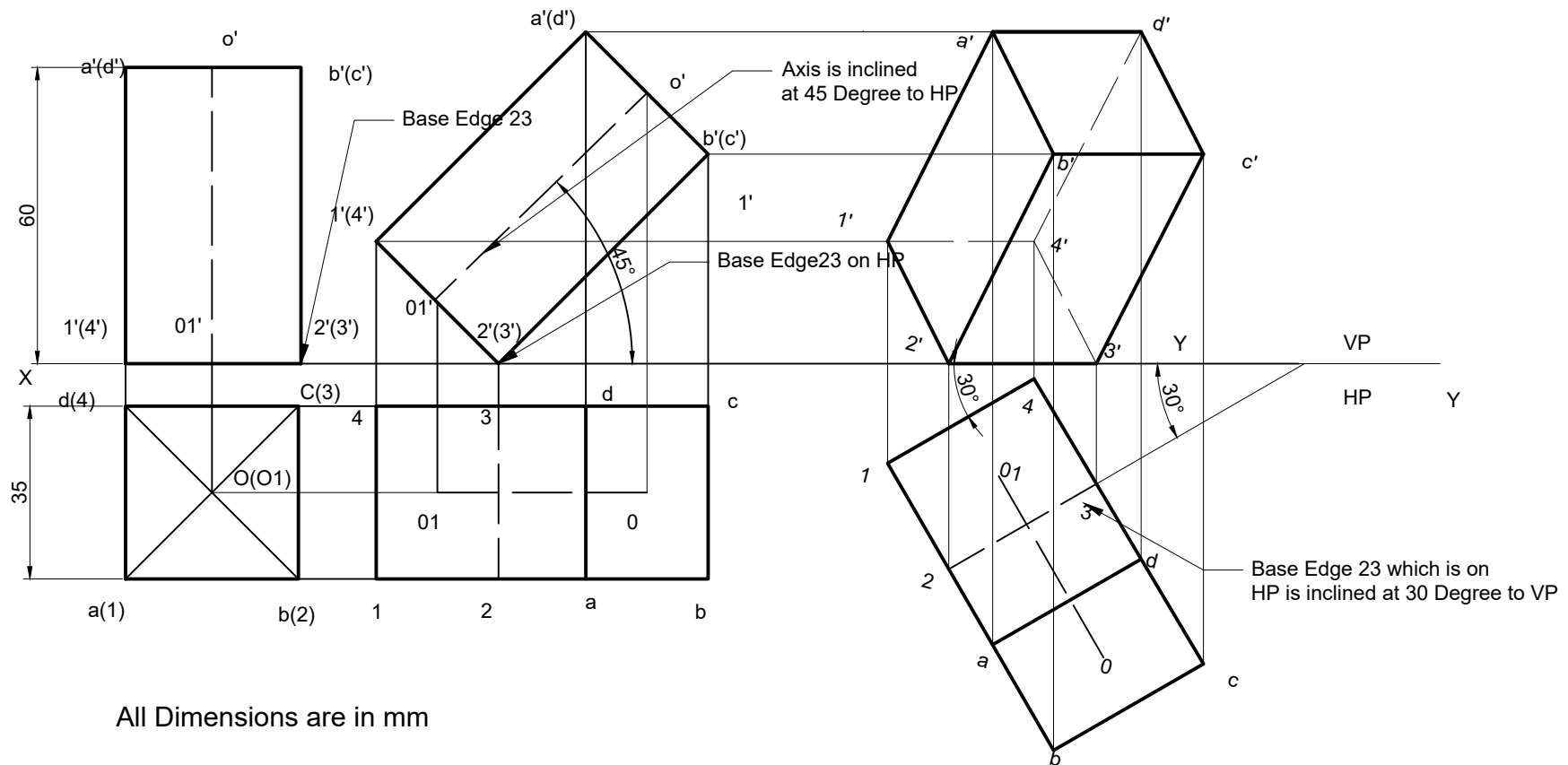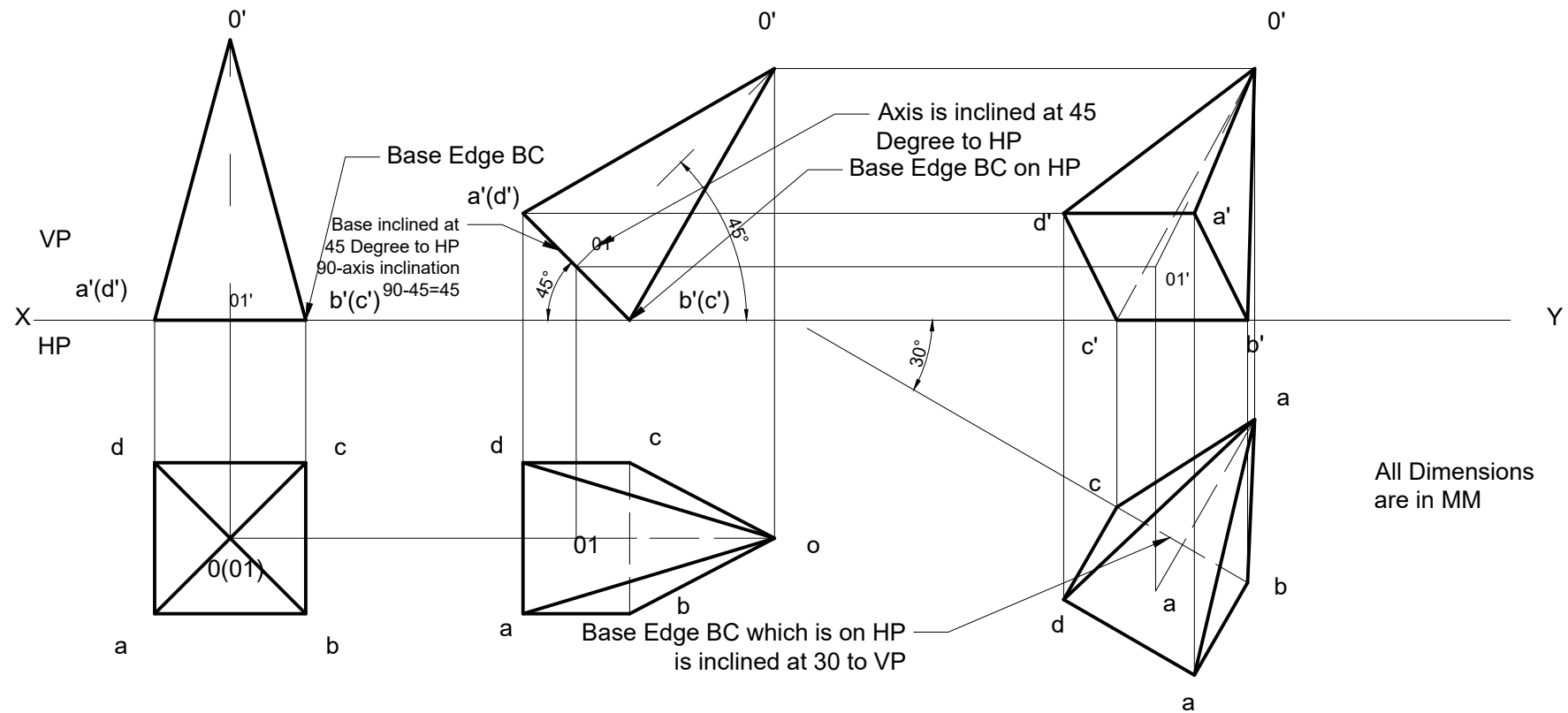1. A square prism, base 35mm side and height 60mm, has its axis inclined at 450 to HP and has an edge of its base on the HP and inclined at 30degree to VP. Draw its projections.

