7. The variable region is composed of \_\_\_\_\_, give the antibody its specificity for binding antigen

a. amino acids

b. carbohydrates

c. lipids

d. vitamins

8. The \_\_\_\_\_ regions directly contact a portion of the antigen's surface

a. Variable regions

b. Constant regions

c. Hypervariable regions

d. All of the above

9. Immunogloblins function as

a. haptens

- b. heterophils
- c. isoantigens
- d. antibodies

10. Hinge region is between the

- a. C<sub>H</sub>1 and C<sub>H</sub>2 domains
- b. C<sub>H</sub>2 and C<sub>H</sub>3 domains
- c. C<sub>H</sub>3 and C<sub>H</sub>4 domains
- d. C<sub>H</sub>1 and C<sub>H</sub>3 domains

11. Chemical mediators include

- a. cytokine
- b. histamine
- c. arachonic acids
- d. All of the above

12. Antigen presenting cells are

- a. macrophages
- b. dendritic cells
- c. B cells
- d. All of the above

13. The study of antigen-antibody reactions in the form of precipitates is known as

- a. agglutination
- b. precipitin
- c. immunoelectrophoresis
- d. None of the above

14. Organisms responsible for typhoid

- a. *Salmonella typhi*
- b. *Salmonella paratyphi A*
- c. *Salmonella paratyphi B*
- d. All of the above

15. Rabies virus produce cytoplasmic inclusion bodies in nerve cells called

- a. Black bodies
- b. Negri bodies
- c. Allo bodies
- d. Idio bodies

16. The study of antigen antibody reactions *in vitro* is known as

- a. serology
- b. forensic
- c. genetics
- d. bioinformatics

17. At what time thymus reach to its maximum size

- a. First year of life
- b. puberty
- c. 40-50 years of age
- d. None of the above

18. Primary lymphoid organs are

- a. Bone marrow and spleen
- b. Spleen and lymph nodes
- c. Bone marrow and thymus
- d. MALT and GALT

19. Which of the following is an example of passive immunity

- a. long-term immune protection
- b. infusion of weakened viruses
- c. passage of IgG antibodies from the pregnant mother to her fetus
- d. booster shot

20. Phagocytosis is an example of

- a. endocytosis
- b. exocytosis
- c. pinocytosis

d. None of the above

21. Which of the following is **NOT** an example of non-specific immunity

- a. NK cells
- b. Antibodies
- c. complement
- d. Interferons

22. *Influenza viruses* are able to change their antigenic structure. This major change is known as

- a. Antigenic shift
- b. Antigenic drift
- c. Antigenic gift
- d. Antigenic rift

23. Trophozoites, Schizonts and gametocytes of all the malarial parasites are seen in the peripheral blood smear except;

- a. *Plasmodium falciparum*
- b. *Plasmodium vivax*
- c. *Plasmodium ovale*
- d. None of the above

24. In Albert stained smear, *C. diphtheria* stains

- a. Green
- b. Blue
- c. Yellow
- d. Red

25. Immunoglobulin found in secretions is

- a. IgG
- b. IgA
- c. IgM
- d. IgD

Q2.

Draw a diagram of an antibody? (5 marks)