Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

1. Cemets is the composites of   CO1-U

   (a) Cement and metals   (b) Ceramic and metal

   (c) Cement and aesthetics   (d) Ceramic and fiber

2. Particulate composites have one or more material particles suspended i   CO1-U

   (a) Metal matrix   (b) Polymer matrix

   (c) Binding matrix   (d) Plastic matrix

3. The word 'polymer' meant for material made from   CO1-U

   (a) Single entity   (b) Two entities   (c) Multiple entities   (d) Any entity

4. In general, strongest polymer group is   CO1-U

   (a) Thermoplasts   (b) Thermosets   (c) Elastomers   (d) All polymers

5. Kevlar is commercial name for   CO1-U

   (a) Glass fibers   (b) CO_2 (c) Aramid fibers   (d) Cermets

6. Shape memory actuators respond to a _____change with a shape change   CO1-U

   (a) Current   (b) Voltage   (c) Time   (d) Temperature

7. The combination of composite materials and ------- are the structural materials   CO1-U

   (a) Smart materials   (b) Monolithic materials

   (c) Fiber   (d) Ceramic

8. Fiber glass is the _____reinforced by glass fibers. CO1-U

(a) Plastic matrix   (b) Polymeric matrix

(c) Metal matrix   (d) Fiber matrix

9. Concrete has Orientation of particle is -------- in all directions. CO1-U

(a) Uniformly distributed   (b) Linear distributed

(c) Nonlinear distributed   (d) Randomly distributed

10. The Smart Control System will provide -------- for the sensors and actuators   CO1-U

(a) Quality   (b) Feedback control   (c) Signals   (d) All of the above

PART – B (1 x 20=20 Marks)

11. (a) Explain application of smart materials in Electronics and consumer   CO2- U   (20)
products.

Or

(b) Explain about application of smart materials in sensors.   CO2- U   (20)

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