

# 臺中健康暨管理學院

## 九十三年度大學部轉學招生考試試題紙



學系別	考試科目	考試日期	時間	備註
醫務管理學系二年級 生物科技學系(生物資訊組)二年級 生物科技學系(生物科技組)二年級	普通生物學	93.8.7	10:20-12:00	

一 選擇題 每題 3 分

1. What is a hypothesis?  
A) an observation B) a fact C) a theory D) a guess E) a tentative explanation
2. What compound directly provides energy for cellular work?  
A) C<sub>6</sub>H<sub>12</sub>O<sub>6</sub> B) fat C) DNA D) rubisco E) ATP
3. Which component of the following reaction is the enzyme?  
lactose + lactase + water + lactase → glucose + fructose  
A) lactose B) lactase C) glucose D) fructose E) water
4. A \_\_\_\_\_ is an example of an organism that can reproduce asexually.  
A) cat B) mouse C) dog D) human E) philodendron
5. The chromosomes of eukaryotic cells are found in the \_\_\_\_\_.  
A) nucleolus B) nucleus C) Golgi apparatus D) basal body E) centriole
6. What are alleles?  
A) heterologous chromosomes B) homologous chromosomes C) alternate phenotypes D) environmental factors that affect gene expression E) alternate forms of a gene
7. A true-breeding plant that produces yellow seeds is crossed with a true-breeding plant that produces green seeds to produce F<sub>1</sub> plants that have yellow seeds. What is the expected phenotypic ratio of seed color of the offspring of an F<sub>1</sub> X F<sub>1</sub> cross?  
A) 3:1 B) 1:2:1 C) 1:1 D) 2:1 E) 9:3:3:1
8. What name is given to the specific location of a gene on a chromosome?  
A) genotype B) phenotype C) allele D) locus E) chromaddress
9. In humans, the inheritance of \_\_\_\_\_ is best explained as being polygenic.  
A) blood type B) weight C) sickle-cell disease D) cystic fibrosis E) Huntington's disease
10. DNA and RNA are polymers of \_\_\_\_\_ monomers.  
A) fatty acid B) amino acid C) carbohydrate D) nucleotide E) nucleic acid
11. RNA contains \_\_\_\_\_, whereas DNA contains \_\_\_\_\_.  
A) nucleotides . . . nucleic acids B) cytosine . . . guanine C) adenine . . . guanine D) a deoxyribose sugar . . . a ribose sugar E) uracil . . . thymine
12. How many amino acids are common to all living systems?  
A) 20 B) 10 C) 15 D) 30 E) 25
13. How many nucleotides make up a reading frame?  
A) six B) one C) four D) three E) two
14. Viruses that infect bacteria are \_\_\_\_\_.  
A) enveloped viruses B) retroviruses C) emerging viruses D) proviruses E) phages
15. HIV is responsible for \_\_\_\_\_.  
A) TB B) PKU C) AIDS D) CPR E) STDs
16. In prokaryotes, what name is given to a unit that controls the turning on and off of a specific set of genes?  
A) operon B) promoter C) activator D) regulatory gene E) exon
17. Repressors bind to \_\_\_\_\_.  
A) promoters B) operators C) DNA polymerase D) RNA polymerase E) regulatory genes
18. What name is given to cancer-causing genes?  
A) oncogenes B) pathogenes C) homeotic genes D) regulatory genes E) canco genes
19. What is recombinant DNA?  
A) DNA that results from bacterial conjugation B) DNA that is produced as a result of crossing over C) DNA that carries genes from different organisms D) an alternate form of DNA that is the product of a mutation. E) DNA that carries a translocation
20. The similarity of the embryos of fish, frogs, birds, and humans is evidence of \_\_\_\_\_.  
A) convergent evolution B) diversifying selection C) common ancestry D) genetic drift E) analogy
21. The ultimate source of all variation is \_\_\_\_\_.  
A) genetic drift B) sexual recombination C) mutation D) sexual reproduction E) natural selection
22. What is pollen?  
A) a type of seed B) a sporophyte C) a female gametophyte D) a megaspore E) a male gametophyte
23. What does the term tetrapod mean?  
A) cold-blooded B) apelike C) egg-laying D) descended from fish E) having four limbs
24. Which of the following is not a major category of animal tissue?  
A) cardiac B) connective C) epithelial D) muscle E) nervous
25. Structure in the living world is organized at hierarchical levels. Which of the following choices lists several of these, from least inclusive to most inclusive?  
A) tissue, cell, organ system, organ, organism B) cell, organ, organ system, tissue, organism C) cell, organ system, tissue, organ, organism D) cell, tissue, organ, organ system, organism E) cell, organism, organ, organ system, tissue

二 解釋名詞 每題 5 分

1. promoter
2. homeostasis
3. metamorphosis
4. diploid
5. coelom

※試題請隨卷繳回