※ 考生請注意：本試題不可使用計算機。　請於答案卷(卡)作答，於本試題紙上作答者，不予計分。

1. Who is Frederick W. Taylor? What are his contributions to management? (12%)

2. What is Hawthorne effect? How does it influence management? (12%)

3. Suppose an organization is downsizing and laying off many of its middle managers. Some top managers charged with deciding whom to terminate might decide to keep the subordinates they like, and who are obedient to them, rather than the ones who are difficult or the best performers. They might also decide to lay off the most highly paid subordinates even if they are high performers. Think of the ethical issues involved in designing a hierarchy, and answer the following questions.
    a. What ethical rules should managers use to decide which employees to terminate when redesigning their hierarchy? (8%)
    b. Some people argue that employees who have worked for an organization for many years have a claim on the organization at least as strong as that of its shareholders. What do you think of the ethics of this position – can employees claim to "own" their jobs if they have contributed significantly to the organization's past success? How does a socially responsible organization behave in this situation? (18%)

4. Briefly describe the essence of "Total Quality Management" and "Six Sigma" respectively. Compare and contrast their similarity and difference. (20%)

5. In a hardware store, the demand for a part is 300 per month. The ordering cost is $10 per order placed. The carrying cost is 20 percent per year, and each unit costs $100.
    a. What is the economic order quantity for this part? (5%)
    b. How often should this part be ordered per month? (5%)

6.　A list of activities, immediate predecessors, and activity time for a project is given below:

Activity	Immediate Predecessor	Activity Time
A	-	10
B	-	14
C	A	11
D	B	5
E	B	15
F	B	20
G	C, D	8
H	C, D	12
I	G	16
J	E, H	10
K	E, H	21
L	E, H	6
M	I, J	9
N	F, L	12

a.　Draw an activity-on-arc network diagram. (8%)

b.　Find the critical path(s). (7%)

c.　Find the total float time on activity F. (5%)