

**PTL 709: Polymer Technology**  
**Minor Test II (Report), Sem I, 2008-09**

F.M. : 60  
Time: 2Hour

1. Classify the following chemicals used in polymer technology. Cite suitable use(s).

- i) O-hydroxy benzophenone
- ii) DIOP
- iii) zing borate
- iv) iron oxide
- v) micronized mica
- vi) cetyl palmitate
- vii) coconut shell flour
- viii) dilauryl thiodipropionate
- ix) dibutyltin dimaleate
- x) toluene sulfonyl semicarbazide

10x1=10

2. a) Give a brief description on flame retardants in polymers.

b) Write potential application of polyethylene in the following areas:-

- (i) blow molded articles
- (ii) pipes and tubes

6+(2+2)=10

3. Write down the Ziegler process for the manufacture of polypropylene.

10

4. a) Justify the statement “ stabilization of PVC is a must in technology”.

b) What factors govern the selection of stabilizers for PVC?

c) Describe the uses of PVC in the following applications:

- i) building
- ii) leather cloth
- iii) personal apparel

2+1.5+(2.5+2+2)=10

5. a) Write down the technology of high impact polystyrene based on PS/SBS blends.

b) Describe the technology of the grafted type of ABS plastic.

5+5=10

6. Give formulations for the following products. Justify your choice of the materials.

- a. shiplap wall cladding
- b. flower pot
- c. inflatable baby toys

4+3+3=10