BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(MID SEMESTER EXAMINATION)

CLASS: BE **SEMESTER: V**
BRANCH: CHEMICAL ENGG. (PLASTICS & POLYMER) **SESSION : MO/2018**

SUBJECT : PC5001 POLYMER TECHNOLOGY-II

TIME: 1.5 HOURS **FULL MARKS: 25**

INSTRUCTIONS:
1. The total marks of the questions are 30.
2. Candidates may attempt for all 30 marks.
3. In those cases where the marks obtained exceed 25 marks, the excess will be ignored.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. The missing data, if any, may be assumed suitably.

Q1	(a)	How is unsaturated polyester get crosslinked? Name the reagents used in doing so.	[2]
	(b)	Write down method of preparation of PF using acid catalyst.	[3]
Q2	(a)	Describe the steps followed in synthesis of Silicones. Why is it resistant to high temperature?	[2]
	(b)	Explain the reason of using stretch blow moulding for making bottles with PET.	[3]
Q3	(a)	Differentiate between UF and MF.	[2]
	(b)	Write down a recipe of PF based moulding compound for electrical insulation purpose.	[3]
Q4	(a)	Write down crosslinking reaction mechanism of epoxy resin. Mention the name of reagents used for this	[2]
	(b)	What are the applications of polyether ketone? What are the basic difference between PEK and PC chemical structure?	[3]
Q5	(a)	Why do we see two glass transition points for PC? Explain.	[2]
	(b)	List out at least two applications of each of the following polymers and justify: PC, UF, POM, vinyl ester, PU	[3]
Q6	(a)	Write down reactions involved during synthesis of MF resin.	[2]
	(b)	What is advantage of MUF over MF?	[3]

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