



**UNIVERSITY OF PETROLEUM & ENERGY STUDIES
DEHRADUN**

End Semester Examination – May, 2017

Program/course: MBA (PM) + MBA (UID)	Semester	: II
Subject: Project Management & Contract Administration	Max. Marks	: 100
Code : MBCQ 724	Duration	: 3 Hrs.
No. of page/s: 04		

Note: Use of Calculator & graph paper allowed

SECTION – A (20 Marks)

Fill in the blanks. Each blank carries 1 marks.

- 1.1 A _____ is a temporary endeavor to create a unique product, service or result.
- 1.2 A _____ is a graphical model depicting the interrelationship between the various elements of the Project Work System.
- 1.3 _____ of the project is the degree to which a set of inherent characteristics fulfils the project requirements covering all phases & processes from the initiation to the closure of the project.
- 1.4 _____ involves monitoring and recording results of executing the quality activities to assess performance and recommend necessary changes.
- 1.5 WBS stands for _____.
- 1.6 _____ Reserves are not included in the project budget. (Choose the correct option: Management / Contingency)
- 1.7 PERT uses _____ cost estimates to define an approximate range of costs.
- 1.8 _____ models are used to estimate how much the product (or project) will cost based on physical attributes e.g. weight, volume, power, lines of code, price per sq. foot
- 1.9 The cost baseline is usually _____ shaped curve.
- 1.10 The overall project costs broken down into the various major heads like materials, labour, equipment etc. is known as _____.
- 1.11 _____ is acquiring of goods and services required for the project from outside the performing organization.
- 1.12 A _____ is an agreement between two or more parties that is binding on all the parties.

- 1.13 In Fixed Price contract also known as Fixed Price Incentive Fee (FPIF), the seller is given _____ by buyer for exceeding required performance.
- 1.14 The _____ is a structured log that maintains summary of all identified risks that can affect the project along with relevant information to manage the risk.
- 1.15 _____ risk analysis is aimed at prioritizing individual risks viewed one at a time. (Choose the correct option: Quantitative / Qualitative)
- 1.16 Project Risk is an uncertain event or condition that, if it occurs has a positive or negative effect on projects _____.
- 1.17 AACE stands for _____.
- 1.18 _____ integrates cost, schedule and scope and used to forecast future performance and project completion dates.
- 1.19 _____ plays a significant role in developing the initial scope statement and the project charter. (Choose the correct option: Project Sponsor / Project Manager)
- 1.20 The _____ is a thorough examination of the management of project, its methodology and procedures, its records, its budgets and expenditures and degree of completion.

SECTION – B (20 Marks)

Write short notes on any four of the following. Each carries 5 marks.

- 2.1 Project Life Cycle
- 2.2 CPM vs. PERT
- 2.3 Cost of Quality Non-conformance
- 2.4 Cost Engineering
- 2.5 Project Audit Report

SECTION – C (30 Marks)

Attempt any 2 questions. Each question carries 15 marks.

- 3.1 What are the different knowledge areas applied to project management? Also, enumerate different process groups in project management.
- 3.2 Explain the steps of project risk management process in detail. What are the various risk response strategies suited for positive and negative risks?
- 3.3 Mention the names of some Quality Gurus along with their contributions. List various quality tools & techniques and describe any two of them.

SECTION – D (30 Marks)

Attempt any 2 questions. Each question carries 15 marks.

3.1 A project has a budget of Rs.1,20,000 and is planned to be completed in 1 year. The following table shows the cumulative values (in Rs.) for each at the end of indicated month.

Month	Earned Value	Actual Cost
1	6,000	8,000
2	13,000	17,000
3	21,000	26,000
4	30,000	36,000

- (a) Calculate schedule & cost variance at the end of 4th month. Estimate the likely time & cost of completion of project if efficiency remains the same.
- (b) Estimate likely time & cost of completion of project if efficiency becomes 100% from the next month.
- (c) What should be the targeted efficiency to complete the project in time and budget?

3.2 Consider the data of a project shown in the following table.

Activity	Immediate predecessor(s)	Time (days)		Cost (Rs. '000)	
		Normal	Crash	Normal	Crash
A	-	6	4	60	78
B	-	7	4	30	42
C	A	4	1	50	92
D	A	6	5	60	75
E	B,C	7	3	20	68
F	E	3	1	20	40
G	E	7	3	40	56
H	D,F	5	4	30	41

If the indirect cost per day is Rs. 15,000, find the optimal crashed project completion time.

3.3 A project consists of seven activities whose details are shown in following table including immediate predecessor(s), optimistic estimate (a), most likely estimate (m), pessimistic estimate (b) and manpower requirement.

Activity	1-2	1-3	2-6	3-4	4-5	4-6	5-6
Optimistic Time Estimate (a)	2	3	3	1	3	4	5
Most Likely Time Estimate (m)	3	3	5	4	6	7	6
Pessimistic Time Estimate (b)	4	3	7	7	9	10	7
Manpower Requirement	7	8	5	15	11	5	10

(a) Find the critical path and the expected completion time of the project.

(b) Perform resource-levelling and obtain the schedule of the activities and the corresponding manpower requirement diagram such that the peak manpower requirement is minimized.
