

MHT CET 2024 Biology Memory Based Question Paper PDF

Biology

1. Phenylketonuria is caused by the deficiency of which enzyme?
 - (a) Phenylalanine hydroxylase (PAH)
 - (b) Tyrosinase
 - (c) Homogentisic acid oxidase
 - (d) Valine transaminase
2. Arrange the meninges in order from outer to inner:
 - (a) Pia mater, Arachnoid, Dura mater
 - (b) Dura mater, Arachnoid, Pia mater
 - (c) Arachnoid, Dura mater, Pia mater
 - (d) Dura mater, Pia mater, Arachnoid
3. Which hormones stimulate the production of pancreatic juice and bicarbonate?
 - (a) Gastrin and Insulin
 - (b) Cholecystokinin (CCK) and secretin
 - (c) Insulin and Glucagon
 - (d) Angiotensin and Epinephrine
4. Arrange the following menstrual phases in the correct chronological order:
 - (a) Menstruation, Ovulation, Follicular phase, Luteal phase
 - (b) Follicular phase, Menstruation, Ovulation, Luteal phase
 - (c) Menstruation, Follicular phase, Ovulation, Luteal phase
 - (d) Luteal phase, Ovulation, Follicular phase, Menstruation
5. The last electron acceptor in the Electron Transport System (ETS) is:
 - (a) CO_2
 - (b) Cytochrome a_3
 - (c) Oxygen (O_2)
 - (d) NADH
6. Which of the following reverses the apical dominance?
 - (a) Auxin
 - (b) Cytokinin
 - (c) Gibberellin
 - (d) Ethylene
7. From which of the following does the female gametophyte NOT develop?
 - (a) Megaspore mother cell
 - (b) Nucellus
 - (c) Megaspore

- (d) Microspore mother cell
8. Inorganic phosphate is involved in which step of respiration?
- (a) Glycolysis
 - (b) Krebs's Cycle
 - (c) Link Reaction
 - (d) Fermentation

Physics

1. A vessel completely filled with water has holes A and B at depths h and $3h$ from the top respectively. Hole A is a square of side L and B is a circle of radius r . If the water flowing out per second from both the holes is the same, then L is equal to:
- (a) $3^{1/4}\pi^{1/2}r$
 - (b) $3^{1/2}\pi^{1/4}r$
 - (c) $3^{1/4}\pi r$
 - (d) $3\pi^{1/2}r$
2. A cylinder of fixed capacity 67.2 litres contains helium gas at STP. The amount of heat needed to rise the temperature of the gas in the cylinder by 20°C is:
- (a) 700 J
 - (b) 747.9 J
 - (c) 825.4 J
 - (d) 695.2 J

Chemistry

1. Arrange the affinity of Hemoglobin (Hb) towards CO , CO_2 , and O_2 in increasing order:
- (a) $\text{CO} < \text{CO}_2 < \text{O}_2$
 - (b) $\text{O}_2 < \text{CO}_2 < \text{CO}$
 - (c) $\text{CO}_2 < \text{O}_2 < \text{CO}$
 - (d) $\text{O}_2 < \text{CO} < \text{CO}_2$
2. Boron has two isotopes with atomic masses 10 and 11. If its average atomic mass is 10.81, the abundance of the lighter isotope is:
- (a) 81%
 - (b) 19%
 - (c) 50%
 - (d) 25%