

1. 4 variables pla file

(1) Function

```
D:\程式\大二上\digital_system>robdd case1.pla robdd.dot
F = a'bd' + bcd + ac'd' + ab'c'd'
```

(2) Pla file

```
.i 4
.o 1
.ilb a b c d
.ob F
.p 4
01-0 1
-111 1
1-00 1
1000 1
.e
```

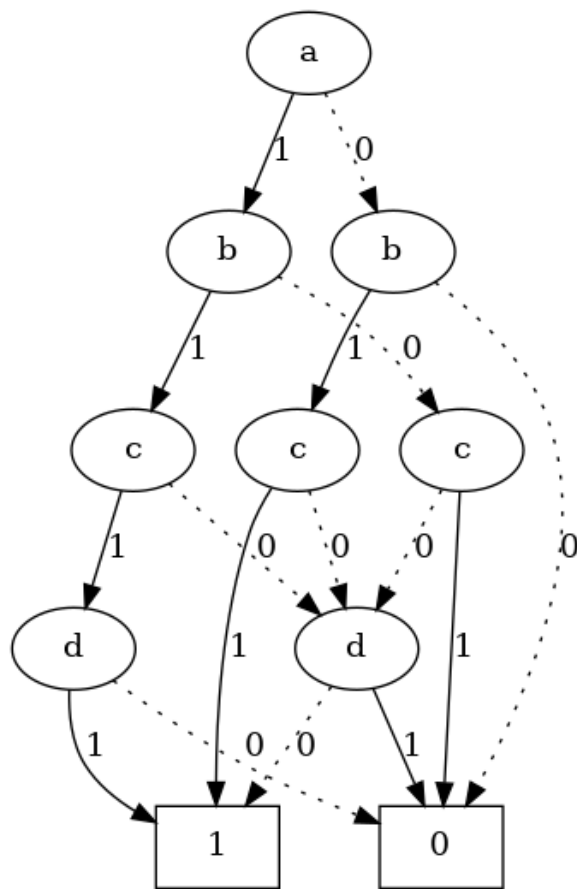
(3) Dot file

```
digraph ROBDD {
{rank=same 1}
{rank=same 2 3}
{rank=same 5 6 7}
{rank=same 10 15}

0 [label="0", shape=box]
1 [label="a"]
2 [label="b"]
3 [label="b"]
5 [label="c"]
6 [label="c"]
7 [label="c"]
10 [label="d"]
15 [label="d"]
16 [label="1", shape=box]

1 -> 2 [label="0", style=dotted]
1 -> 3 [label="1", style=solid]
2 -> 0 [label="0", style=dotted]
2 -> 5 [label="1", style=solid]
3 -> 6 [label="0", style=dotted]
3 -> 7 [label="1", style=solid]
5 -> 10 [label="0", style=dotted]
5 -> 16 [label="1", style=solid]
6 -> 10 [label="0", style=dotted]
6 -> 0 [label="1", style=solid]
7 -> 10 [label="0", style=dotted]
7 -> 15 [label="1", style=solid]
10 -> 16 [label="0", style=dotted]
10 -> 0 [label="1", style=solid]
15 -> 0 [label="0", style=dotted]
15 -> 16 [label="1", style=solid]
}
```

(4) Robdd picture



2. 5 variables pla file

(1) Function

```
D:\程式\大二上\digital_system>robdd case2.pla robdd2.dot
F = ab'cde' + ade' + ac + c'e' + a'bd'e' + ab'
```

(2) Pla file

```
.i 5
.o 1
.ilb a b c d e
.ob F
10110
1--10
1-1--
--0-0
01-00
10---
.e
```

(3) Dot file

```

digraph ROBDD {
  {rank=same 1}
  {rank=same 2 3}
  {rank=same 4 5 7}
  {rank=same 11}
  {rank=same 16}

  0 [label="0", shape=box]
  1 [label="a"]
  2 [label="b"]
  3 [label="b"]
  4 [label="c"]
  5 [label="c"]
  7 [label="c"]
  11 [label="d"]
  16 [label="e"]
  32 [label="1", shape=box]

  1 -> 2 [label="0", style=dotted]
  1 -> 3 [label="1", style=solid]
  2 -> 4 [label="0", style=dotted]
  2 -> 5 [label="1", style=solid]
  3 -> 32 [label="0", style=dotted]
  3 -> 7 [label="1", style=solid]
  4 -> 16 [label="0", style=dotted]
  4 -> 0 [label="1", style=solid]
  5 -> 16 [label="0", style=dotted]
  5 -> 11 [label="1", style=solid]
  7 -> 16 [label="0", style=dotted]
  7 -> 32 [label="1", style=solid]
  11 -> 16 [label="0", style=dotted]
  11 -> 0 [label="1", style=solid]
  16 -> 32 [label="0", style=dotted]
  16 -> 0 [label="1", style=solid]
}

```

(4) Robdd picture

