

- 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

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- 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.