

TRIBHUVAN UNIVERSITY
INSTITUTE OF ENGINEERING
Examination Control Division
2080 Chaitra

Exam.	Regular		
Level	BE	Full Marks	80
Programme	BEI	Pass Marks	32
Year / Part	III / II	Time	3 hrs.

Subject: - Project Management (CT 658)

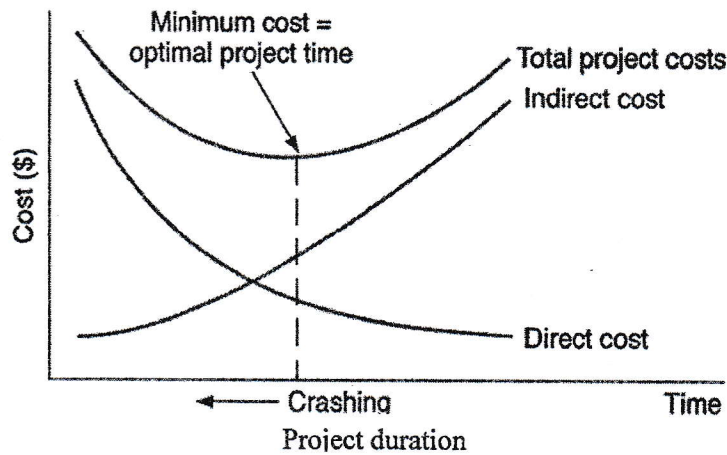
- ✓ Candidates are required to give their answers in their own words as far as practicable.
- ✓ Attempt All questions.
- ✓ The figures in the margin indicate Full Marks.
- ✓ Assume suitable data if necessary.



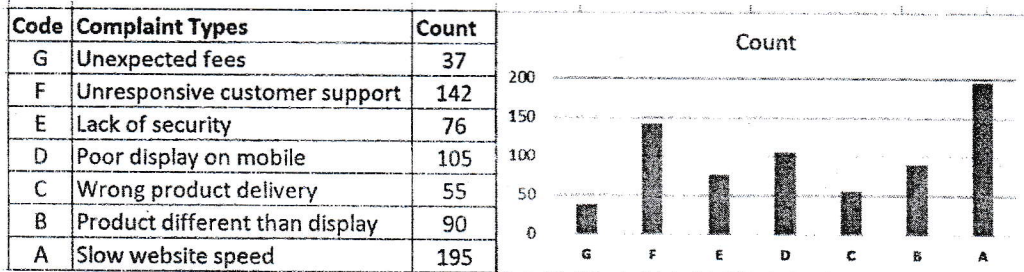
1. a) Discuss briefly the challenges in IT project in Nepal. [4]
 b) One of the famous actors, Bill Cosby, once said "I don't know the key to success but the key to failure is trying to please everybody." How relevant is this statement in the field of IT System Project Management? What are other traits of successful Project Manager? Explain. [6]
2. a) Differentiate and compare among various organizational structures, with examples. [6]
 b) .What is system view of project management? Explain about three sphere model of system management. [6]
3. Imagine you have got the role of Project Manager for a software project that will make personalized and secure access of your semester-end mark-sheet possible. This will relieve Exam Control office for printing semester end marksheet rather students will browse and download semester end mark-sheet as pdf only through either using browser or ECD app.
 a) Prepare a brief project scope document for the above system project work. [7]
 b) While making the process groups, what are the important considerations that you have to manage and take care of? [5]
4. KasthaPur, an innovative company list out the following activities with its duration in week for upcoming project. [10]

Activity	Immediate predecesso	Duration (weeks)	<p>Answer the followings:</p> <p>a) Prepare activity network diagram.</p> <p>b) Calculate the forward pass and backward pass.</p> <p>c) Calculate the Total float and Free float.</p> <p>d) Identify the critical activity and critical path.</p>
A	-	2	
B	A	3	
C	A	5	
D	B	1	
E	A,B	2	
F	C,D	4	
G	E,F	3	

5. Project Crashing is termed as optimal point of trade-off between project cost and project time for any project while assessing delayed or over-run project. Do you agree or not? In any case justify with the help of right-side graph. [6]



