# PART–A 16M

**INSTRUCTIONS :** Answer All Questions. First Question Carries Four Marks; Each Question of Remaining Carries Three Marks.

1. a) Which is the following is the most important feature of the spiral model

b) SDLC Full form

c) how many models selection is based an ?

d) Software Debugging is Known as

2. definition of software engineering?

3. explain a software life cycle model?

4. what is the data flow oriented design ?

5. Write a High Level Language programming?

**PART-B 3x8=24M**

**Instructions:**Answer all questions Eachquestion carries 8marks and may have sub questions

1. (a) Write a control Flow-Based Design

(or)

(b)Explain the waterfall Model with neat diagram?

## (a) Explain the evolutionary model with neat diagram?

(or)

(b)Explain a spiral Model in detailed?

## 8 (a) Explain about software project manager and job responsibilities of a software project manager ?

(or)

(b) Write a staffing level estimations ? Nordens work

# PART–A 16M

**Instructions:**AnswerAllQuestions.FirstQuestionCarriesFourMarks;EachQuestionofRemainingCarriesThreeMarks.

1. a)Thetoplineofthe rooftruss iscalled (**C06**)
   1. Thebottomedgeofroofsurfaceiscalled (**C06**)
   2. Thetopchord membersofarooftrussarecalled (**C06)**
   3. Theeconomicalspacingof rooftrusses workouttobe ofspan(**C06**)
2. Definecolumnandstruct?(**C04**)
3. Explainthetermsa)slendernessratiob)radiusofgyration(**C04**)
4. Explainthetermsa)Elasticmomentofresistanceb)Shapefactor(**C05)**
5. Howmuchliveloadontrussisconsideredindesignif theangleofslopeofroofis25 degrees(**C06**)

**PART-B 3x8=24M**

**Instructions:**AnswerallquestionsEachquestioncarries8marksandmayhavesubquestions

1. (a) Determine the design axially loaded capacity of the column ISHB 300 at 577 N/m ,if the length of the columnis3mand its both ends pinned (hinged).Take fy= 250N/mm2,fu = 410N/mm2,E= 2x10^5 N/mm2**((C04**)

(or)

(b) Design a steel column section to carry an axial load of 410 KN.The column is 4.2 m long and restrained againsttranslationand freeagainstrotation .Yieldstress ofsteelused is250Mpa

## (a) Determine the shape factor the ‘**I’** section of flange dimensions 140x16mm and web dimensions368x8.9mmand alsoexplain theconcept of webbucklingandweb cripplingwith neatsketches.(**C05)**

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(or)

(b) Design a simply supportedbeam of an effective span 6m carries a udl of 20 Kn/m including selfweight.If thecompression flange of the beam is laterally restrained .check the beam for shear and deflection .The grade of steel isFe 250

## (a) Design a single Angle struct connected to the gusset plate to carry 180kN factored load.The length ofthestruct betweenc/c intersection is3m.Yield stress ofsteel is 250Mpa.Usefilletwelds.**(C04)**

(or)

## (b)Designaslabbasewithrectangular baseplatehavingequal projectionsforacolumnsection constining