

- Q.25 Discuss nano-composites.
- Q.26 Explain role and importance of coupling agents.
- Q.27 Discuss polymer-concretes and their applications.
- Q.28 Explain effect of fiber reinforcement and their layout techniques in FRP.
- Q.29 Discuss plastic materials used in food packaging.
- Q.30 Discuss the role of plastics in Bio-medical application by giving suitable example.
- Q.31 Explain principle of composite reinforcement.
- Q.32 State various applications of PPS.
- Q.33 Give properties and applications of PPO materials.
- Q.34 Discuss various applications of POM material.
- Q.35 State four advantages of polymer blending?

SECTION-D

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

- Q.36 Explain preparation, properties and applications of carbon fibers.
- Q.37 Explain polymer blends and alloy and also explain various types of polymer blends by giving suitable example.
- Q.38 Discuss:
- Conducting polymers
 - Properties and applications of LCP.

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Roll No.

4th Sem / Plastic Engineering
Subject:- Plastic Materials & Properties - II /
Engg. & SP. Polymers

Time : 3Hrs.

M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory (10x1=10)

- Q.1 Density of PPS is ____.
- 0.92 g/cc
 - 2.8 g/cc
 - 1.67 g/cc
 - 2.0 g/cc
- Q.2 "Teflon" is the trade name of which polymer?
- PPO
 - PEEK
 - PSO
 - PTFE
- Q.3 Which polymer is used aircraft application?
- PEEK
 - PS
 - PE
 - PA
- Q.4 PSO stands for ____.
- Plastic standard object
 - Poly sulphones
 - Poly sulphur oxide
 - None of the above

- Q.5 Silanes & Titanates are the example of _____.
 a) Reinforcing fillers b) coupling agents
 c) resin substance d) none of the above
- Q.6 Which of the following specialty plastic is transparent?
 a) PEEK b) PSO
 c) PEI d) PAI
- Q.7 What is the full form of PEEK?
 a) Poly Ether Ether Ketone
 b) Poly ether ether keatone
 c) Poly ethyl ether ketone
 d) Polyester ethyl ether ketone
- Q.8 Which material is used for non-stick coating of utensils?
 a) PS b) PES
 c) PTFE d) PEEK
- Q.9 Which of the following is an example of inter-penetrating network (IPN)?
 a) PVC-Nitrile Rubber b) PP-EPDM
 c) PVC-ABS d) none of the above
- Q.10 Which of the following is an example of filler used in FRP industry?
 a) Mica dust b) Calcium carbonate
 c) Talc d) All of them

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SECTION-B

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

- Q.11 Expand LCP.
- Q.12 Name two specialty polymers.
- Q.13 Which polymeric material is used in hemo-dialysis membranes?
- Q.14 Name four fibers used in FRP's
- Q.15 Give two food packaging application of Plastics.
- Q.16 Name two conducting polymers.
- Q.17 Give two advantages of polymer concrete.
- Q.18 Name two resins or binders used in FRP industry.
- Q.19 Polysulphones generally shows _____ UV resistance than PC.
- Q.20 Give two applications of POM.

SECTION-C

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

- Q.21 Give properties and applications of PEEK material.
- Q.22 Discuss poly-arylates materials.
- Q.23 Discuss properties and advantages of ABS-PVS blends.
- Q.24 Discuss various types of glass-fibers used in FRP industry.

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