

系 級	科 目	授 課 教 師	考 試 日 期	學 號	姓 名
牙 四	口腔微生物	周幸章	92年 1 月 12 日第 節		

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◆ 下列問答題請將答案寫於答案紙

1. 請說明何謂 major histocompatibility complex (MHC)，其分類及其抗原呈現之路徑。(12%)
2. 請說明何謂 human leukocyte antigens (HLA)的多型性(polymorphism)，及其在個體演化遺傳上之重要性。(8%)
3. 請簡單說明 endothelial injury 導致 atheroma 形成之病理機制。(10%)
4. 請舉例說明口腔中之細菌感染可能引發心血管疾病之病理機制。(10%)
5.
 - a. 請列出 early-onset periodontitis 之主要致病菌。(3%)
 - b. 請列出 Adult periodontitis 之主要致病菌 (Very strongly and strongly suspected pathogens)。(5%)
6. 請簡述因細菌感染牙周組織而引起牙周組織之免疫發炎反應。(10%)

◆ 選擇題請將答案寫於第三頁之選擇題答案欄

謝老師的考題

1. Which cells have the function of phagocytosis in the lesions of endodontic origin?
(2%)
 1. Neutrophils & T cells
 2. Neutrophils & Eosinophils
 3. Neutrophils & Monocyte
 4. B cells & Eosinophils
2. Which cell have the function of immediate-type hypersensitivity(2%)
 1. Neutrophils
 2. Eosinophils
 3. B cells
 4. T cells
3. Which kinds of antibody will be secreted by plasma cells in the lesions of endodontic origin? (2%)
 1. Ig M, Ig G
 2. Ig G, Ig A
 3. Ig A, Ig M
 4. IgG, IgM, IgA
4. _____ is expressed at very high levels on osteoclastic precursors and on mature osteoclasts, and is required for differentiation and activation of the osteoclast.
(2%)
 1. RANK
 2. RANKL
 3. OPGL
 4. OPG

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5. _____ functions as a soluble decoy receptor for RANKL (2%)

1. RANK
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6. Which statement is incorrect? (2%)

1. The lysis of gram-positive bacteria causes them to release lipopolysaccharide (LPS;endotoxin) from the outer membrane of their cell wall.
2. One of the known function of LPS is the stimulation of bone resorption by osteoclast.
3. The LPS binds to a LPS-binding protein circulating in the blood and this complex, in turn, binds to a receptor molecule (CD14) found on the surface of body defense cells called macrophages.
4. This triggers the macrophages to release various defense regulatory chemicals called cytokines, including IL-1, IL-6, IL-8, TNF-alpha, and PAF.

賈老師的考題

7. If you wish to detect the level of IgG in the oral cavity, where will you expect to find the highest concentration of IgG? 2%

- a. Parotid s saliva
- b. Sublingual saliva.
- c. Submandibular saliva
- d. Crevicular fluid.
- e. No IgG can be detected in oral cavity.

8. The composition that provide lubrication of the saliva is? 2%

- a. Proline-rich protein
- b. glycoprotein
- c. Amylase
- d. Statherin
- e. Lactoferrin.

9. Which of the following orgnism is (are) true about glucan? 2%

1. is one of the major constituent of dental plaque
 2. is glucose homopolymer
 3. is glucose and fructose heteropolymers
 4. is synthesized by glucosyltransferase with sucrose as substrate
 5. is synthesized by glucosultrasferase with glucose as substrate
- a. 1 and 2.
 - b. 1, 3, 4.
 - c. 1, 2,5.
 - d. 1 and 3.
 - e. 1, 2, 4.

10. A state, that host and flora exist in stable balance is called 2%

- a. Synergism
- b. Symbiosis
- c. Antibiosis
- d. Antagonism
- e. Amphibiosis.

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11. Which of the following species is the first colonizer for supragingival plaque ? 2%
- mutans streptococci
 - Streptococcus sanguis
 - Streptococcus salivarius
 - Streptococcus melleri
 - Actinomyces
12. Which of the following statement is true about phosphotransferase system PEP-PTS ? 2%
- is an active transport system of streptococci for sugar
 - is an active transport system of streptococci for glucose only
 - is an active transport system of streptococci for amino acid
 - is a metabolic pathway for amino acid in G (-) bacteria
 - is a metabolic pathway for amino acid of streptococci
13. "Subsurface demineralization" of smooth surface of tooth means ? 2%
- The decalcification always started in the inner layer of enamel.
 - An intact or remineralized surface is always present.
 - The acid concentration is higher in the inner surface of enamel.
 - The calcium concentration is higher in the outer surface layer.
 - The bacteria can penetrate the enamel surface and destroy the inner layer of enamel.
14. The Mitis-Salivarius-Bacitracin (MSB) agar for Streptococcus mutans is a ? 2%
- complex medium
 - enriched medium
 - defined medium
 - selective medium
 - differential media
15. Which of the following statement(s) about secretory IgA is (are) true ? 2%
- It has two subclass IgA1 and IgA2
 - Usually occurs as dimer.
 - IgA2 is particularly sensitive to G (-) bacterial protease.
 - IgA1 predominates in saliva.
 - Secretory component increase the resistance to proteolytic enzymes.
- 1 + 2
 - 1 + 2 + 3
 - 1 + 2 + 4
 - 1 + 2 + 5
 - 1 + 2 + 3 + 4 + 5
16. Which of the following is the most important defense mechanism for secretory IgA in oral cavity ? 2%
- Direct killing of bacteria.
 - Prevention of attachment.
 - Complement activation]
 - Opsonization.
 - Inactivation of bacterial enzymes.

選擇題答案欄

1. 2. 3. 4. 5. 6. 7. 8. 9. 10.

11. 12. 13. 14. 15. 16.

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王老師的考題

◆ 下列問答題請將答案直接寫於試題下方之空白處

1. Describe the importance of Candida spp in the oral infection. 5%

1. Candida albicans
2. Candida glabrata
3. Candida tropicalis
4. Candida krusei
5. Candida lusitana
6. Candida guilliermondii
7. Candida lusitana
8. Candida lusitana
9. Candida lusitana
10. Candida lusitana

2. Describe 2 mechanisms (indirect) that may be involved the pathogenesis of periodontal disease caused by herpesviruses. 7%

1. Herpesviruses
2. Herpesviruses
3. Herpesviruses
4. Herpesviruses
5. Herpesviruses
6. Herpesviruses
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8. Herpesviruses
9. Herpesviruses
10. Herpesviruses

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- (2%)
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