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Question Paper Code: 98762

B.E. / B.Tech. DEGREE EXAMINATION, MAY 2022

One credit

Mechanical Engineering

19UME862 – SMART MATERIALS

(Regulation 2019)

Duration: 1.30 hours

Maximum: 50 Marks

Answer ALL Questions

PART A - (10 x 1 = 10 Marks)

- Piezo-electric materials are used in
(a) Transducer (b) Load gauges (c) Batteries (d) Switches
- _____ which respond with a change in shape on the application of mechanical stress
(a) Wooden materials (b) Plastic materials (c) Iron materials (d) Smart materials
- _____ type charge sensor for highly sensitive detection of a DNA sequence.
(a) JFET (b) PTFE (c) LED (d) FET
- A smart material may be considered as a replacement for a ----- material.
(a) Traditional (b) Conventional (c) Un conventional (d) Recycle
- Self-healing may also be achieved through deliberately applied _____ mechanisms.
(a) psychological (b) chemical (c) mechanical (d) obvious
- Light sensors are used in _____
(a) Lights (b) Electric switches
(c) Pyroelectric materials (d) Piezoelectric materials
- Glass fiber tensile strength is _____ (GPa)
(a) 3.5 to 4.6 (b) 3.2 (c) 4.6 to 5.0 (d) 2.3

