Critical Path Method

1.

A project schedule has the following characteristics.

Activity	*1–2*	*1–3*	*2–4*	*3–4*	*3–5*	*4–9*	*5–6*	*5–7*	*6–8*	*7–8*	*8–10*	*9–10*
Time (days)	4	1	1	1	6	5	4	8	1	2	5	7

From the above information, you are required to:

1. Construct a network diagram.
2. Compute the earliest event time and latest event time.
3. Determine the critical path and total project duration.
4. Compute total and free float for each activity.

2.

A small maintenance project consists of the following jobs, whose precedence relationships are given below.

Job	*1–2*	*1–3*	*2–3*	*2–5*	*3–4*	*3–6*	*4–5*	*4–6*	*5–6*	*6–7*
Duration (days)	15	15	3	5	8	12	1	14	3	14

1. Draw an arrow diagram representing the project.
2. Find the total float for each activity.
3. Find the critical path and the total project duration.