o'

a'(d')

b'(c')

Base Edge 23

a'(d')

o'

Axis is inclined
at 45 Degree to HP

b'(c')

a'

d'

c'

1'

1'

4'

b'

60

1'(4')

01'

2'(3')

01'

2'(3')

45°

Base Edge23 on HP

2'

3'

30°

Y

30°

VP

HP   Y

X

d(4)

C(3)

4

3

d

c

4

01

3

d

c

O(O1)

01

0

1

2

a

b

1

2

3

0

a

35

b

a(1)

b(2)

1

2

a

b

Base Edge 23 which is on
HP is inclined at 30 Degree to VP

All Dimensions are in mm

2. A regular square pyramid having 35mm base side and 65mm axis length rests on HP on one of its edges of the base which is inclined to VP at 30° and the axis is inclined to HP at 45°. Draw the projections.

0'

0'

0'

Axis is inclined at 45
Degree to HP
Base Edge BC on HP

Base Edge BC

a'(d')

VP

Base inclined at
45 Degree to HP
90-axis inclination

d'

a'

a'(d')

01'

b'(c') 90-45=45

45°

01'

X ——— Y

HP

45°

b'(c')

c'

b'

30°

a

d

c

d

c

All Dimensions
are in MM

c

01

0(01)

01

o

d

a

b

a

b

Base Edge BC which is on HP
is inclined at 30 to VP

a

b

a

a

3.A square prism 30 mm sides of base and 50 mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests makes equal inclination with HP. Draw the projections of the prism when the axis of the prism is inclined to HP at 40° and appears to be inclined at 45° to VP

Base is inclined at 50 to HP (90-Axis inclination)
90-40=50

Axis is inclined at 40 Degree to HP

Base Corner 3 On HP
2'(4')

a'

a'

a'   b'(d')   c'

o'

b'(d')
o'

o'   b'

d'

