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Total Number of Pages: 02

**B.TECH**  
**PCIT4402**

**7<sup>th</sup> Semester Regular / Back Examination 2015-16**  
**SOFTWARE PROJECT MANAGEMENT**

**BRANCH: IT**

**Time: 3 Hours**

**Max Marks: 70**

**Q.CODE: T646**

**Answer Question No.1 which is compulsory and any five from the rest.**

**The figures in the right hand margin indicate marks.**

**Q1** Answer the following questions: **(2 x 10)**

- a) What is stakeholder of a project? Name the different types of stakeholders.
- b) What is Cost-benefit evaluation of projects? What are the different types of costs involved in a software project?
- c) Differentiate Agile process models from other process models for a software project.
- d) How is COCOMO II different and useful over earlier COCOMO Models?
- e) What are WBS and PBS? Give suitable examples.
- f) What do you mean by different levels of testing?
- g) How is project risk different from Business risk? Give examples.
- h) What is RAG reporting? What it is used for?
- i) What is egoless programming? What advantage does it provide?
- j) How is software quality defined? Why is it important for software projects?

**Q2 a)** Explain the steps of project planning and the activities carried out at each step. **(5)**

**b)** What methods are used to identify project risks? Explain the tools and techniques used to evaluate and prioritize the identified risks? **(5)**

**Q3 a)** What is discounted cash flow? Explain the disadvantages of ROI and Payback Period for project evaluation, and in what way NPV is more suitable for project selection. **(5)**

**b)** Based on the project cash flows in the table given below determine which project should be selected while using Net Profit, ROI and Payback Period methods. **(5)**

	Project A	Project B
Year 0	-1000,000	-150,000
Year 1	200,000	25,000
Year 2	300,000	50,000
Year 3	400,000	75,000
Year 4	500,000	75,000
Year 5	500,000	50,000

**Q4** How are contracts categorized? Why is it necessary to have a contract for software projects? Explain the different stages in the contract placement. **(10)**

- Q5 a)** Create a precedence activity network using the following details. Compute the early and late start and end dates of the activities and the associated float. Based on this identify the critical path of the project. **(5)**

Activity	Depends on	Duration (Days)
A	-	5
B	A	7
C	B	6
D	A	5
E	D	10
F	B	15
G	B	8
H	G	8
I	C	4
J	G	4
K	E,F	5
L	I,H	3

- b)** Explain the Oldham-Hackman job characteristics model for motivation at work. What action can the software project manager take to improve team motivation? **(5)**
- Q6 a)** Explain the different project progress visualization techniques used for project monitoring. **(5)**
- b)** A project is to be completed in one year at the cost of Rs.120,000. After six months it is found that 40% of the project is complete at a cost of Rs.50,000. Assess the project with respect to cost and schedule performance. Compute the revised estimate at completion (EAC) and time estimate at completion (TEAC). **(5)**
- Q7 a)** Explain different types of team structures with advantages and suitability for different types of projects. **(5)**
- b)** What are the quality characteristics of software product defined under the ISO 9126 standard? **(5)**
- Q8** Write short notes on any two: **(5 x 2)**
- Xtreme Programming
  - Caper Jones Rules of Thumb
  - PERT
  - SEI CMM