23124

3 Hours / 70 Marks   Seat No.

Instructions :   (1)   All Questions are *compulsory.*

(2)   Answer each next main Question on a new page.

(3)   Illustrate your answers with neat sketches wherever necessary.

(4)   Figures to the right indicate full marks.

(5)   Assume suitable data, if necessary.

(6)   Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1.   **Attempt any FIVE of the following :**   **10**

(a)   List out any four eco-friendly textile fibres.

(b)   Enlist components of environment and state its importance.

(c)   State the scope of environment.

(d)   Enlist any four significance of "Eco-Labelling".

(e)   Enlist Eco-labelling standards.

(f)   List out any four water polluting substances used in textile processing industry.

(g)   State any two sources of energy consumption.

2.   **Attempt any THREE of the following :**   **12**

(a)   Describe any four recent innovations of Eco-friendly textiles.

(b)   Illustrate the factors affecting Eco-labelling.

(c)   Explain the management of "Solid Waste" in textile industry.

(d)   Demonstrate the impact of dyes and chemicals on eco system.

3. **Attempt any THREE of the following :** 12

   (a) Outline any four advantages and four limitations of natural dyes.

   (b) Relate the opportunities and challenges of eco-labelling of textiles.

   (c) Explain the basic principles of solid waste management.

   (d) Elaborate the importance of material safety data sheet for chemicals used in textile processing.

4. **Attempt any THREE of the following :** 12

   (a) Elaborate eco-friendly textile printing of handloom fabric.

   (b) Analyse the factors in Life Cycle Assessment process.

   (c) Compute the steps of waste water treatment for textile processing unit.

   (d) Elaborate the scope of utilization of solar and wind energy in textile sector.

   (e) Elaborate on the banned amines used in textile processing.

5. **Attempt any TWO of the following :** 12

   (a) Justify – Bamboo, organic cotton, wool and hemp fibres are eco-friendly fibres.

   (b) Generate a suitable example for recycling of used clothing for conversion to new product.

   (c) Relate the importance of use of renewable energy in textile unit with suitable example.

6. **Attempt any TWO of the following :** 12

   (a) Analyse the sustainable waste management strategies in textile industry.

   (b) Demonstrate the importance of carbon footprint in textile processing in present scenario.

   (c) Generate the energy need and consumption pattern in E-control dyeing process of textile processing unit.

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