

單選 (共 20 題選擇題, 每題 5 分)

1. Cancer derived from connective tissue fibroblasts is usually named
 - a) adenoma
 - b) leukemia
 - c) lymphoma
 - d) sarcoma
2. Both Mrs. Lee's youngest brother and her son have G-6PD deficiency, which is an X-linked recessive disease. What is the chance that Mrs. Lee being a carrier?
 - a) 100%
 - b) 50%
 - c) 25%
 - d) 5%
3. In the above case, what is the percentage of chance that Mrs. Lee's daughter being a carrier?
 - a) 100%
 - b) 50%
 - c) 25%
 - d) 5%
4. A patient with chronic renal failure has five people who are willing to serve as donors for a kidney transplant for her: her husband, identical twin, half-brother, sister, and son. Based on the likelihood of HLA identity, the correct arrangement of individuals in order of decreasing suitability as a kidney transplant donor is
 - a) twin, husband, sister, son, half-brother
 - b) husband, twin, sister, son, half-brother
 - c) twin, son, sister, husband, half-brother
 - d) twin, sister, son, half-brother, husband
5. A good screening program should have all of the following characteristics EXCEPT
 - a) the overall cost of having the program must be substantially less than the cost of not having the program
 - b) the program must include provision for professional education regarding the screening
 - c) the program must incorporate an effective mechanism to follow up abnormal results
 - d) the disease for which patients are screened must be curable if appropriately treated
6. Assuming that body weight in a particular population is normally distributed with a mean of 81.5Kg and a standard deviation of 4.5Kg, which interval contains approximately 95% of the population?
 - a) 63-100 Kg
 - b) 68-95 Kg
 - c) 67-94 Kg
 - d) 72-91 Kg
7. The mechanism for anemia in patients with chronic renal failure is
 - a) decrease production of serum albumin
 - b) decrease production of coagulation factors
 - c) decrease production of erythropoietin
 - d) decrease production of erythroblasts

8. The following infectious disease is now preventable with vaccination except one
- Chicken Pox
 - Hepatitis B
 - Escherichia coli
 - small pox
9. Which statement about chromosomal disorders is correct ?
- are due to point mutation of DNA
 - usually result in enzyme deficiency
 - patient's son will have 50% chance inherit the disorder
 - balanced translocation carriers may have normal children
10. A 25 year-old woman is brought to the emergency department because of diabetes ketoacidosis. She presented with rapid and deep respiration. Select the most likely pattern of her arterial blood gas
- | | PH | PO ₂ mmHg | PCO ₂ mmHg | HCO ₃ Meg/L |
|----|------|----------------------|-----------------------|------------------------|
| a) | 7.50 | 56 | 33 | 25 |
| b) | 7.15 | 98 | 31 | 11 |
| b) | 7.30 | 56 | 80 | 38 |
| c) | 7.40 | 100 | 24 | 18 |
11. For patients with familial hypercholesterolemia, the risk of which disease is increased significantly?
- colon cancer
 - coronary heart disease
 - hypertension (high blood pressure)
 - diabetes mellitus
12. Succinylcholine is a muscle relaxant drug widely used during anesthesia. For people who have impaired activity of cholinesterase are unable to degrade succinylcholine and will develop serious respiration problem after operation. Mr. Wang previously had difficulty breathing during an operation. All of the following statement regarding his condition are correct EXCEPT.
- a biochemical test should be should be performed to assess his ability to breakdown succinylcholine
 - the absence of a family history of this problem is likely to exclude this as a genetic problem
 - close postoperative support may be necessary
 - knowledge of this history might alter the drug used in anesthesia
13. The following hormones are involved in the regulation of blood pressure except one?
- angiotensin
 - aldosterone
 - leptin
 - renin
14. For hepatocellular carcinoma, the most common liver cancer in Taiwan, which one is the tumor marker that can be detected in the blood of these patients?
- α -fetoprotein
 - cortisol
 - acid phosphatase
 - calcitonin

- 15 Major events of early embryogenesis include which one of the following occurrences?
- a) establishment of clonal cell lineages with predetermined fates
 - b) segmentation
 - c) amplification of preformed maternal messenger RNA
 - d) activation of proto-oncogenes

16-20 題為配合題

- #A In a study about congenital viral infection, match each statement with the kind of study design it mostly describes
16. () Compare the frequency of maternal exposure to a viral agent during pregnancy between two groups of children, of which one has congenital anomalies and the other does not
17. () The information provided is particularly valuable in establishing a characteristic pattern of congenital anomalies produced by maternal exposure to a given virus during pregnancy
18. () May be useful in raising suspicion of a viral teratogenic effect, but associations observed are usually not causal
- a) Case report
 - b) Clinical series
 - c) Double-blind controlled clinical trial
 - d) Case-control study
- #B Match each of the following methods for treatment of metabolic diseases with the appropriate situation
19. () Dietary restriction
20. () Activation of the defective metabolic pathway
- a) When the pathology is produced by accumulation of a toxic metabolite
 - b) When the pathology is produced by absence of an essential product
 - c) a+b