

## 大葉大學 96 學年度轉學招生考試試題紙

學系	部別： 日間部/第二部/ 進修學士班/四技	年級	考試科目 (中文名稱)	考試日期	節次	備註 共三頁
生命科學系	日間部	三	普通微生物學	7月31日	13:30 14:50	P2-1

註：考生可否攜帶計算機或其他資料作答，請在備註欄註明（如未註明，一律不准攜帶）。

單選題，共 20 題，每題 5 分。(請依題號於答案卡上畫記作答，答錯不倒扣)

1. Which of the following traits are NOT characteristic of coliforms?
  - (A) They appear rod-shaped under the microscope. (B) They are Gram-negative. (C) They include *Escherichia*, *Klebsiella*, *Proteus*, and many other coliform opportunistic bacilli. (D) They are aerobic or facultatively anaerobic.
2. The causative pathogen for bubonic and pneumonic plague is
  - (A) *Y. enterocolitica*. (B) *Y. pseudotuberculosis*. (C) *S. enterica*. (D) *Y. pestis*.
3. Why is lysogeny advantageous to a bacteriophage?
  - (A) It speeds up the viral life cycle. (B) It enables the bacteriophage to take over the cell. (C) It allows the bacteriophage to destroy the host cell's DNA. (D) The genetic material of the phage can be inherited by future generations of cells
4. Resistance of *Pseudomonas* to a wide range of antibacterial agents is partly due to its
  - (A) use of the Entner-Doudoroff pathway as its major means of catabolizing glucose. (B) production of exoenzyme S. (C) ability to utilize a wide range of organic and nitrogen sources. (D) ability to form biofilms.
5. Which of the following organisms produces concentric wavelike patterns due to swarming cells when it is cultured on agar?
  - (A) *Pseudomonas* (B) *Shigella* (C) *Proteus* (D) *Klebsiella*
6. Which of the following is a major source of disease transmission in the world?
  - (A) food-borne transmission (B) fecal-oral infection (C) bodily fluid transmission (D) water-borne transmission
7. *Treponema pallidum* can be spread by all of the following modes of transmission EXCEPT: (A) by infected fomites. (B) through transplanted organs. (C) through sexual intercourse. (D) by infected blood transfusion.
8. The most important virulence factor of *Vibrio cholerae* is
  - (A) the fact that it is oxidase positive. (B) its ability to survive in fresh water. (C) its ability to produce a potent exotoxin. (D) the presence of two axial flagella.
9. The term "sterilization" applies to the removal of all of the following EXCEPT:
  - (A) viruses. (B) fungi. (C) bacterial endospores. (D) prions.
10. Which of the following pathogens is associated with the development of a peptic ulcer?
  - (A) *Vibrio cholerae* (B) *Escherichia coli* (C) *Salmonella typhi* (D) *Helicobacter pylori*

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分子生物科技學系	日間部	三	普通微生物學	7月31日	13:30 14:50	P2-2

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11. The spores of which of the following microbes are the most resistant to every known sterilization technique?  
(A) *Pseudomonas aeruginosa* (B) *Clostridium botulinum* (C) *Neisseria gonorrhoeae* (D) *Bacillus stearothermophilus*
12. Which of the following cells does NOT have the ability to release histamine?  
(A) basophils (B) mast cells (C) macrophages (D) platelets
13. A virus usually infects only certain types of cells due to  
(A) particular genes that it shares with the infected cell. (B) differences in size between the virus and the host cell. (C) interactions between viral and cellular surface molecules. (D) the speed with which it can enter these cells
14. Which of the following agars is preferred for the culture of fungi?  
(A) MacConkey agar (B) Sabouraud dextrose agar (C) sheep blood agar (D) chocolate agar
15. All of the following statements concerning viruses are true EXCEPT:  
(A) Viruses enter a cell to complete the replication they have begun extracellularly. (B) Tobacco mosaic virus was the first to be discovered and characterized. (C) Viral capsids can assume one of three basic shapes. (D) Some viruses have an outer membrane called an envelope.
16. Which of the following genetic traits does NOT increase the host's resistance to malaria?  
(A) Hemoglobin C (B) the sickle-cell trait (C) Hemoglobin F (D) genetic deficiency of glucose-6-phosphate dehydrogenase
17. Smallpox is the first human disease to be  
(A) identified as a viral disease. (B) analyzed and studied. (C) treated. (D) globally eradicated.
18. All of the following are antiphagocytic factors produced by pathogens EXCEPT:  
(A) leukocidins. (B) capsules. (C) cytotoxins. (D) M protein.
19. Dengue hemorrhagic fever is actually  
(A) an autoimmune disease. (B) the chronic carrier state of the dengue virus. (C) a hyperimmune response to reinfection with dengue fever. (D) an antibody-antigen complex reaction.
20. Which of the following cells is a major reservoir for HIV?  
(A) B lymphocytes (B) monocytes (C) T-helper cells (D) dendritic cells