

- Q.23 Discuss various fillers used in FRP.
- Q.24 Explain Difference between polymer blends and polymer alloy.
- Q.25 Discuss preparation of graphite fiber.
- Q.26 Write shorts notes on Interpenetrating network.
- Q.27 What is membrane separation process explain its various techniques.
- Q.28 Discuss Bio polymers.
- Q.29 Discuss properties and application of PES.
- Q.30 Discuss role of binder in polymer composite.
- Q.31 Write role of coupling agent in Polymer blend.
- Q.32 Discuss preparation of graphite fiber.
- Q.33 Discuss characteristics and application of opto-electron plastic materials.
- Q.34 What is polymer concrete write its three application.
- Q.35 Explain application of plastic in food packing.

SECTION-D

Note: Long answer questions. Attempt any two questions out of three Questions. (2x10=20)

- Q.36 Discuss the following given below-
- Role of composition of individual materials in polymer blend
 - Parameter of compatibility
- Q.37 Discuss in detail-
- Conducting Polymer
 - Biodegradable polymer
- Q.38 What is Nano-composite discuss various types of fillers used in nano-composite material

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4th Sem.
Branch : Plastic
Sub.: Plastic Materials & Properties -II/Engg. & Sp. Poly.

Time : 3 Hrs. M.M. : 100

SECTION-A

Note: Multiple type Questions. All Questions are compulsory. (10x1=10)

- Q.1 PPS is categorized as _____
- High Performance Polymer
 - Commodity plastic
 - Both A & B
 - None
- Q.2 Plastics are _____.
- High Performance material
 - Commodity material
 - Both A & B
 - None
- Q.3 Which of the following has the lowest coefficient of friction?
- LDPE
 - PTFE
 - POM
 - PEEK

- Q.4 PTFE stands for _____.
 a) Poly tetra flouro ethylene
 b) Poly tetra flouro ester
 c) Poly tetra formaldehyde ethylene
 d) Poly tertiary flouro ethylene
- Q.5 Which of the following is an example of miscible polymer blend?
 a) PVC-Nitrile Rubber b) PP-EPDM
 c) PVC-ABS d) None of the above
- Q.6 Which of the following is a common application of reverse osmosis?
 a) Increasing the salt content in seawater
 b) Filtering large particles from tap water
 c) Purifying drinking water and desalination
 d) Creating a mixture of solutes and solvents
- Q.7 CNT is considered as _____.
 a) Nano Filler b) Micro Filler
 c) Short Fiber d) None
- Q.8 Which of the following is a characteristics of IPN (Interpenetrating network)
 a) Two or more polymer network are physically entangled
 b) Two or more polymer network are chemically entangled
 c) Both A & B
 d) None

- Q.9 What of the following is an example of conducting polymer
 a) Polythiophene b) Polypyrrole
 c) Both A & B d) None
- Q.10 What role does ABS play in PVC-ABS blend?
 a) It improves flexibility and impact resistance
 b) It enhances UV resistance
 c) It reduces chemical resistance
 d) It increases the melting point

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 Write two techniques of membrane separation.
 Q.12 Expand FRP.
 Q.13 Draw chemical structure of PP.
 Q.14 Write two application of membrane separation.
 Q.15 Define polymer blend.
 Q.16 Expand PEEK.
 Q.17 Name two specialty polymers.
 Q.18 Write two materials used in aerospace.
 Q.19 Give two example of compatible blend.
 Q.20 What is chemical name of Teflon.

SECTION-C

Note: Short answer type Questions. Attempt any twelve questions out of fifteen Questions. (12x5=60)

- Q.21 Explain properties and application of LCP.
 Q.22 Discuss advantages of PP-EPDM Blend over PP.
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