

系 級	科 目	授 課 教 師	考 試 日 期	學 號	姓 名
藥 劑	普通生物學	梁文利	92 年 1 月 15 日 第 一 節		

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藥(II)一生物學考題

選擇題(每題 1%，共 24 分)，請將答案寫在答案欄內。

- 古生代末期(約 2.8 億年前)地球上的植物霸主為①藍綠藻②苔蘚類③蕨類④裸子類植物
- 下列質體中具有合成澱粉及蛋白質作用功能的為①葉綠體(chloroplast)②有色體(chromoplast)③白色體(leucoplast)④皆不具此能力
- 植物細胞內的晶體成分主要為①Ca②Na③K④Mg 的鹽類成分
- 細胞分裂期中，合成紡錘體等結構成分的時期為① G1 ② S ③ G2 ④ M
- 下列組織細胞中具物質傳遞或儲存功用的是①皮層細胞②石細胞③木栓細胞④厚角細胞
- 現在盛產的橘子表皮上的油室屬於①儲藏組織②輸導組織③保護組織④分泌組織
- 下列成分何者必參予葉綠素構成成分?① Ca ② Fe ③ Zn ④ Mo
- 藻類植物外表具有黏滑性乃因其細胞壁含有①木質素②果膠質③黏肽糖④纖維素
- 具組織分化的藻類為①藍藻②綠藻③紅藻④褐藻
- 黏菌細胞在何時期會固著生活?①生長期②營養期③繁殖期④皆為固著生活
- 真菌植物中不具有菌絲結構的為①青黴菌②酵母菌③蘑菇④香菇
- 繁殖時開始有精子及卵分化的為①褐藻②蕈類③苔蘚類④蕨類
- 有關世代交替的敘述何者有誤?①細菌不具世代交替②藻類的世代交替以孢子世代為優勢③苔蘚類以配子世代為優勢④蕨類以孢子世代為優勢
- 有關蕨類植物何者敘述為正?①具有根莖葉的分化②葉形屬於羽狀複葉③具有精子及卵子之分化④繁殖以孢子形式進行
- 種子植物之敘述何者為誤?①為地球上最優勢的植物群②有繁殖器官及營養器官之分③葉具有光合作用為重要的營養器官④花可吸引動物協助進行傳粉為重要的繁殖器官
- 下列校園植物中葉片屬於對生的植物為①榕②山茶花③楓④槭
- 校園植物中內具有複葉的植物為①鵝掌藤②雀榕③杜鵑④櫻
- 具有平行脈的校園植物為①白千層②榕樹③樟樹④杜鵑

系級	科目	授課教師	考試日期	學號	姓名
藥科	普通生物學	梁文訓	93年1月15日第 節		

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19. 為防止大氣產生污染時可以何種水果進行監測？①蕃茄 ②柳丁 ③草莓 ④香蕉
20. 下列植物變化屬於躲避不良環境的例子為 ①葉片上的角質化 ②植物體內含精油 ③形成針狀葉 ④縮短生活週期
21. 植物對環境污染的抗性研究中何者屬於躲避形式？①關閉氣孔 ②利用細胞內成分結合污染物 ③對污染物進行水解作用 ④改變基因
22. 長日植物一般在何時開花？①春 ②夏 ③秋 ④冬
23. 春化作用主要採用何種效應進行？①日照 ②溼度 ③溫度 ④荷爾蒙
24. 下列何種因素會影響種子透氣性？①環境溼度 ②子葉中含有機酸 ③胚未成熟 ④種皮厚度

答案欄：(每題 1%)

1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.

