

Textbook questions

Revision test I

Instructions for students: Follow your teacher's instruction. Also you can attempt this test online and see your result.

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Topic: Textbook questions

Dates: 05.10.2022 until unlimited

Question count: 3

Total marks: 17

1. Give reasons for the following (9 m.)

1. An ordinary glass bottle cracks when boiling water is poured into it, but a borosilicate glass bottle does not.

Borosilicate glass is a type of glass which has a unique quality of providing a

- A) very high coefficient of thermal expansion
- B) very low coefficient of thermal expansion

. This refers that it

- A) will crack
- B) will not crack

under extreme high-temperature changes like the regular glass does. The durability of

- A) regular glass

B) borosilicate

glass has made it very popular in the research laboratories.

2. The electric wire which sag in summer become straight in winter.

The telephone wires sag in summer due to

A) expansion

B) contraction

and become tight due to the

A) contraction

B) expansion

. This happens because the cores of the wires are made from

A) plastic

B) copper

3. Rivet is heated before fixing in hole to join two metal plates.

A rivet is made up of

A) brittle steel

B) ductile steel

with a head at the one end. It is made up of steel with

A) high tensile

B) low tensile

steel. The rivet is used for connecting pieces of metal and is made of steel with

A) low tensile

B) high tensile

strength. For using the rivets, they are heated till they become hot red and are then they are placed in the hole.

They are heated so that they become

A) more brittle

B) more ductile

and

A) cannot easily deform

B) easily deform

. Then they are pressed from one side, and ahead at the other end is formed. When the hot rivet is fixed, and it

A) expands and presses

B) shrinks and presses

the plates together.

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2. Match the following (5 m.)

- A) $100^{\circ}C$
- B) $0^{\circ}C$
- C) kelvin
- D) No heat flow
- E) joule

Column A	Column B
Heat
Temperature
Thermal Equilibrium
Ice cube
Boiling water

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3. Analogy (3 m.)

Note: Analogies are test questions where a pair of words are given, and you are asked to choose another pair with the same relationship.

1. Heat : Joule :: Temperature :

- A) watt
- B) volt
- C) kelvin

2. Ice cube : 0°C :: Boiling water :

- A) 100°C
- B) 1000°C
- C) 273°C
- D) 10°C

3. Total Kinetic Energy of molecules: Heat ::
Average Kinetic Energy :

- A) specific heat
- B) heat capacity
- C) temperature

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