

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**MCA - SEMESTER- V • EXAMINATION – WINTER 2015**

Subject Code: 2650020

Date: 08/12/2015

Subject Name: Software Project Management (SPM)

Time: 10.30 AM TO 01.00 PM

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Explain the major activities carried by Software Project Manager and the order in which they are carried out. **07**
- (b) Explain various steps involved in step wise Project planning with neat diagram **07**
- Q.2** (a) Discuss the various cost benefit evaluation techniques in brief. **07**
- (b) State the disadvantages of waterfall model and also state how these disadvantages are overcome by agile model. **07**
- OR**
- (b) What is dangle in an activity network? Explain with an example. **07**
- Q.3** (a) Discuss the role of cost estimation in software development project. Briefly explain COCOMO model for cost estimation. **07**
- (b) Describe with an example how the effect of risk on project schedule is evaluated using PERT. **07**
- OR**
- Q.3** (a) State the general resources required for Software Projects and also explain how they are scheduled. **07**
- (b) Explain the following: **04**
- [a] Grantt chart **03**
- [b] RAG reporting **03**
- Q.4** (a) Explain different types of contracts and explain different stages in contract placement. **07**
- (b) Explain Herzberg's two-factor theory of motivation. **07**
- OR**
- Q.4** (a) Calculate the earliest start and completion dates of the activity using the forward pass of the Critical path method for the following project details and draw the activity network at the completion of the forward pass. Clearly indicate the steps followed in the calculation. **07**

Activity ID	Activity Description	Duration(weeks)	Precedents
A	Hardware Selection	6	
B	Software Design	4	
C	Install Hardware	3	A
D	Code and test software	4	B
E	File take on	3	B
F	Write User Manuals	10	

G	User trainings	3	E,F
H	Install and test systems	2	C,D

(b) Discuss what is activity on arrow network with an example. **07**

**OR**

**Q.5** (a) Write down the stages of team formation model. **07**

(b) Is line of code a good measure of software estimation? Justify. **07**

**OR**

**Q.5** (a) Discuss the various techniques which are used to enhance Software Quality **07**

(b) Explain in brief the Top-down and Bottom-up estimation techniques **07**

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