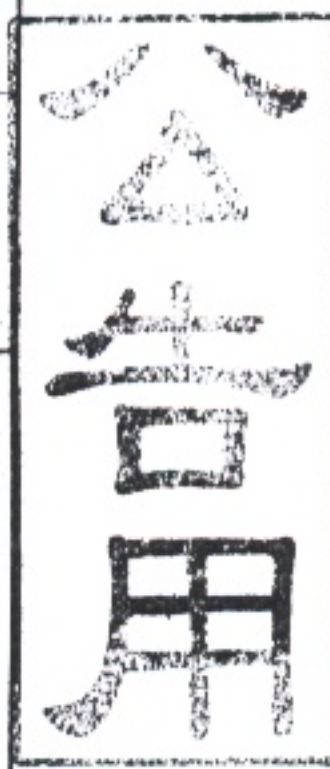


臺中健康暨管理學院

九十三學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

- What is a hypothesis?
A) an observation B) a fact C) a theory D) a guess E) a tentative explanation
- What compound directly provides energy for cellular work?
A) C₆H₁₂O₆ B) fat C) DNA D) rubisco E) ATP
- 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
- A _____ is an example of an organism that can reproduce asexually.
A) cat B) mouse C) dog D) human E) philodendron
- The chromosomes of eukaryotic cells are found in the _____.
A) nucleolus B) nucleus C) Golgi apparatus D) basal body E) centriole
- 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
- A true-breeding plant that produces yellow seeds is crossed with a true-breeding plant that produces green seeds to produce F₁ plants that have yellow seeds. What is the expected phenotypic ratio of seed color of the offspring of an F₁ X F₁ cross?
A) 3:1 B) 1:2:1 C) 1:1 D) 2:1 E) 9:3:3:1
- What name is given to the specific location of a gene on a chromosome?
A) genotype B) phenotype C) allele D) locus E) chromaddress
- 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
- DNA and RNA are polymers of _____ monomers.
A) fatty acid B) amino acid C) carbohydrate D) nucleotide E) nucleic acid
- 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
- How many amino acids are common to all living systems?
A) 20 B) 10 C) 15 D) 30 E) 25
- How many nucleotides make up a reading frame?
A) six B) one C) four D) three E) two
- Viruses that infect bacteria are _____.
A) enveloped viruses B) retroviruses C) emerging viruses D) proviruses E) phages
- HIV is responsible for _____.
A) TB B) PKU C) AIDS D) CPR E) STDs
- 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
- Repressors bind to _____.
A) promoters B) operators C) DNA polymerase D) RNA polymerase E) regulatory genes
- What name is given to cancer-causing genes?
A) oncogenes B) pathogenes C) homeotic genes D) regulatory genes E) canco genes
- 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
- 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
- The ultimate source of all variation is _____.
A) genetic drift B) sexual recombination C) mutation D) sexual reproduction E) natural selection
- What is pollen?
A) a type of seed B) a sporophyte C) a female gametophyte D) a megaspore E) a male gametophyte
- What does the term tetrapod mean?
A) cold-blooded B) apelike C) egg-laying D) descended from fish E) having four limbs
- Which of the following is not a major category of animal tissue?
A) cardiac B) connective C) epithelial D) muscle E) nervous
- 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

- promoter
- homeostasis
- metamorphosis
- diploid
- coelom