Solution of Questions For Short Answer

Chapter 31 capacitor

Ans.1

Charge on the capacitor q1+q2

Ans.2

C is proportionality constant so it cannot be proportional to q.

Ans.3

Both of them will have the same potential.

Reason being that potential is proportional to charge, and since they have the same radii, the potential at surface will be the same.

Ans.4

Potential will be q-q=0

And the charge on the inner surface would be -q and outer surface would e +q.

Ans.5

Maximum charge stored in a capacitor depends upon voltage only as it is directly proportional to voltage.

Voltage of the circuit is required.

Ans.6

As the temperature increases the number of charges increases thus the mobility of charges decrease thus the polarization of the dielectric decreases.

Ans.7

The electric field exerts positive force on the dielectric as some of the energy is used to polarize the dielectric material thus the total energy of the system decreases.