

End Semester Examination – May, 2017

Program/course: MBA (Oil & Gas)  
Subject: Project Management and contract administration

Semester – 2

Code : MBCO 724  
No. of page/s: 5

Max. Marks : 100  
Duration : 3 Hrs

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SECTION A

Choose the correct alternative  
Each question carries 1 mark

1. BCWP – BCWS is a measure of
  - a. Cost variance
  - b. Schedule variance
  - c. Critical ratio
  - d. None of above
2. CPI > 1.00 indicates
  - a. Cost underrun
  - b. Schedule underrun
  - c. Cost and schedule underrun
  - d. Cannot say
3. This is NOT an objective of project audit
  - a. Identify scope of improvement
  - b. Judging mistakes of project team
  - c. Reducing project cost
  - d. All above
4. Management reserves are meant for
  - a. Identified risks in specific activities
  - b. Unforeseen activities
  - c. Both of them
  - d. None of them
5. If SPI is 1.2 and Critical ratio is 0.9, the project is
  - a. Cost overrun
  - b. Cost underrun
  - c. On cost
  - d. Cannot say
6. Amount of time by which an activity can be delayed maintaining early start of succeeding activity is called
  - a. Free slack
  - b. Independent slack
  - c. Total slack
  - d. None of above
7. A risk response aimed at reducing impact of risk is called
  - a. transferring
  - b. Mitigating
  - c. Avoiding
  - d. Sharing
8. Reducing the peak requirement of individual resources in an existing schedule is called
  - a. Resource levelling
  - b. Resource scheduling
  - c. Resource loading
  - d. None of above
9. An event which indicates completion of three activities is called
  - a. Merge event
10. Cost performance index is equal to
  - a. BCWP / ACWP
  - b. BCWP / BCWS
  - c. BCWS / BCWP

- b. Simple event
  - c. Burst event
  - d. None of above
11. A task has been completed 50% against scheduled 60%. The budgeted cost of task is Rs 5000. Amount actually spent is Rs 2000. CPI is
- a. 0.6
  - b. 0.8
  - c. 1.25
  - d. 0.75
12. Estimated cost to complete remaining work in question 11 is
- a. Rs 3125
  - b. Rs 3075
  - c. Rs 2500
  - d. None of above
13. In-depth analysis of project performance is termed as
- a. Control
  - b. Monitoring
  - c. Audit
  - d. None of the above
14. A control chart for controlling defectives is called
- a. X bar R chart
  - b. C chart
  - c. P chart
  - d. None of above
15. A project which has been indefinitely delayed is called
- a. Failed Project
  - b. Premature
  - c. Perpetual
  - d. Failed project
16. This is a technique for separating vital few from trivial many
- a. Fishbone diagram
  - b. Scatter diagram
  - c. Pareto analysis
  - d. Control chart
17. In this type of reimbursement of business contracts, the total amount paid to contractor remains fixed
- a. Lump sum
  - b. Cost plus fixed fee
  - c. Item rate contract
  - d. All of these
18. The quality control focusses on
- a. Control of processes
  - b. Inspection of product
  - c. Both a and b
  - d. None of a and b
19. The rate of return which makes the Net present value zero is called
- a. NPV
  - b. IRR
  - c. Payback period
  - d. None of above
20. Selection of a project because it is necessary to keep plant working is on the basis of
- a. Sacred cow
  - b. Competitive necessity
  - c. Operating necessity
  - d. None of above

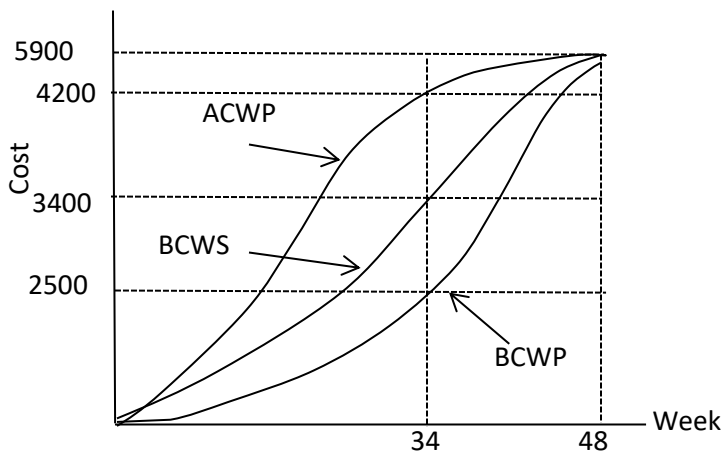
## SECTION B

**Attempt all questions**

**Each question carries 5 marks**

1. Define a project. What are the characteristics of projects
2. Write short notes on following

- a. Application of Gantt chart in project management
  - b. Objectives of a project
3. The expected time of a project is 55 weeks. If the standard deviation of the project is 3 days, what is the probability of project completion between 52 and 57 weeks?
  4. Describe sacred cow model of project selection. How effective this model can be for project selection.
  5. A project involves an investment of Rs 30,000 at the end of each year for 5 years. The returns are Rs. 25000 at the end of each year for 8 years. Calculate the NPV. The rate of interest is 10%.
  6. Explain the stages involved in project life cycle
  - 7 Consider the following cost curves



Determine:

At 34<sup>th</sup> week

on completion

Determine	Determine
CPI	CPI
PI	SPI
Critical ratio	Critical ratio
Cost to complete remaining work after 15 <sup>th</sup>	

### SECTION C

Attempt any three questions

Each question carries 15 marks

- 1 The time estimates and precedence requirements of activities involved in a project are as under.

S. No.	Task code	Immediate Predecessors	Time estimate (days)		
			Optimistic time	Most likely time	Pessimistic time
1	A	-	1	3	5
2	B	-	1	3	11

3	C	A, B	2	5	8
4	D	C	3	4	11
5	E	C	4	7	16
6	F	D	1	2	3
7	G	E	4	6	14
8	H	F, G	1	1	1

Determine the expected time, standard deviation and variance for all activities. What is the probability of project being completed at its expected time?

- 2 Development of a new deluxe version of a particular software product is being considered. The activities necessary for the completion of this project are listed in the table below along with their costs and completion times in weeks.

Activity	Normal Time	Crash Time	Normal Cost	Crash Cost	Immediate Predecessor
A	4	3	2,000	2,600	-
B	2	1	2,200	2,800	A
C	3	3	500	500	A
D	8	4	2,300	2,600	A
E	6	3	900	1,200	B, D
F	3	2	3,000	4,200	C, E
G	4	2	1,400	2,000	F

- (a) What is the project expected completion date?
- (b) What is the total cost required for completing this project on normal time?
- (c) If you wish to reduce the time required completing this project by 1 week, which activity should be crashed, and how much will this increase the total cost?
- 3 What is the importance of audit in project management? Explain the project audit life cycle.
- 4 The data relating to project during various phases is as under. Plot cost curves and assess the project performance.

Period	1	2	3	4	5	6	7
Cumulative Budgeted cost	20,000	45,000	70,000	80,000	90,000	95,000	1,00,000
Cost incurred	25,000	48,000	78,000				

Completion status	15%	25%	40%				
Scheduled completion	20%	32%	48%				

- 5 What are the different forms of reimbursements in project contracts? Which type of reimbursement you would prefer as a project manager and why?