SNS COLLEGE OF ALLIED HEALTH SCIENCES- COIMBATORE 35

DEPARTMENT : RADIOGRAPHY AND IMAGNG TECHNOLOGY

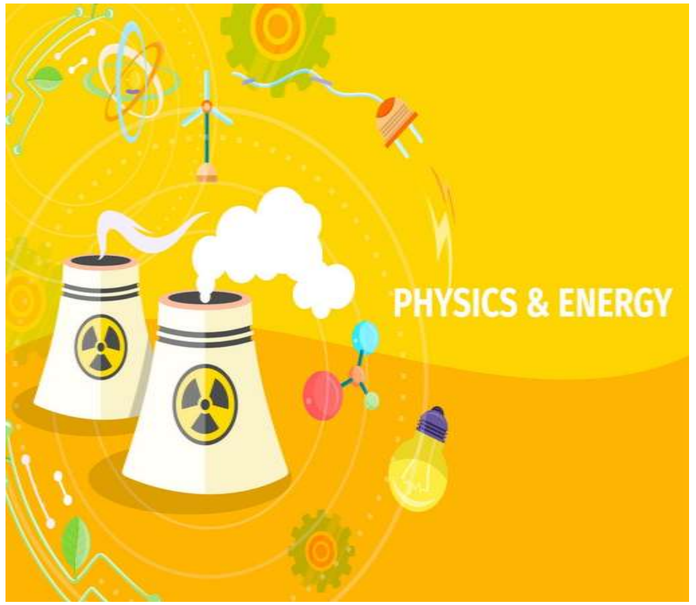
SUBJECT : GENERAL PHYSICS, RADIATION PHYSICS AND PHYSICS OF DIAGNOSTIC RADIOLOGY

PAPER : PAPER II

TOPIC : 1. ENERGY
2. HEAT
3. TEMPERATURE

ENERGY

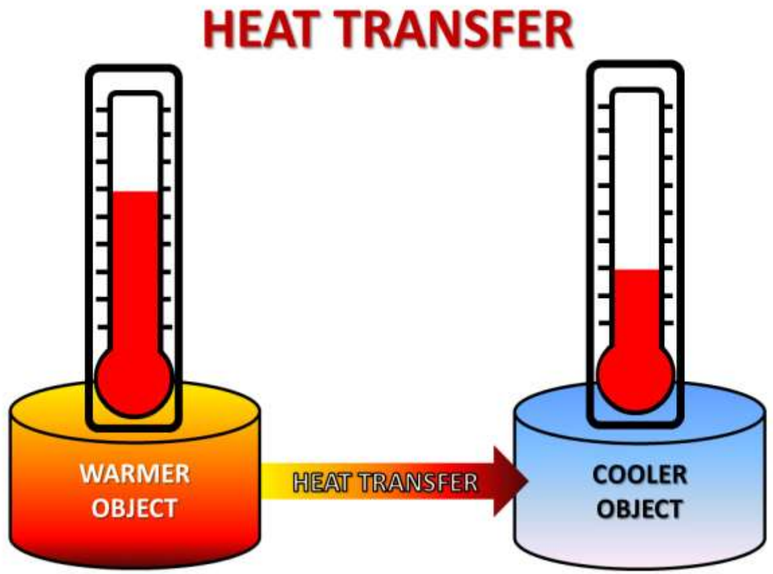
- The energy of a body is its ability to do work. It is measured by the amount of work that can be perform.
- SI unit of energy is joule (J)or the electron volt (eV) is also used as unit energy in radiation physics.
- There are many forms of energy. Such as Mechanical energy, Heat energy, Light energy, Electrical energy, Chemical energy,, Atomic energy etc..



HEAT

- The energy of form of internal energy, which can be transferred from one body to another unit joule (J).
- If a heat body and cold body are placed in closed contact, the hot body will transfer the some of its heat energy to cold body until the temperature of the two become equal. The difference in temperature creates temperature gradient.
- Three methods of heat transfer namely,

(i) Conduction (ii) Convection (iii)Radiation



HEAT

- **CONDUCTION**

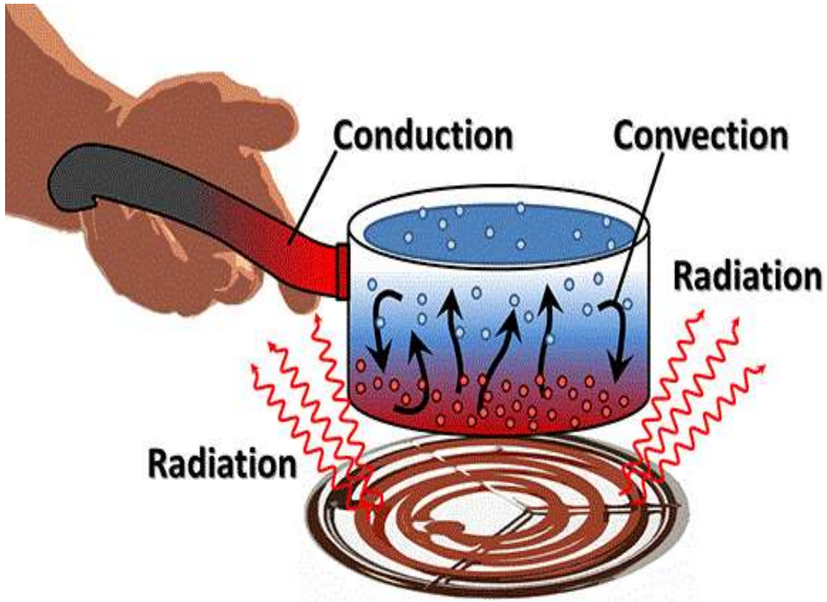
  The transfer of heat or electric current from one substance to another by direct contact.

- **CONVECTION**

  The transfer of heat through a fluid (liquid or gas) caused by molecular motion.

- **RADIATION**

  Energy that is radiated or transmitted in the form of rays, wave or particles.



TEMPERATURE

- Temperature is the measure of hotness or coldness expressed in terms of any several scales, including Fahrenheit and Celsius.
- Temperature indicates the direction in which heat energy will spontaneously flow. i.e. from a hotter body (one at high temperature) to colder body (one at lower temperature).

INTERROGATIONS

1. Define Energy
2. Methods of heat transfer
3. What is Temperature ?

REFERENCES

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THANK YOU