

## Sample Examination Questions

### Question 1

Projects are typically authorized and undertaken as a result of some strategic considerations such as market demand.

- a) Identify 5 of other strategic considerations and discuss with the aid of an example how each prompts management to plan and implement a project. [15]
- b) Write short notes on:
  - i. A project
  - ii. Project sponsor
  - iii. Project Phase
  - iv. Project Portfolio

### Question 2

Gudyanga Holdings is working on a strategic project with the activities and their attributes as shown below:

Activity No.	Duration(weeks)	Predecessors
A	5	-
B	10	A
C	5	B
D	1	B
E	10	C
G	15	C
H	5	C
I	1	E,G
J	2	G
K	2	H,J
M	5	H
N	2	I
O	10	D
P	2	K,M
Q	5	O

- i. Construct a network diagram for the project using the activity-on- the –node method. [10]
- ii. Draw a table to indicate the early start(ES), early finish (EF),latest start (LS) , latest finish (LF) and the float activities B,C,D,E & G. [10]
- iii. Indicate the critical path. [4]
- iv. Due to a delay in receiving materials by a contractor, Activity E has been interrupted by 12 months. By how long will the project be delayed? [3]
- v. If more resources are channelled on Activity E to reduce the duration from 10 months to 9 months, will the project still be delayed? [3]

### Question 3

You are building a 4-sided fence. Each side is of equal length and you estimate that each side will contain the same material and labor costs as well as take the same amount of time to complete. You estimate that the project will take 4 days to complete and your budget, including a contingency reserve is \$4,000. At the end of 3 days, you are asked to prepare an Earned Value calculation in order to determine how the project is progressing. You determine that as of the end of day 3, total costs incurred are \$3,500 and 70% of the project is completed. Calculate the following; BAC, EV, PV, SPI, SV, CPI, CV, EAC, VAC and ETC [10]

### Question 4

You are the project manager on a defense project and are creating a network diagram. Activity A (7 days) and activity B (12days) can start immediately. Activity C (3 days) can start after activity A is complete. Activity D (4 days) and Activity F (3 days) can start after Activity B is complete. Activity E (5 days) can start after activity C and Activity D are complete. Activity G (6 days) can start after Activity D and activity F are complete. When Activity E and Activity G are complete, the project is done.

- What is the critical path?
- What is the slack of activity F?
- If activity D increases from 4 to 5 days, what is the critical path and what its length? [15]

### Question 5

It is a combination of arts, science, Technology, HR, Politics etc. Practicing PM as a pure science is a recipe for failure! Discuss.

### Question 6

- a) Using some project's activities illustrated by the table below:

ACTIVITY	IMMEDIATE PREDECESSOR	ESTIMATED TIME (WEEKS)
A	-	2
B	A	2
C	B	5
D	A	3
E	D	3
F	C, D	1
G	A, F	7
H	F	3
I	G, H	2
J	I	1
K	G, J	4

Draw the Activity-on-Arrow model network diagram. [15]

- Determine and label the slack, the earliest start and earliest finish time. On each node. [15]
- Determine the critical path for the project? [3]

### Question 7

Answer the following in brief:

- i. Project management
- ii. Acceptance sampling
- iii. Expert judgement
- iv. Brainstorming
- v. Delphi technique
- vi. Fast tracking
- vii. Crashing

### Question 8

People make projects work or fail. Justify the importance of good people management in projects [10]

### Question 9

Select a mega project of choice and determine its stakeholders (A-H according to power interest grid in attached notes). Determine each stakeholder's information needs, the frequency with which you need to communicate with them, and mode of communication etc...the gist of it; create a Communications Management Plan for your project's stakeholders. [20]

### Question 10

1. Discuss the typical duties of a Project Manager in an organisation or project of your choice [25]
2. Illustrate the project life cycle [10]
3. Why do projects fail? [15]

### Question 11

- a) Identify and explain any four conflict resolution techniques that a project manager is likely to encounter when managing his team.(10 marks)
- b) Calculate the EVM (earned value management) from the following: 0.4 probability of \$8000, 0.3 probability of -\$4500, 0.2 probability of \$3000, 0.1 probability of \$500 (5 marks)

### Question 12

Define the following terms as they are used in the project risk management domain (2 marks for each)

- a) Risk averse
- b) Watchlist
- c) Delphi technique
- d) Monte carlo analysis
- e) Reserve analysis

### Question 13

- a) Discuss any five risk response strategies

- b) During the identify risk process, the project manager and the team categorize risks in an effort to determine risks they may have missed. Within a project explain any four ways that risks can be grouped. [5]
- c) With the aid of sketches, discuss the perceptions that exist amongst people on risk utility. [9]

#### **Question 14**

Discuss the importance of probability and impact matrix. When is it used and what information does it relay.

#### **Question 15**

Using clearly labelled diagrams, distinguish between a Work Breakdown Structure (WBS) and a Resource Breakdown Structure (RBS) for the same identified project.

#### **Question 16**

a) Define the following terms:

- i. Contingency plan,
- ii. Fallback plan,
- iii. Contingency reserve,
- iv. Force majeure,
- v. Design risk,
- vi. Political risk.

[6]

b) Discuss the three (3) types of dependences that exist among project activities [6]