系 級	科 目	授 課 教 師	考 試 日 期	學 號	姓 名
藥 1 Y	普通生物學	陳 志 升	92 年 1 月 15 日 第 1 節		

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選擇題 (每題 1%)

- Study of the structure of an organism called (A) Physiology (B) Anatomy (C) Pharmacology (D) Pathology (E) Others
- Groups of cells with a common structure and function called (A) Tissue (B) Organ (C) Specific tissue (D) System (E) Others
- Which tissue of blood is? (A) Epithelial tissue (B) Connective tissue (C) Muscular tissue (D) Circulatory tissue (E) Others
- Which cell secretes collagen to form the cartilage? (A) Chondrocyte (B) Osteoblast (C) Fibroblast (D) Macrophages
- Which is the major fuel molecule for cells, and is an important aspect of homeostasis. (A) Glucose (B) Amino acid (C) Fatty acid (D) Fructose (E) Galactose
- Which hormone can promote the breakdown of glycogen and the release of glucose into the blood? (A) Insulin (B) Glucagon (C) Growth hormone (D) Estrogen (E) Others
- IF a person is in the condition of undernourishment, several biological phenomenon will occur except (A) Stored glycogen and fat will be used up (B) Proteins will be broken down (C) Muscle size will be increased (D) Brain will be protein-deficient (E) Others
- Which is not an essential amino acid in adult human? (A) Tryptophan (B) Methionine (C) Leucine (D) Lysine (E) Histidine
- Which is a deposit feeder? (A) mosquito (B) cat (C) earthworm (D) Whale
- Pepsin is an enzyme for protein hydrolysis in stomach. Which is not correct for action of pepsin? (A) The inactive form is pepsinogen (B) Pepsin can work in acid condition (C) HCl secreted by parietal cell converts pepsinogen to pepsin (D) A negative-feedback in the conversion of pepsinogen to pepsin in stomach (E) Others
- Which is not correct for circulatory system? (A) Squid is closed circulatory system (B) One atrium and one ventricle in fish heart (C) Amphibians have two atria and one ventricle for pulmocutaneous and systemic circulations (D) The ventricle in amphibians is O₂-rich blood (E) Crocodilians and birds have two atria and two ventricle.

臺北醫學大學 92 學年度第 1 學期 期中考試 (命題) 題紙

系級	科目	授課教師	考試日期	學號	姓名
醫1	普通生物學	陳彥州	92年1月15日第 節		

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12. Which is not correct for cardiac cycle? (A) Systole is contraction and diastole is relaxation phase (B) One complete cardiac cycle takes 0.8 sec (C) The period of atria systole is 0.4 sec. (D) The period of ventricle systole is 0.3 sec. (E) Others.
13. Which is not correct for the process of breathing? (A) The alternate inhalation and exhalation of air (B) Human ventilate by positive pressure breathing (C) The rib muscles and diaphragm relax in exhalation (D) The total surface of alveoli in humans is about 100 m² (E) Lung volume increases as a result of contraction of rib muscles and diaphragm
14. Which cell does not attack microorganisms but destroy virus-infected body cells or abnormal cancerous cells? (A) NK cells (B) Eosinophils (C) Monocytes (D) Macrophages (E) Mast cells
15. Which is not correct for inflammatory responses? (A) Damaged cells or bacteria release chemical signals (B) capillaries to dilate to become more permeable (C) Reduced local blood supply (D) Appearance of swelling, redness, and heat (E) Others
16. Which is not correct for HIV infection? (A) Decline in helper T cells (B) Causes AIDS (C) HIV's genome is RNA and reverse transcribed to DNA in cells (D) Extensive loss of humoral and cell-mediated immunity (E) Others
17. Which is not correct for the physiological functions of nitric oxide? (A) As a neurotransmitter (B) Causes vasorelaxation (C) Secreted by WBC to kill invaders (D) An inflammatory molecule (E) Others
18. Which hormone involves in the cause of gigantism? (A) Growth hormone (B) Oxytocin (C) ADH (D) Prolactin (E) ACTH
19. Which is not correct about the membrane potential of neurons? (A) Resting potential of neuron is -70 mV. (B) Potassium channels are opened and sodium channel is closed in rest. (C) Potassium ion is more concentrated outside the cells than inside. (D) Sodium-potassium pumps help maintaining the resting potential of membrane. (E) Action potential is induced primary by sodium channels open and potassium channels are closed.