6. Consider below data about customer complaint on e-commerce portal and their services. Draw a free-hand sketch of Pareto diagram after having Pareto analysis with clearly showing all necessary calculations. As per Pareto principles, which are the first three complaints should be addressed first? What will be the coverage of issues by these solving such three issues? [6+2]



7. a) Discuss briefly on risk identification techniques. Create a sample risk register of any ICT related project. [2+3]
 b) What do you mean by Project Procurement Management? What are the different processes adopted for procurement in ICT project? [2+3]
8. Compare the followings: [4×3]
 a) Project Cost management versus Earned Value management
 b) Project Manager versus Program Manager as per PMI
 c) KPI versus Balanced scorecard
 d) Formal versus informal communication in PM

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1. Define project. Differentiate between project and operation. [2+2]
2. Define PMBOK. How the external environmental influences on ICT project? [2+3]
3. What is system view of project management? Explain about three sphere Model of system management. [2+3]
4. Describe about functional organization structure. What are the disadvantages of projectized organizational structure? [3+2]
5. Construct a network diagram for this project and find the critical path using data below. Calculate the Late Start, Late Finish and find the total float. [3+1+1+2]

Activities	Predecessor	Duration (days)
A	-	5
B	A	4
C	A	3
D	A	2
E	B	8
F	C	7
G	D	6
H	E, F, G	4

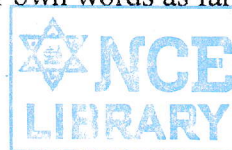
6. Describe about project process groups. [6]
7. Define EVM. Suppose you are the project manager on an IOT project. The project is set to be completed in 10 months with an estimated cost of Rs 500,000. The project has been running for 5 months now, the team has spent Rs 220,000 and completed an amount of work worth Rs 255,000. Calculate CPI and SPI and Share your conclusion. [1+2+2+1]
8. What is Project Integration Management? What type of information should include while making the project charter? [2+3]
9. Why communication management is important in IT project? As a project manager how do you conduct meeting effectively? [3+3]
10. Quality is one of the most important factors to be controlled for effective delivery of project objectives. How quality assurance and quality control are implemented in order to deliver a successful project? [5]
11. Explain about risk management plan. What are the different sources of risk in IT project? [2+3]
12. Explain about procurement management process flow. [2+3]
13. What is balanced scorecard (BSC)? How is it used in Business Organization? [4]
14. Write short notes on: (Any Three) [3×4]
 - a) Need custom processes for IT project
 - b) Project tripple constraints.
 - c) Different quantitative technique of risk analysis
 - d) Future trend of IT projects

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1. a) How can you relate the characteristics of project with your minor project? [4]
- b) Define PMBOK. Explain, how project environment influences on IT project? [1+4]
- c) Define project portfolio management. What are the reasons for failure of the ICT projects? [2+5]
2. a) Explain role and responsibilities of key project members. [6]
- b) What is system view of project management? Explain, how organizational structures influence the IT projects? [2+3]
- c) Explain overlaps of project process groups with clear diagram. [5]
3. a) Define the Project Integration Management. What are the essential information required to create Project Charter? [3+3]
- b) Consider the following table of activities.

Activities	Predecessor	Duration (Days)
A	Start	2
B	A	2
C	A	4
D	B, C	2
E	D	4
F	C	4
G	F	3
H	E, G	1
End	H	None

- (i) Draw the network diagram. [2]
- (ii) Complete the forward and backward passes. [4]
- (iii) What activities are on the critical path? Mark critical path in bold Line. [2]
- (iv) Which activities have Total Slack and Free Slack? [2]
4. a) What is EVM? Calculate the schedule and cost variance for a project whose estimated budget is \$100,000 and estimated time is 50 man months. 5 people were involved in the project. After 7 months, 60% of work was completed and \$80,000 was expended. Also estimate the new cost and time for the project. [2+5]
- b) Quality is one of the most important factors to be controlled for effective delivery of project objectives. How quality assurance and quality control are implemented in order to deliver a successful project? [2+3]
- c) Why communication management is important in IT project? As project manager, how do you write effective email? [2+2]
5. a) What is project risk? Explain about risk management plan. [1+4]
- b) Explain step by step procedure for procurement management process in government/public entity. [7]
- c) Write short notes on: [2×2]
 - (i) Custom processes for IT project
 - (ii) Balanced Score card