	<u>Uteah</u>
Name :	(4)
Roll No.:	As Spanner (Victorial Spain State St
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CS/M.Tech (VLSI)/SEM-2/PGMVD-205/2013

2013 PROJECT MANAGEMENT

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

GROUP - A (Multiple Choice Type Questions)

- 1. Choose the correct alternatives for the following: $5 \times 2 = 10$
 - i) You work for a nonprofit organization and are currently heading up a project to bring clean drinking water to several villages on a remote place in Nadia district. Your stakeholders have changed the scope of this project three times already, and the steering committee has reprioritized this project twice during the last six months. Which of the following risk categories does this represent?
 - a) Quality risk
 - b) Organizational risk
 - c) Project management risk
 - d) External risk.

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- ii) Your project sponsor has requested a cost estimate for the project you're working on. This project is similar in scope to a project you worked on last year. He would like to get the cost estimates as soon as possible. Accuracy is not his primary concern right now. He needs a ballpark figure by tomorrow. You decide to use
 - a) Analogous estimating techniques
 - b) Bottom-up estimating techniques
 - c) Parametric modeling techniques
 - d) Computerized modeling techniques.
- iii) A contractor is working on a fixed price contract that calls for a single, lump sum payment upon satisfactory completion of the contract. About halfway through the contract, the contractor's project manager informs the contract administrator that financial problems are making it difficult for the contractor to pay employees and subcontractors. The contractor asks for a partial payment for work accomplished. Which one is the best out of the following possible actions?
 - a) Starting to make partial payments to the contractor
 - b) Making no payments to the contractor
 - c) Paying for work accomplished to date
 - d) Negotiating a change to the contract.

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iv) You are a project manager in Information Technology. Your project involves writing a new software program for the sales team of your company. Your company has strict policies regarding hardware. The project team requested new hardware for this project that was outside the stated policy. The request was denied. As a result, your new program must be compatible on the hardware specified in the policy. This is an example of which of the following?

a) Risk

b) Constraint

c) Deliverable

d) Assumption

v) You have applied for and accepted a new position advertised as a project manager. Things unfortunately don't go well from that point on. Within two weeks of starting the job, Sumit, who is one of your project team members, enters a dispute with you over the work you have assigned him. You have not been able to successfully resolve the dispute with Sumit, and you are determined to get to the bottom of things quickly. You call a meeting with Sumit's manager, who is your peer. He subsequently informs you that everything Sumit has told you about his availability and task assignments are true. Together, you and Sumit's manager work out a reasonable solution to the problem. What type of organization does this describe?

a) Weak matrix

b) Strong matrix

c) Functional

d) Balanced matrix.



(Short Answer Type Questions)

Answer any three of the following.

- $3 \times 5 = 15$
- 2. Mention the nine project management knowledge areas with their scopes.
- 3. Briefly discuss the processes which are included in Project Integration Management.
- 4. What do you mean by resource levelling and smoothing in project management.
- 5. Explain briefly the tools and techniques of project quality management.

GROUP - C

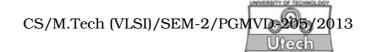
(Long Answer Type Questions)

Answer any *three* of the following.

- $3 \times 15 = 45$
- 6. Briefly discuss the cost estimating methodologies:
 - i) parametric
 - ii) historical bid-based
 - iii) cost based
 - iv) risk-based

What is the difference between top-down and bottom-up techniques of cost estimating?

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- 7. a) Discuss the system development life cycle (SDLC) for software development.
 - b) Explain any one of the common software development models.
- 8. We have planned to take up a project to make 10,000 biscuits over a period of five days (i.e. 2,000 biscuits per day) at a budgeted cost of Rs. 0.05 per biscuit (i.e. total budgeted cost of Rs. 500.00). After the first day of baking, we find that we are able to get only 1,500 edible bisucits (some are burnt and get spoiled) at the actual cost of Rs. 90.00.
 - a) Calculate the schedule variance (SV), cost variance (CV), schedule performance index (SPI), cost performance index (CPI), independent estimate at completion (IEAC); independent schedule at completion (ISAC); and variance at completion (VAC).
 - b) Plot the graph of cost versus times showing the BCWS (PV), BCWP (EV) and ACWP (AC) and also comment on the progress and spending rate of the project after the first day of baking.

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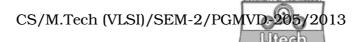
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9. The relevant data about a project is shown below

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Sl.	Activit	Precedence	Normal	Normal	Crashed	Crashed
No.	у	relationship	duration	cost in	duration	cost in
			in days	Rs.	in days	Rs.
1	A	NIL	4	6,000	2	8,000
2	В	A	3	2,000	3	2,000
3	С	В	8	8,000	4	10,000
4	D	В	2	5,000	1	6,000
5	E	В	3	4,500	1	7,500
6	F	D	2	2,000	2	2,000
7	G	С	1	3,000	1	3,000
8	Н	С	6	9,000	4	10,000
9	I	E	3	4,500	2	6,000
10	J	F and I	2	5,000	1	8,000
11	K	G	2	1,500	2	1,500
12	L	H and J	4	3,500	1	5,000
13	M	K and L	3	6,000	2	8,500

a) Draw the network diagram. Find the normal project duration and the critical path.



- b) What is the total project cost if the activities are completed by their normal times?
- c) What will be the total project duration and cost if the project crashed by two days?

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