BIOLOGY

BOOKS - KVPY PREVIOUS YEAR

MOCK TEST 5

Exercise

1. If you needed to take a blood sample during the time in a woman's menstrual cycle when the concentration of her gonadotropic

hormones would be at their lowest levels, which of the following days on average would be the best choices for sampling?

A. 1 to 5

B. 5 to 10

C. 10 to 15

D. 20 to 25

Answer:

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2. Bence-Jones protein is:

A. A vaccine

B. An antigen

C. An immunoglobulin light chain often found mpatients with myeloma

D. Both (b) and (c)

Answer:

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3. During the early stages of alcoholic fermentation, there is a high rate of growth of yeast. After some time, the rate decreases. Which of the following conditions in the culture medium is least likely to have caused this?

A. Depletion of glucose

B. Depletion of oxygen

C. Depletion of mineral salts

D. Accumulation of waste products

Answer:

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4. Which is not correct for cyclic photophospho- rylation?

A. No O_2 is given off

B. No water is consumed.

C. No $NADPH_2$ is synthesised.

D. PS I and PSII are involved.

Answer:

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5. Which of the following taxonomic aid provides information for the identification of names of species found in an area?

A. Monograph

B. Manual

C. Flora

D. Periodical

Answer:

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6. The two polypeptides of human insulin are linked together by

A. Hydrogen bonds

B. Phosphodiester bond

C. Covalent bond

D. Disulphide bridges

Answer:

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7. Which one of the following statements is correct regarding sexually Transmitted Diseases (STD)

A. The chances of a 5 year boy contacting a STD are very little.

B. A person may contact syphilis by sharing milk with one already suffering from the

disease.

C. Haemophilia is one of the STDs.

D. Genital herpes and sickle cell anaemia both are STDs.

Answer:

8. Substances which prevent coagulation by removal of calcium ions are

A. ethylene diamine tetraacetate (EDTA) and citrate or oxalate of potassium orsodium

B. vitamin K

C. protamines

D. Both (b)and (c)

Answer:

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9. Suppose that in sheep, a dominant allele (B) produces black hair and a recessive allele (b) produces white hair. If you saw a black sheep, you would be able to identify

A. its phenotype for hair colour.

B. its genotype for hair colour.

C. the genotypes for only one of its parents.

D. the genotypes for both of its parents.

Answer:

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10. Flocculation or coagulation of protoplasm is the

A. interchangeability between sol and gel states.

B. ability to scatter that beam of light.

C. erratic zig-zag movement of protoplasmic particles.

D. ability of protoplasm to increase in size when they lose charges.

Answer:

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11. Which of the following is maximum in chloroplast ?

A. RuBP carboxylase

B. Hexokinase

C. Phosphatase

D. Nuclease

Answer:

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12. For which of the following diseases, there is preventive vaccine?

A. AIDS

B. Hepatitis B

C. Syphilis

D. Gonorrhoea

Answer:

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13. Red hair is a recessive trait in humans. In a randomly mating population in Hardy-Weinberg equilibrium, approximately 9% of

individuals are red-haired. What is the frequency of heterozygotes?

A. 0.81

B. 0.49

C. 0.42

D. 0.18

Answer:

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14. In an experiment, the aleurone layer of oat seeds is destroyed chemically. It is observed that such seeds fail to germinate. Which of the following treatments will be useful to trigger the germination?

A. Soaking the seeds in water containing glucose for long time.

B. Soaking the seeds in low concentration of abscisic acid.

C. Treating the seeds with amylase enzyme.

D. Treating the seeds with gibberellins.

Answer:

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15. Different cells have different sizes. Arrange the following in an ascending order of their size.

I. Mycoplsma.

II. Ostrich eggs.

III. Human RBC.

IV. Bacteria

A. (i),(ii),(iii),(iv)

B. (i),(iv),(iii),(ii)

C. (ii),(iv),(i),(iii)

D. (iv),(iii),(ii),(i)

Answer:

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