

私立臺北醫學院 90 學年度第 1 學期 期中 考試 命題 紙

保
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系級	科	授課教師	考試日期	學號	姓名
醫學系	生物學	陳月明	91年1月17日第 節		

※①請注意本試題共 4 張。如發現頁數不足及空白頁或缺印，應當場請求補齊，否則缺少部份概以零分計。
 ②每張試題務必填寫(學號)、(姓名)。

- Which is not a connective tissue? (a) adipose tissue. (b) blood (c) cartilage (d) bone (e) others
- A coiled tube stores sperm for their motility development and fertilizing ability called (a) vas deferens (b) scrotum (c) ejaculatory duct (d) epididymis (e) seminal vesicle
- A muscular ring regulates the passage of food out of stomach and into the small intestine named (a) esophageal sphincter (b) pyloric sphincter (c) stomach sphincter (d) digestive muscle (e) others
- Which is the opening of esophagus and trachea? (a) larynx (b) tongue (c) pharynx (d) epiglottis (e) others
- Which hormone is produced to induce oxytocin receptors on uterus before labor? (a) oxytocin (b) prostaglandins (c) estrogen (d) FSH (e) LH
- Pepsinogen is an inactive enzyme and will be activated initially by (a) HCl (b) pepsin (c) pepsinogen (d) mucous (e) others
- Which enzyme is not involved in digestion of proteins to amino acids in the small intestine? (a) trypsin (b) chymotrypsin (c) aminopeptidase (d) carboxypeptidase (e) others
- Which is a correct digestion sequence of a ruminant mammal? (a) rumen, reticulum, omasum, abomasum (b) rumen, omasum, reticulum, abomasum (c) omasum, reticulum, rumen, abomasum (d) omasum, rumen, reticulum, abomasum
- Which is not an essential amino acid? (a) Tryptophan (b) Methionine (c) Threonine (d) Lysine (e) Others
- Which is not correct for LDLs and HDLs? (a) LDLs levels correlated positively to develop high blood pressure (b) HDLs are cholesterol scavenging carriers (c) Saturated fats increase LDLs levels and unsaturated fats increase HDLs levels in blood (d) Increasing LDLs and reducing HDLs low the risk of cardiovascular disease (e) Others
- Which is not mediated by countercurrent exchange? (a) Gas exchange in gills. (b) Gas exchange of a bird. (c) Tracheal system of insects. (d) Gases exchange in human fetus. (e) Thermal regulation in white shark.
- Why hyperventilation disrupts the control of breathing? (a) decreasing O₂ in blood (b) increasing CO₂ in blood (c) increasing O₂ in blood (d) decreasing CO₂ in blood (e) others
- How many molecules of oxygen can be carried by a hemoglobin? (a) 1 (b) 2 (c) 3 (d) 4 (e) 5

系級	科目	授課教師	考試日期	學號	姓名
一	保健營養系(生物)	陳孝川等	91年1月12日第 節		
※①請注意本試題共 4 張。如發現頁數不足及空白頁或缺印，應當場請求補齊，否則缺少部份概以零分計。 ②					

14. Which factor causes the newborn to take its first breath? (a) CO₂ (b) O₂ (c) neurotransmitter (d) hormone (d) glucose
15. Which blood vessel conveys O₂-poor blood? (a) aorta (b) pulmonary veins (c) pulmonary arteries (d) arteriole (e) others
16. How long the atria are relaxed during a cardiac cycle of 0.8 sec. (a) 0.7 (b) 0.6 (c) 0.5 (d) 0.4 (e) others
17. An elimination mechanism that antibody molecules link dissolved antigen molecules together and removed them by phagocytosis named (a) neutralization (b) agglutination (c) precipitation (d) complement activation (e) others
18. Allergies are abnormal sensitivities to surrounding antigens. Which blood cell is activated during an allergic reaction? (a) neutrophil (b) macrophage (c) eosinophil (d) master cell (e) basophil
19. Which section of nephron is only located at the cortex of kidney? (a) loop of henle (b) proximal tubule (c) distal tubule (d) ureter (e) others
20. Which is a steroid hormone? (a) estrogens (b) calcitonin (c) luteinizing hormone (d) epinephrine (e) oxytocin
21. Blood clots plug formed when blood vessels are injured. Which is not correct in the blood clot formation. (a) platelets and plasma proteins are activated when injured. (b) clotting factors are released from platelets and conversion of thrombin to prothrombin. (c) conversion of fibrinogen to fibrin to trap blood cells and form a fibrin clot. (d) defects in clotting mechanism is life threatening. (e) others
22. Which artery is important for the occurrence of hear attack? (a) aorta (b) inferior vena cava (c) pulmonary artery (d) superior vena cava (e) coronary arteries
23. Contraction of precapillary sphincters make the blood flow to (a) arteries (b) vein (c) arterioles (d) venules (e) capillary bed
24. Which hormone is produced in the posterior pituitary? (a) oxytocin. (b) prolactin. (c) endorphins (d) TSH (e) ACTH
25. Which channel is opening in a resting neuron? (a) Na⁺ (b) K⁺ (c) Cl⁻ (d) Ca²⁺ (e) others

系 級	科 目	授 課 教 師	考 試 日 期	學 號	姓 名
陳一	生物學	陳子明	91 年 1 月 17 日 第 節		

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 ②答題時請注意試卷背面有無缺印、姓名。

26. Why a brief overshoot appeared in the action potential? (a) K⁺ channels open slowly (b) K⁺ channels open quickly (c) Na⁺ channels close slowly (d) Na⁺ channels open quickly (e) others

27. Which is not the function of parasympathetic division in human? (a) constrict pupil (b) inhibit heart beating (c) stimulate erection (d) stimulate glucose release (e) stimulate urination

28. Which fiber connects the cerebral hemispheres? (a) corpus callosum (b) purkinje fiber (c) actin (d) myosin (e) others

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8.	9.	10.	11.	12.	13.	14.
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22.	23.	24.	25.	26.	27.	28.

每題 3 分

() 1. The _____ in endodermal cell walls forces water and solutes that entered roots to move through the cells, not around them. (a) cutin strip (b) Casparian strip (c) lignin strip (d) cellulose strip.

() 2. Water evaporation from plant parts is called _____. (a) translocation (b) transpiration (c) expiration (d) tension.

() 3. Mycorrhizae enhance plant nutrition mainly by
 (a) converting atmospheric nitrogen to ammonia.
 (b) stimulating the development of root hairs
 (c) enabling the roots to parasitize neighboring plants
 (d) absorbing water and minerals through the fungal hyphae
 (e) providing sugar to the root cells, which have no chloroplasts of their own.

() 4. Buds and sprouts often form on tree stumps. Which of the following hormones would you expect to stimulate their formation
 (a) gibberellins
 (b) abscisic acid
 (c) auxin
 (d) ethylene
 (e) cytokinins

() 5. During winter or periods of drought, which of the following plant hormones inhibits growth and seed germination? (a) ethylene (b) abscisic acid (c) gibberellin (d) auxin (e) cytokinin.

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私立臺北醫學院 90 學年度第 1 學期 期中 考試 命 題紙

系 級	科 目	授 課 教 師	考 試 日 期	學 號	姓 名
第一	生物學	薛柏樑	91年1月17日第 節		
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解釋名詞

1. Biosphere
2. Habitat
3. Density-independent Factor
4. Age-structure Diagram
5. Gause's Competitive Exclusion Principle
6. Camouflage
7. Mutualism
8. Associative Learning
9. Dominance Hierarchy
10. Courtship Rituals