

CBT CLASS IX SCIENCE APRIL(2024)

Q1 In pasteurisation, milk is boiled at

- (a) 70 C for 15-30 seconds
- (b) 70 C for 10-20 seconds
- (c) 70 C for 10-30 seconds
- (d) None of the above

Answer: (a) 70 C for 15-30 seconds

Feedback : Pasteurization or pasteurisation is a process in which packaged and non-packaged foods (such as milk and fruit juice are treated with mild heat (<100 °C) to eliminate pathogens and extend shelf-life. The process is intended to reduce spoilage organisms and eliminate vegetative bacteria but not bacterial spores. Today, pasteurization is used widely in the dairy industry and other food processing industries to achieve food preservation and food safety.

Q2 Which of the following is not a constituent of petroleum?

- (a) Paraffin Wax
- (b) Lubricating Oil
- (c)Petrol
- (d) Coke

Answer: (d) Coke

Feedback: The different constituents of petrol are: LPG, lubricating oil, paraffin wax, diesel, petrol, and kerosene.

Q3 Sets of reproductive terms are given below. Choose the set that has an incorrect combination.

- (a) sperms, testis, sperm duct, penis
- (b) menstruation, egg, oviduct, uterus
- (c) sperm, oviduct, egg, uterus
- (d) ovulation, egg, oviduct, uterus

Answer : (c) sperm, oviduct, egg , uterus

Feedback : All the other options have terms related to either male or female reproductive system while option (c) has terms related to both male and female reproductive system. Hence option (c) has incorrect combination.

Q4 A girl child is formed if ova fuses with sperm containing

- (a) sperm containing X chromosome
- (b) sperm containing Y chromosome
- (c) Both (a) and (b)
- (d) None of these

Answer: (a) sperm containing X chromosome

Feedback : Both males and females carry two sets of sex chromosome.

Male has one X and one Y (XY) sex chromosome in which both are active

Female has both X (XX) sex chromosome in which one is active.

All children will inherit an X chromosome from their mother, despite whether they are a boy or girl.

Thus, the sex of the children will be determined by the type of chromosome inherited from their father.

A child who inherits Y chromosome will be a boy and who inherits X chromosome will be a girl.

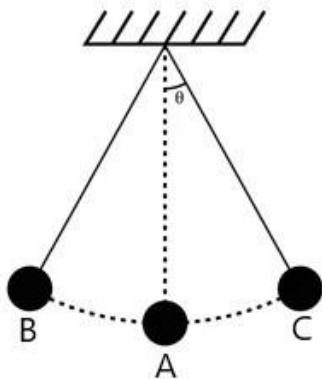
Q5 A force between two or more objects generates when they

- (a) interact with each other
- (b) attract each other
- (c) repel each other
- (d) both (a) and (b)

Answer: (a) interact with each other

Feedback: Force is an important concept as it influences motion. It can be defined as an interaction that changes the motion of an object if unopposed. But the simple definition of force is that it is the push or pull experienced by any object.

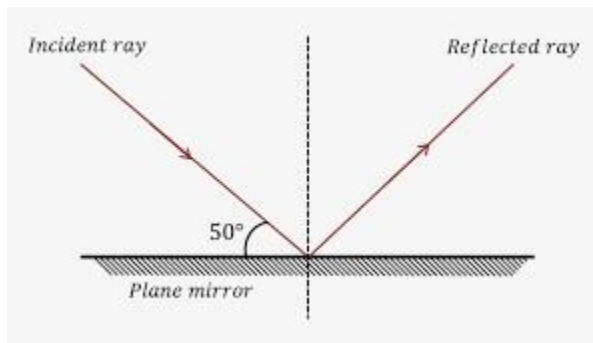
Q6 In the given image , the time period will be calculated as the time taken by the pendulum during



- (a) the single movement of the pendulum from B position to C position
- (b) the single movement of the pendulum from A position to C position
- (c) the single movement of the pendulum from A position and returning back to A position
- (c) the single movement of the pendulum from B position to A position

Answer: (c) the single movement of the pendulum from A position and returning back to A position.

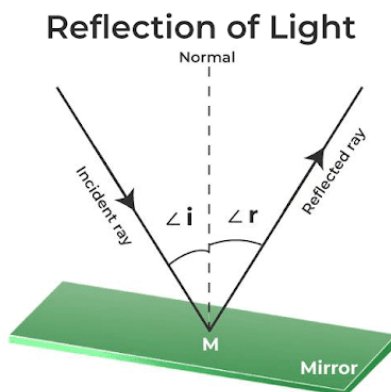
Q7 From the given figure find $\angle i$ and $\angle r$



- (a) $\angle i = 40$ and $\angle r = 40$
- (b) $\angle i = 50$ and $\angle r = 50$
- (c) $\angle i = 40$ and $\angle r = 50$
- (d) Both (a) and (b)

Answer: (a) $\angle i = 40$ and $\angle r = 40$

Feedback : The principle when the light rays fall on the smooth surface, the angle of reflection is equal to the angle of incidence



Q8 Which of the following is not likely to cause Tsunami?

- (a) A major nuclear explosion
- (b) Earthquake
- (c) Volcanic Eruption
- (d) Lightning

Answer: (d) Lightning

Feedback : The series of extremely long waves, Tsunami are very long wavelengths of water caused by a large and sudden displacement of the ocean due to earthquakes, volcanic eruptions etc.

Q9 How many images of candle will be formed if it is placed between two parallel plane mirror separated by 40 cm

- (a) 8
- (b) 9
- (c) 1
- (d) Infinite

Answer : (d) Infinite

Feedback : When an object is placed in between two parallel mirrors, the number of image formed is infinite. This is because of multiple reflection taking place from the two mirrors when kept parallel to each other.

Q10 A Paramecium reproduces by dividing itself into two daughter cells. This process is called

- (a) Budding
- (b) Regeneration
- (c) Binary Fission
- (d) Vegetative Propagation

Answer : (c) Binary Fission