1. A researcher wishes to see if there is difference between the two weight reduction drugs A and B. He selects people of same weight and randomly divide them into two groups. He then by keeping the other conditions same gives one group drug A and other group drug B and observes their weights after the drugs are given.

Drug A	Drug B
72	71
68	83
69	89
66	57
57	68
66	74
70	75
63	67
71	80
73	78

Which two sample t test he should perform and what should be the conclusion at 1% significance level?

A. Two sample t test assuming equal variance, The drugs do not have same affect

B. Two sample t test assuming equal variance, There is no evidence to believe that one drug is better than the other.

C. Paired t test, The drugs have same affect

D. Paired t test, The drugs have different affect

2. A survey claims that there is difference in the income of people between the city A and city B. To test the claim people working at the same levels are selected from both the cities.

City A	City B
42	43
45	51
40	56
37	40
41	32
41	54
48	51
50	55
45	50
46	48

Which two sample t test should be performed and what should be the conclusion at 8% significance level?

A. Paired t test, There is no difference in income according to the cities.

B. Paired t test, There is a difference in income according to the cities.

C. Two sample t test assuming equal variance, there is a difference in income according to the cities.

Two sample t test assuming equal variance, there is no reason to believe that there is a difference in income according to the cities

3. The data below are the random sample of 10 banks chosen randomly. The data shows average earning per share in year 2001 and 2002 for the banks.

2001	2002
1.58	2.68
1.46	1.7
3.84	4.79
3.7	3.26
2.67	2.31
3.41	3
1.25	1.79
2.18	1.12
2.92	0.67
2	0.97

Which two sample t test should performed if we want to test whether the average earning per share has increased and what should be the conclusion at 10% significance level?

A. Two sample t test assuming unequal variance, there is no difference in the averages

B. Two sample t test assuming equal variance, there is no difference in the averages

C. Paired t test, there is no difference in the averages

D. Paired t test, there is difference in the averages

4. In hypothesis testing the significance level is

A. Always set as 0.05

B. Always set as 0.10

C. Always set as 0.01

D. Depends upon the problem