# ST 5002 Prefabricated Structures

## Important 13 Mark questions

### Unit I

1. What are the general specific requirements for planning and layout of prefabrication plant?
2. Discuss in detail about codal provision of prefabricated structure.
3. Explain the process of production, transportation and erection of prefabrication.
4. Describe in detail the concept of modular co-ordination and standardization in precast construction.
5. Explain the different stages in construction of pre-fabricating structures.

### Unit II

1. Discuss in detail with sketches the different types of column to column connections used in framed precast reinforced concrete building.
2. Explain in detail about large panel construction with neat sketches.
3. Write short notes on:
   (i) One way slab
   (ii) Two way slab
4. Explain in detail the framed buildings with partial and curtail walls.
5. With neat sketch, briefly explain about the various types of connections adopted in precast construction.

### Unit III

1. What are the types of joints in present construction? Also explain its behaviour.
2. What are the requirements of ideal structural joints? Explain different kinds of joints used in prefabricated structure.
3. List out the steps for analysis and design of hollow core slab with appropriate sketches.
4. Discuss in detail the ultimate strength calculations in shear and flexure for slabs.
5. Explain in detail the manufacture of roof slab. Also explain the precautions taken during the manufacturing process.

## Unit IV

1. What are the factors affecting the stability of wall panels, explain in detail?
2. Explain the different types of wall panels and blocks.
3. Describe in detail the pattern of load transfer from floor to wall panels.
4. Discuss the different types of joint sealants used in precast buildings. Narrate the advantages and disadvantages of the sealants.
5. Explain in detail the construction of pre-fabricated R.C roof trusses and roof panels.

## Unit V

1. Briefly explain the various equipment used in the erection of prefabricated industrial building.
2. Discuss the design procedure for corbels and folded plates.
3. Give a detailed account about the design of wind bracing in a precast building.
4. Explain in detail the construction of pre-fabricated cylindrical, folded plate and hyper shells in industrial structures.
5. Explain in detail about prefabricated shell roof structures.