



UNIVERSITY OF
CAMBRIDGE

cognia™



GRADE – 7 REVISION

TR – ASMA BEGUM

 **LIVEWORKSHEETS**

10. The process by which a pot of water on your electric stove starts to heat is

- a) Conduction b) Radiation c) Convection d) Evaporation

11. The method through which the entire pot of water boils on that hot stove is

- a) Conduction b) Radiation c) Convection d) Evaporation

12. This type of heat transfer can occur in a vacuum:

- a) Conduction b) Radiation c) Convection d) Blackbody.

13. A thermos bottle that had the space between its inner chamber and outer covering filled with Styrofoam instead of a vacuum would be most likely (or, most able) to transfer heat by.

- a) Conduction
- b) warming of the atmosphere involves
- c) radiation
- d) It would not transfer heat.

14. The warming of the atmosphere involves

- a) Conduction
- b) Convection
- c) Radiation
- d) all of these

15. A plastic ice tray and a metal ice tray are removed from the same freezer (initial temperature). However, once your hands touch both, the metal one feels cooler. Why?

- a. Metal has a lower heat conductivity, so it conducts heat away from your hand faster.
- b. Metal has a higher heat conductivity, so it conducts heat away from your hand faster.
- a. Plastic has a higher heat conductivity, so it conducts heat away from your hand faster.
- d. Both A and C

16.

There is a vacuum between the double walls of a vacuum flask.

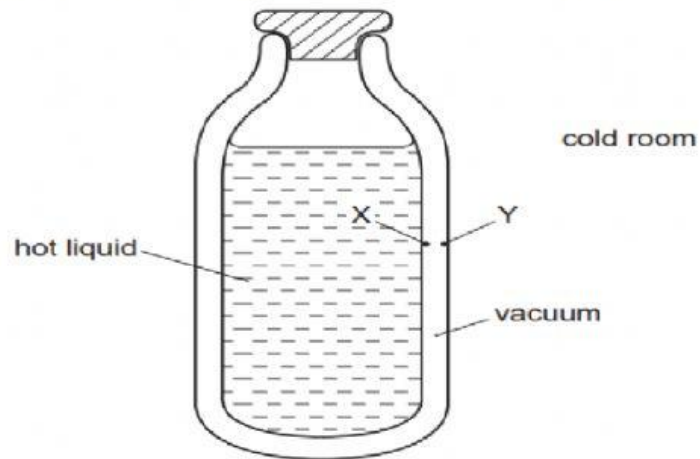
Which types of heat transfer are reduced by the vacuum?

- A** conduction and convection
- B** conduction and radiation
- C** convection and radiation
- D** conduction, convection and radiation

17.

The diagram shows the cross-section of a vacuum flask containing a hot liquid in a cold room.

X and Y are points on the inside surfaces of the walls of the flask.



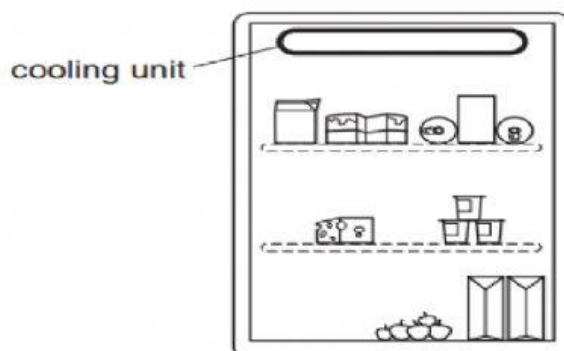
How is thermal energy transferred between X and Y?

- A by conduction and convection
- B by conduction only
- C by radiation and convection
- D by radiation only

18.

The diagram shows a refrigerator.

The cooling unit is placed at the top. The cooling unit cools the air near it.

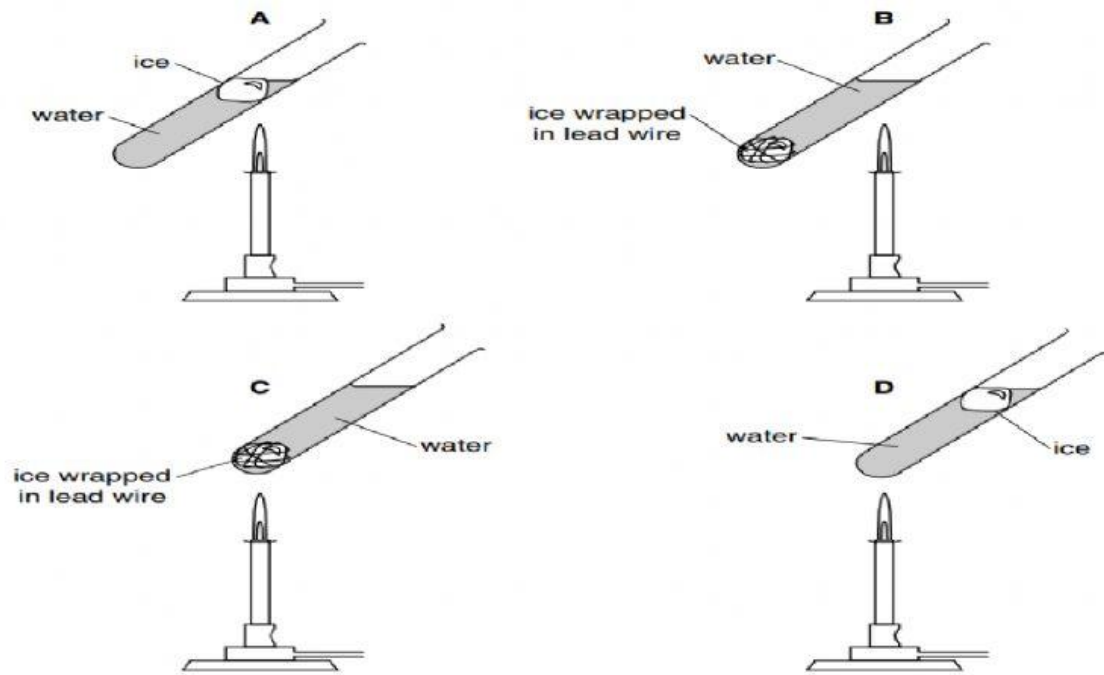


What happens to the density of the air as it cools, and how does it move?

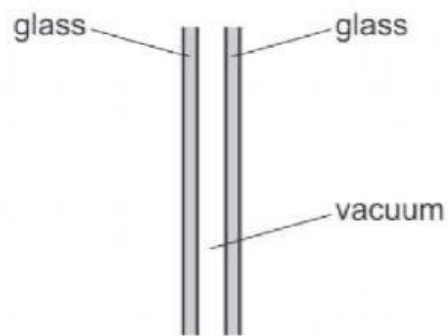
	density of the air	movement of the air
A	decreases	moves down
B	decreases	stays at the top
C	increases	moves down
D	increases	stays at the top

19.

The diagrams show four identical pieces of ice that are heated in test-tubes of water. In which test-tube will the ice take the longest time to melt?



20. The glass panes of a double glazed window is separated by vacuum.



Which methods of energy transfer are prevented by the vacuum?

- A** conduction and convection only
- B** conduction and radiation only
- C** convection and radiation only
- D** conduction, convection and radiation

21. Which is the best surface for absorbing heat radiation?

a) Shiny white b) Dull white c) Shiny black d) Dull black

22. Which is the best surface for reflecting heat radiation?

a) Shiny white b) Dull white c) Shiny black d) Dull black