

八十四學年度 輻射生物研究所 組碩士班研究生入學考試

科目 生理學 科號 3406 共 二 頁第 1 頁 *請在試卷【答案卷】內作答

I. Distinguish between the following terms (30 pt):

1. Oxygen debt & hypoxia
2. Leukocytosis & leukemia
3. Excretion & defecation
4. Renin & rennin
5. Gluconeogenesis & glycogenolysis
6. Vital capacity & total lung capacity
7. Enterokinase & cholecystokinin
8. Tetany & tonus
9. Oxyhemoglobin & reduced hemoglobin
10. Diastolic sound & systolic sound

II. Pairing (fill the parenthesis with one of a, b,k, l, 10 pt)

- () 1. kidney
- () 2. Adrenal cortex
- () 3. Pituitary (anterior lobe)
- () 4. Placenta
- () 5. Adrenal medulla
- () 6. Pituitary (intermediate lobe)
- () 7. Ovary
- () 8. Pineal gland
- () 9. Hypothalamus
- () 10. Pituitary (posterior lobe)

- a. Prolactin
- b. Melanotropin
- c. Secretin
- d. Melatonin
- e. Oxytocin
- f. Erythropoietin
- g. Corticotropin-releasing factor
- h. Epinephrine
- i. Dehydroepiandrosterone
- j. Enterocrinin
- k. Relaxin
- l. Adrenocorticotropic H.

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III. Answer the following questions (60 pt)

1. If you eat a piece of bread, where and how do its components be digested ?
2. Describe and discuss the mechanism of regulation in body temperature.
3. What causes the increase in the rate and depth of breathing during exercise? Why is such an increase necessary ?
4. Explain the mechanism that makes it possible for the kidney to produce a hypertonic urine.
5. Which vitamin influences night vision? Why do many people wear glasses?
6. Describe and discuss the lymphoid organs serve in developing and maintaining immunity.