

第一大題 (30%)

1. 什麼是生物膜 "biofilm"? 其與細菌對抗抗生素有何關係? (10%)
2. 請列舉革蘭氏陽性及陰性細菌各壹種? 並詳述其各自的致病機轉? (10%)
3. 請舉例說明細菌基因體資訊對基礎研究上的應用及貢獻有那些? (10%)

第二大題 (30%)

1. (填充題, 請依序填在答案卷上) 禽流感病毒在分類上屬於 ① (科, family), 其變異很多的原因是 ②, 其防治上的方法是 ③, 至今人的感染主要傳染途徑是 ④, 禽流感對人類的最大威脅是 ⑤. (5%)
2. (配合題) 請由右邊選項中選出最適合的項目, 將答案依序填在答案卷上(10%)。

① Enterovirus	A. Hemorrhagic fever
② Norovirus	B. wart
③ Denguevirus	C. acute gastroenteritis
④ Papilloma virus	D. Subacute sclerosing panencephalitis
⑤ Reovirus	E. rabies
⑥ Hepatitis C virus	F. The genome is translated into a polyprotein
⑦ Prion	G. Transmission through transfusion
⑧ Measles virus	H. Congenital defects
⑨ Rhabdovirus	I. Subacute spongiform encephalopathy
⑩ Cytomegalovirus	J. double stranded RNA genome

3. 解釋名詞 (10%)
 - ① Herd immunity
 - ② Latent infection
 - ③ Reverse transcriptase
 - ④ Infectious Mononucleosis
 - ⑤ MMR vaccine
4. 簡述 Human immunodeficiency virus (HIV)
 - ① 傳染途徑 (1%)
 - ② 細胞內複製機轉 (2%)
 - ③ 致病機轉 (2%)

第三大題 (40%)

1. 解釋名詞(各 3 分)
 - A. Toll like receptor
 - B. anergy
 - C. invariant chain
 - D. negative selection
 - E. affinity maturation
 - F. clonal deletion

見背面

2. The sites in or on antigens with which antibodies react are called: (單選, 3分)

- A. haplotypes
- B. isotopes
- C. epitopes
- D. idiotypes
- E. allotypes

3. Which of the following vaccine is most effective in preventing infection? (單選, 3分)

- A. live attenuated virus
- B. heat killed virus
- C. genetically engineered recombinant viral virulent proteins
- D. DNA vaccine encoding viral proteins
- E. non of the above, it depends case by case

4. 配合題: pick up the right answer from the below list (單選, 共 16分)

- _____ (1) invariant chain
- _____ (2) tumor antigens
- _____ (3) PGYAVEDGGMLL peptide
- _____ (4) HLA-DM
- _____ (5) superantigen
- _____ (6) RAG-1
- _____ (7) contact dermatitis
- _____ (8) serum sickness

- (A). MHC class I antigen presentation
- (B). MHC class II antigen presentation
- (C). class III antigen
- (D). antigen binding sites in T cell receptor (TCR)
- (E). NK cell receptor
- (F). Initiate the cutting of recombination sequence-specific DNA cleavage during Ig gene rearrangement
- (G). affinity maturation
- (H). generation of memory cells
- (I). Type I hypersensitivity
- (J). Type II hypersensitivity
- (K). Type III hypersensitivity
- (L). Type IV hypersensitivity

試題隨卷繳回