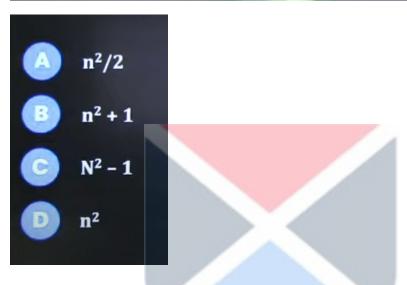
## MHT CET 2024 PCB April 23 Shift 2 Question Paper

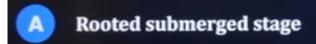
Find the ratio of K.E. and P.E. when particle performing SHM when it is at (1/n) times of its amplitude from mean position.



Two sphere are given that r = 10 cm and distance between them is 20 cm and axis is passing between the middle of the distance what is the moment of inertia?

Safety speed for vehicle moving along curved horizontal banked road.

In hydrosere succession, which stage comes just before the sedge meadow stage?



- B Phytoplankton stage
- C Reed swamp stage
- Climax stage



- The maximum kinetic energy of the photoelectrons varies.
  - If L is the inductance and R is the resistance then the unit of L/R is:
- A lift weighing 250 kg is to be lifted up at a constant velocity of 0.20 m what would be the minimum horse power of the motor to be used.
  - Which of the following causes typhoid fever?

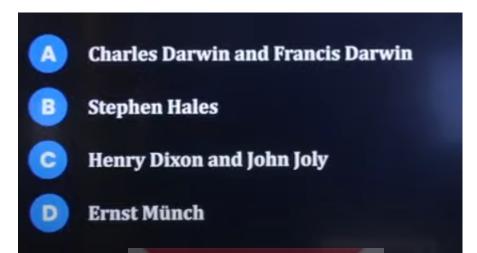
    A Salmonella typhi

    B Mosquito

    C Plasmodium

    D Nicotine

Which scientists are credited with proposing the transpiration pull theory, also known as the cohesion-tension theory?



9.

Between which among the following, the relationship is not an example of \_\_\_\_\_\_?

A Orchid and the tree on which it grows

B Cattle egret and grazing cattle

C Sea anemone and clown fish

D Female wasp and fig species

How do most arthropods circulate nutrients and gases throughout their bodies?

11.

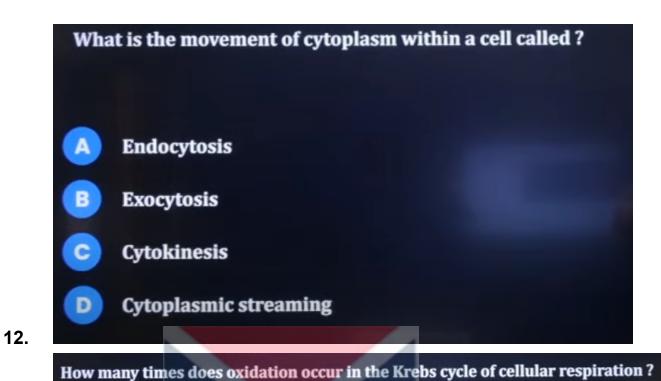




C No circulatory system

D Diffusion through body tissues

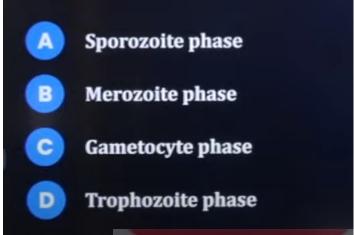




A Once
B Twice
C Three times
D Four times

During which phase of its life cycle does the Plasmodium parasite enter the human

body when a female Anopheles mosquito bites a human? 14.





Which of the following structures is responsible for the production of sperm in the male reproductive system?

A Prostate gland
B Seminal vesicles
C Epididymis
D Testes

15.

16.

Joint forest management concept was introduced in India during



The electrostatic energy stored in 1 litre volume of air when it is placed in uniform electric field of intensity 10 to the power 3 V/m is:

**17**.

A satellite has kinetic energy K potential energy V and total energy E which of the following statements is true

## Which of the following best describes sympatric speciation ?

- A Speciation that occurs due to geographic isolation
- B Speciation that occurs in the same geographic region without physical separation
- C Speciation that occurs due to migration to a new habitat
- D Speciation that occurs through gradual accumulation of small changes over time

