### B.TECH.

# THEORY EXAMINATION (SEM-VIII) 2016-17 COMPUTER AIDED DESIGN

Time: 3 Hours Max. Marks: 100

Note: Be precise in your answer. In case of numerical problem assume data wherever not provided.

### **SECTION-A**

# 1 Explain the following:

 $(10 \times 2 = 20)$ 

- a) Use of cad in civil engg
- **b)** Use of environmental engg softwares
- c) 2D modelling softwares
- **d**) Concept of 3D and 4D modelling
- e) Soft computing
- f) Two structural design softwares
- g) Limitation of softwares
- **h**) Earthquake resistant design softwares
- i) High rise construction and computational tools
- **j**) Modular programming.

#### **SECTION-B**

2 Attempt any **five** of the following:

 $(10 \times 5 = 50)$ 

- a) What is neural networks and its application in civil engg
- **b)** Define Expert system, their development in geotechnical engg.
- c) How you will make plan and elevation of a 1500 sqft covering area.
- d) Is there any role of softwares in making plumbing requirement in an appartment.
- e) What are advantages of Computer Aided design over conventional design.
- f) Discuss concept of 2D/3D/4D modeling of building.
- g) How you will analyze a rcc beam in any structural engg softwares.
- h) Discuss concept of geotechnical softwares for deep foundations.

# **SECTION-C**

Attempt any **two** of the following:

 $(15 \times 2 = 30)$ 

- 3. Discuss Use of software packages in the area of water logged areas.
- 4. Design rcc dome of intz water tank for 250 klitres.take staging height 22m.sbc 12kn/sqm. Assume other details.
- 5. a) Is there any role of Environmental fields software in drainage plan of a city?
  - b) How you will model a 2 story 2 bay rcc frame structure.