

## 臺灣綜合大學系統 105 學年度學士班轉學生聯合招生考試試題

科目名稱	動物結構與功能	類組代碼	B08
		科目碼	B0891
※本項考試依簡章規定各考科均「不可以」使用計算機		本試題共計	3 頁
<p>一、生理學部份(50分)：</p> <p>I. 選擇題(每題 2 分,共 22 分) 單選題</p> <p>1. Which of the following intracellular or plasma membrane proteins requires Ca<sup>2+</sup> for full activity?  (A) calmodulin  (B) janus kinase (JAK)  (C) cAMP-dependent protein kinase  (D) guanylyl cyclase</p> <p>2. Which correctly pairs an ECG phase with the cardiac event responsible?  (A) P wave: depolarization of the AV node  (B) P wave: depolarization of the ventricles  (C) T wave: repolarization of the atria  (D) QRS wave: depolarization of the ventricles</p> <p>3. Which of the following is a component of the renal response to metabolic acidosis?  (A) reabsorption of H<sup>+</sup>  (B) secretion of HCO<sub>3</sub><sup>-</sup> into the tubular lumen  (C) secretion of ammonium into tubular lumen  (D) carbonic anhydrase-mediated production of HPO<sub>4</sub><sup>2-</sup></p> <p>4. Untreated type 1 diabetes mellitus is characterized by  (A) age-dependent onset (only occurs in adults)  (B) higher-than-normal plasma insulin concentration  (C) decreased sensitivity of adipose and skeletal cells to insulin  (D) loss of body fluid due to increased urine production</p> <p>5. Which is not a symptom of Cushing's disease?  (A) goiter  (B) suppressed immune function  (C) hyperglycemia  (D) bone loss</p> <p>6. Which of the following is an opsonin?  (A) IL-2  (B) C3b protein  (C) C1 protein  (D) C-reactive protein</p> <p>7. Which of the following is true about pepsin?  (A) Pepsin is most active at high pH.  (B) Pepsin accelerates fat digestion.  (C) Pepsin accelerates protein digestion.  (D) Most pepsin is released directly from chief cells.</p>			

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<p>8. Which of the following contains blood with the lowest oxygen content?  (A) left atrium  (B) right ventricle  (C) pulmonary veins  (D) systemic arterioles</p> <p>9. Hematocrit is increased  (A) when a person has a vitamin B12 deficiency  (B) by an increase in secretion of erythropoietin  (C) when the number of white blood cells is increased  (D) in response to excess oxygen delivery to the kidneys</p> <p>10 Antidepressant medications most commonly target what neurotransmitter?  (A) acetylcholine  (B) dopamine  (C) histamine  (D) serotonin</p> <p>11. When a skeletal muscle fiber undergoes a concentric isotonic contraction,  (A) M lines remain the same distance apart.  (B) Z lines move closer to the ends of the A bonds.  (C) A bands become shorter.  (D) M lines move closer to the end of the A band.</p>			
<p><b>II. 簡答題 (共 28 分)</b></p>			
<p>1. What three hormones/factors do the kidneys secrete into the blood? (6 分)  2. List three kinds of glucose counterregulatory hormones (6 分)  3. In what two organs does major glycogen storage occur? (4 分)  4. What two processes contribute to immune tolerance? (4 分)  5. List the four types of stimuli that initiate most gastrointestinal reflexes. (8 分)</p>			
<p><b>二、 形態學部份(50 分)：</b></p>			
<p><b>III. 單選題(20分, 2分/題)</b></p>			
<p>1. 聲音在中耳的傳導方式是何種方式傳導？(A)空氣傳導；(B)電位傳導；(C)機械傳導；(D)液體傳導。</p> <p>2. 下列那一條血管不直接注入右心房？(A)肺靜脈(pulmonary v.); (B)上腔靜脈(superior vena cava); (C)冠狀竇(coronary sinus); (D)下腔靜脈(inferior vena cava)。</p> <p>3. 細胞內負責處理、分類及包裝蛋白質的胞器(organelle)是：(A)中心體(centrosome); (B)粒線體(mitochondrion); (C)核糖體(ribosome); (D)高爾基體(Golgi apparatus)。</p>			

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<p>4. 下列何者具有單層柱狀上皮(simple columnar epithelium)? (A)血管上皮; (B)小腸上皮; (C)膀胱上皮; (D)耳下腺腺管上皮。</p> <p>5. 腦下垂體窩(Hypophyseal Fossa)位於下列那一塊骨頭上? (A)篩骨(ethmoid bone); (B)顳骨(temporal bone); (C)蝶骨(sphenoid bone); (D)枕骨(occipital bone)。</p> <p>6. 進行腰椎穿刺(lumbar puncture)時主要是由下列何處抽取腦脊髓液(cerebrospinal fluid)? (A)硬膜外腔(epidural space); (B)硬膜下腔(subdural space); (C)蛛網膜下腔(subarachnoid); (D)脊髓中央管(central canal of spinal cord)。</p> <p>7. 迫尿肌(Detrusor m.)位於：(A)輸尿管壁; (B)膀胱壁; (C)泌尿生殖橫膈; (D)尿道壁。</p> <p>8. 腕關節(carpal joint)可做屈、伸、內收及外展運動，其關節型式為：(A)球窩關節(ball and socket joint); (B)鞍狀關節(saddle joint); (C)車軸關節(pivot joint); (D)橢圓關節(Ellipsoidal joint)。</p> <p>9. 培氏斑(Peyer's patches)常出現在：(A)十二指腸(duodenum); (B)空腸(jejunum); (C)迴腸(ileum); (D)盲腸(cecum)。</p> <p>10. 膝反射(patellar reflex)主要檢測下列那條神經? (A)閉孔神經(obturator n.); (B)股神經(femoral n.); (C)外側股皮神經(lateral femoral cutaneous n.); (D)坐骨神經(sciatic nerve)。</p> <p>IV. 填充題(10 分, 2 分/空格)：請於答案卷作答，於本試題紙上作答者，不予計分。</p> <p>1. 頸靜脈孔(jugular foramen)通過的構造包含內頸靜脈(internal jugular vein)、_____、_____及副神經(CN XI)等構造。</p> <p>2. 讓肘關節(elbow joint)伸張的肌肉包含_____及_____，它們由_____神經支配。</p> <p>V. 簡答題(20 分)</p> <p>1. 請列出腹主動脈(abdominal aorta)的”不”成對分枝?(8 分)</p> <p>2. 請條列出那些腦神經具有副交感功能?並各列舉一項其支配之器官。(12 分)</p>			