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122243/32243

4th Sem. / Plastic Tech.

Subject : Plastic Materials and Properties-II / Engg. & Sp. Poly

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Very Short Answer type questions. Attempt any 15 parts. (15x2=30)

Q.1 a) Define thermoplastics.

b) Define elastomer.

c) Expand PSO.

d) What is 'Teflon'?

e) State the uses of polyacetals.

f) Expand PES

g) Name two coupling agents used in reinforced plastics.

h) What is mica?

i) Expand PU.

SECTION-C

Note: Long answer type questions. Attempt any three questions. 3x10=30

Q.3 Describe manufacture and applications of Polyether Ether Ketone and Polyacetals.

Q.4 Describe the manufacture, properties and uses of Polyacrylates.

Q.5 Describe the preparation and properties of Boson fiber.

Q.6 Describe the preparation and applications of PVC-Nitrile rubber.

Q.7 Describe the preparation and applications of conducting polymers.

j) State the role of CNT in nanocomposites.

k) Define nano particles.

l) Write general structure of Nylon 6.

m) Expand EPDM.

n) What is meant by compatibility of blend?

o) Define polymer alloy.

p) Define Biopolymer.

q) Give two applications of polymer concrete.

r) Define optoelectronic plastics.

SECTION-B

Note: Short answer type questions. Attempt any ten parts 10x4=40

Q.2 i) Describe manufacture of Polyphenylene oxide.

ii) State the properties and uses of PTFE.

iii) Write a note on liquid crystalline polymer.

iv) Describe the manufacture of Polyether Sulphone.

v) Explain the principle of composite reinforcement.

vi) Explain the role and nature of binders in reinforced plastics.

vii) Explain the role of Talc in reinforced plastics.

viii) Explain the properties and applications of epoxy FRP's.

ix) Write a note on interpenetrating polymer network.

x) State the advantages of polymer blends and alloys.

xi) State the properties of ABS-PVC blend.

xii) Define clay and state its role in nanocomposites.

xiii) State the applications of Biopolymers.

xiv) Write a note on nano-polymeric materials.

xv) Describe the applications of optoelectronic plastics.