

### VALUE BASED QUESTIONS on E M WAVES

- 1) Ramu got injured in an accident. His friend Somu immediately took him to the hospital. The Doctor suspecting a fracture advised him to go for a scan. What is meant by scanning ? What type of em radiations might have been used? What human values does Somu show here?
- 2) Ramesh is a welder .One day he was welding a broken part of a grill .His friend who was observing the work asked him why he was wearing goggles. Ramesh told him that he wanted to protect his eyes from harmful radiations .What type of radiation is mentioned here? Mention one use of such a type of radiation. What type of value is shown by Ramesh's friend. ?
- 3) Krishna was suffering from lot of pain due to a small lump in his mouth .Unable to bear his sufferings his friend Raman took him to a doctor and the doctor operated upon the lump by passing powerful radiations from a tube,as it was a cancerous tumour. What type of radiation does the doctor use to operate the tumour? Mention any other use of such a radiation. What type of value is shown by Raman.?
- 4) Akshara and her father Dinesh were watching news in the TV.in the news a satellite picture was shown highlighting the weather pattern for the day. Enthused by that picture Akshara asked her father on how they were able to get that picture. Her father being a meteorologist explained that this type of pictures are taken from the satellite by using a particular type of em waves.
  - a)What type of e m waves does Dinesh refer to?
  - b) Mention any other uses of such a type of wave.
  - c) What value is shown by Akshara here.
- 5) Sushmitha went to Kalpakkam nuclear power plant to see his father who was working as a nuclear scientist .As his fathers arrival was delayed ,she waited anxiously and asked her father about his delayed arrival. His father told that each one of them should undergo radiation check before coming out of the reactor site as they are very much susceptible to intake of harmful radiations.
  - a) What type of radiations does Sushmitha's father refer to?
  - b) State two other applications of the wave.
  - c) What type of value is shown by Sushmitha here.?

#### Some of the values

- 1) Sympathy 2) Empathy 3) Awareness 4) Curiosity 5) Caring nature 6) Knowledge
- 7) Critical thinking 8) presence of mind 9) helping nature 10) Inquisitiveness 11) Honesty