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2.4 MC/87 DT. ☐☐ ☐☐ ☐☐☐☐ 

Qn: IV

(i) 7, 6, 5, 4, 4, 3, 21 odd

in this case the no. of degree vertices = 4

and max degree ⇒ n-1 ⇒ 7.

we use Havel Hakimi theorem;

7 6 5 4 4 3 2 1

4 3 3 2 1 0

2 2 1 0 0

1 0 0 0

0 0 0 0

Hence this is possible.

(ii) 6 6 6 6 3 3 2 2

max degree = 6

and no. of odd deg. vertices = 2

6 6 6 6 3 3 2 2

5 5 5 2 2 1 1

4 4 1 1 0 0

Spiral

DT. ☐☐ ☐☐ ☐☐☐☐

(19) IV

Q: 2 6 6 6 6 3 3 2 2

and max degree = 6
and no. of odd deg. vertices = 2

Now:

6 6 6 3 3 2 2

5 5 2 2 1 2

4 1 1 1 1

3 0 0 0 1

Not possible

Qn: 3) 7 6 6 4 4 3 2 2

max. degree = 7
no. of odd = 2

6 6 4 4 3 2 2

5 3 3 2 1 1

2 2 1 0 1

1 0 0 0

0 0 0 0

possible

DT. ☐☐ ☐☐ ☐☐☐☐

IV. - 4 8 7 7 6 4 2 1 1

no. of odd degree vertices = 4 ✓

max degree = 8 ✗

max deg. 8 is not allowed because

the max can be 8-1 ie 7

So; we have only 7 vertices

ahead of degree 8.

Therefore

Not possible