Q1.

Activity	Preceding Activity	Time (weeks)
A	None	10
B	None	7
C	A	5
D	A	7
E	B	11
F	C	3
G	D, E	5

(a) Draw the network diagram.

(b) Identify all the possible paths and its corresponding duration.

(c) Find the critical path and how long it takes to complete the project.

(d) How would the project be affected if task D was delayed by 3 weeks?

Q2. Below is the precedence rule for Project Walking-Q on gathering user requirements:

Activity	Activity Description	Preceding Activity	Duration (Weeks)
A	Write objectives	-	1
B	Determine whom to interview	A	1
C	Write questions	B	2
D	Prepare interviewee	B	1
E	Interview senior management	C, D	3
F	Interview operations management	C, D	4
G	Record and analyze observations	C, D	2
H	Summarize management interviews	E	1
I	Summarize operations interviews	F	2

(a) Draw a network diagram using Activity-On-Arrow (AOA) method.

(b) List all the possible path(s) and its corresponding duration(s).

(c) For Project Walking-Q:
- (i) State the shortest project completion time.
- (ii) State the critical path(s).
- (iii) What are the overall implication(s) if activity "Prepare interviewee" was unexpectedly behind schedule by ONE(1) week?

Q3.

(a) Below is the precedence rule for Project Eco-Environment.

Activity	Activity Description	Preceding Activity	Duration (Week)
A	Collect user requirements	-	5
B	Analyze and design documentation	A	3
C	Analyze processes and data	A	4
D	Design data	C	6
E	Design Screen	B, C	4
F	Design reports	D	1
G	Program and coding	D, E, F	5

i) Draw a network diagram using Activity-On-Arrow (AOA) method.

ii) List all the possible path(s) and its corresponding duration(s).

iii) For Project Eco-Environment:

(a) State the shortest project completion time.

(b) State the critical path(s).

(c) What are the overall implication(s) if :

- The duration for activity "Analysis and Design documentation" was late by a week **AND**
- Activity "Design Screen" was delayed by THREE (3) weeks