1'

Base Corner3

1'

50

X

50

2'(4')

4'

2'

c'

VP

1'   01'   2'(4')   3'

01'
2'(4')
40°

4'

01'

3'

3'

3'
d

45°

Y

HP

c

Axis appears to be inclined at 45 Degree to VP

d(4)

4

d

4

0(01)   c(3)

01

o
c

3

a

a

b

30   30

1

3
a

01

All Dimensions are in MM

b(2)

b

1   2
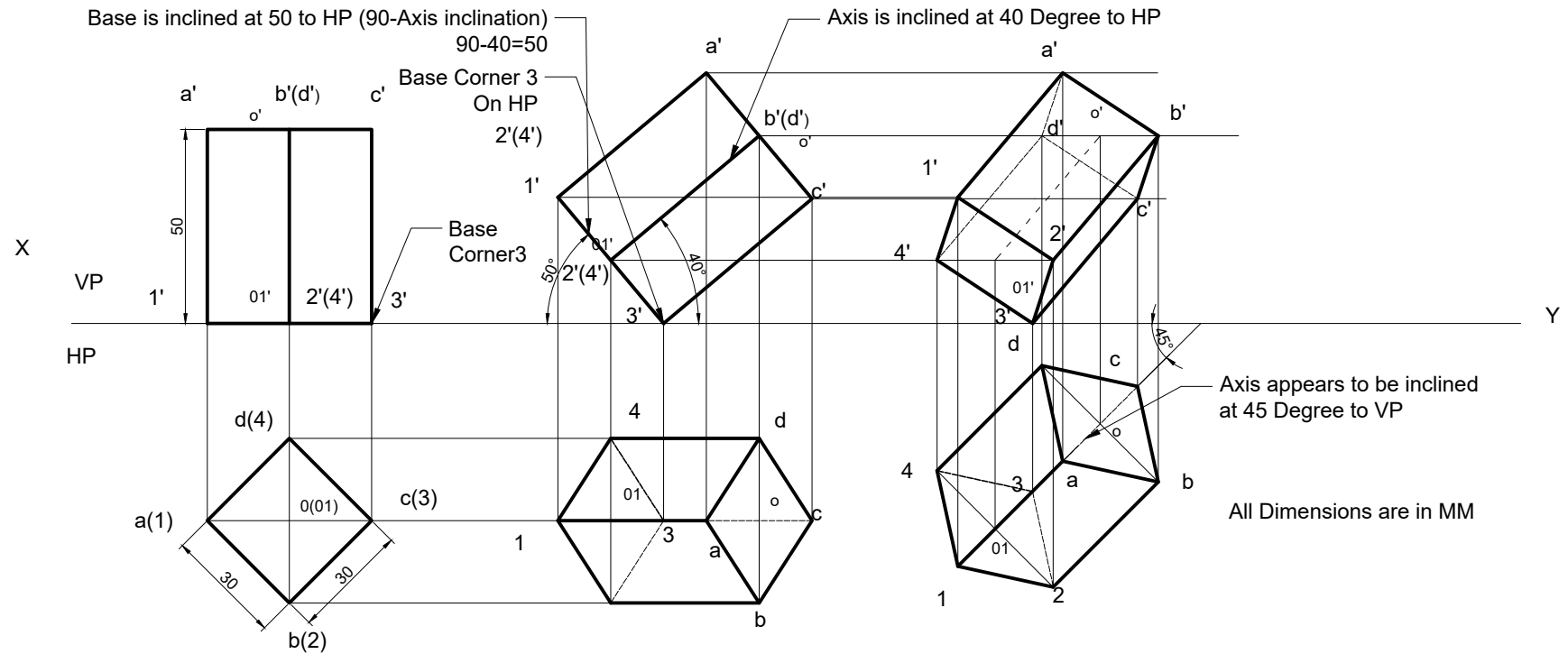
4 A square pyramid 35mm sides of base and 60mm axis length rests on HP on one of its corners of the base such that the two base edges containing the corner on which it rests make equal inclinations with HP. Draw the projections of the pyramid when the axis appears to be is inclined to HP at 35° and to VP at 40°

O'

Base Corner C

Axis is inclined at
35 Degree to HP

Base corner C is on HP

O'

O'

Base is inclined
at 55 to HP
90-axis inclination
90-35=55

a'

a'

60

a'

0'(01')

b'

55°

d'

VP

a'

0'(01')   b'(d')

c'

b'(d')

35°

c'

b'(d')

X —— Y

HP

d

c'

c

d

40

o

a

0(01')

c

a

c

d

c

01

o

a

35

35

01

01

a

Axis appears to be
inclined 40 Degree to VP

b

b

b