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藥 科	普通生物學	陳 彥 中	97年 1 月 15 日 第 _____ 節		

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20. Which is not correct about the nervous systems? (A) Na⁺-K⁺ pump transports 2Na⁺ outside and 3K⁺ inside. (B) Motor output is the conduction of signals form integration center to effectors. (C) Na⁺ and Cl⁻ are major existing in extracellular fluid. (D) PNS involved sensory input and motor output. (E) CNS involved brain and spinal cord.
21. Which is not correct in glucose homeostasis? (A) Glucose homeostasis is regulated by insulin and glucagon (B) Insulin is produced by cells and glucagon is produced by cells in pancreas. (C) Rising blood glucose level induced insulin release and glycogen synthesis. (D) Declining blood glucose level induced glucagons production and glycogen breaks down. (E) Both insulin and glucagons are antagonists.
22. Which hormone is not produced in pituitary gland? (A) Oxytocin. (B) Prolactin. (C) FSH. (D) PTH. (E) ACTH
23. Which is incorrect for reproduction? (A) In asexual reproduction, no fusion of sperm and egg and gene all come from one parent (B) In sexual reproduction, fusion of diploid gametes in the formation of offspring (C) Ovum is a female nonmotile gamete (D) Sexual reproduction increases genetic variation among offspring (E) Others
24. Which is not a type of asexual reproduction? (A) Budding (B) Fragmentation (C) Gemmules (D) Fission (E) Fertilization
25. An individual reverses its sex during its lifetime called sequential hermaphroditism. What name we call an individual under female first sequential hermaphroditism? (A) Protogynous (B) Protozoa (C) Protandrous (D) Postmale (E) Postfemale

臺北醫學大學 92 學年度第 1 學期 期中考試 (命題) 題紙

系級	科目	授課教師	考試日期	學號	姓名
1Y	普通生物學	陳齊州	93年1月15日第 節		

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填充題 (每題 1.5%)

1. A cluster of nerve cell bodies within the PNS called 1
2. Glia cells are important in supporting the nervous system. Please write down 2 types of glia cells in CNS 2, 3
3. The resting potential of membrane is -70 mV. If the membrane potential becomes more negative than -70 mV, this condition is called 4. In contrast, the membrane potential becomes less negative than -70 mV called 5.
4. Please write down 2 ions which play important roles in producing action potential in neuron 6, 7
5. The impulse moves faster in myelinated neurons than that in unmyelinated neurons, Please describe the type of conduction in myelinated neuron 8 conduction.
6. Please write down 2 amino acids with inhibitory activity on neuronal transmission. 9, 10.
7. Chemical signals released by one organism especial female to influence the behavior of other individuals of the same species called 11
8. The external components of the reproductive system in human male are 12, 13. Ejaculation is to propel sperms from the 14 to the 15.
9. Please describe three phases of menstrual cycles 16, 17, 18
10. There are five hormones in the menstrual and ovarian cycles including gonadotropin, follicle stimulating hormone, luteinizing hormone, 19, 20.
11. Follicle stimulating hormone, parathyroid hormone, glucagons, growth factor, and calcitonin are important hormones in body. Please tell me which is a glycoprotein. 21
12. Please provide two examples of negative feedback reaction in body 22, 23.
13. Please describe the nitrogenous waste in fish 24.
14. There is no net movement of water between two solutions, we call these two solutions are 25.

臺北醫學大學 92 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
醫科	普通生物學	陳清林	93年1月15日第 節		

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15. Marine sharks reserve high concentrations of 26 and 27 in body fluids to lead to an osmolarity slightly higher than sea water.
16. Which hormone is important in regulating water balance and produced in hypothalamus and stored in and released from the pituitary gland? 28
17. RAAS is a complex circuit in homeostasis. A drop in blood pressure will trigger a release of renin to elevate the blood pressure. Would you write down two hormones will reduce the release of rennin in face of rising blood pressure. 29 , 30 .
18. Please write down two kinds of blood cells with class II MHC molecules in membrane. 31 , 32
19. There are five classes of immunoglobulins have been identified. Among them, which is the first circulating antibody in response to an antigen initially. 33
20. Rh factor can cause mother-fetus problems. Please write down the type of antibody induced by Rh factor. 34

選 擇 題 答 案								
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填充題

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29.	30.	31.	32.
33.	34.	35.	