O.E.W
7.5.21

EX-5(F)

(1) i) $1 \times 9 + 1 = 10$
$12 \times 9 + 2 = 110$
$123 \times 9 + 3 = 1110$

ii) $9 \times 9 + 7 = 88$
$98 \times 9 + 6 = 888$
$987 \times 9 + 5 = 8888$

iii) $1 \times 8 + 1 = 9$
$12 \times 8 + 2 = 98$
$123 \times 8 + 3 = 987$

iv) $111 \div 3 = 37$
$222 \div 6 = 37$
$333 \div 9 = 37$

Solution:-

i) $1234 \times 9 + 4 = 11110$
$12345 \times 9 + 5 = 111110$
$123456 \times 9 + 6 = 1111110$

ii) $9876 \times 9 + 4 = 88888$
$98765 \times 9 + 3 = 888888$
$987654 \times 9 + 4 = 888888$

iii) $1234 \times 8 + 4 = 9876$
$12345 \times 8 + 5 = 98765$
$123456 \times 8 + 6 = 987654$

iv) $444 \div 12 = 37$ / $555 \div 15 = 37$ / $666 \div 18 = 37$

2) i) $6+7+2=15$
$2+5+8=15$
$8+3+4=15$
$6+2+8=15$
$7+5+3=15$
$2+9+4=15$
$6+5+4=15$
$2+5+8=15$
Hence, is the magic square is 15.

ii) ~~$4+9+8=21$~~
~~$11+7+3=21$~~
~~$4+11+6=21$~~

ii) $4+9+8=21$
$12+7+3=21$
$6+5+10=21$
$4+11+6=21$
$9+7+5=21$
$8+3+10=21$
$4+7+10=21$
$8+7+6=21$
Hence, the magic square is 21.

iii) $16+2+12=30$
$6+10+14=30$
$8+18+4=30$
$16+6+8=30$
$2+10+18=30$
$12+14+04=30$
$16+10+4=30$
$12+10+8=30$
Hence, the magic square is 30

3. i) 1st hig / n = 1
no. of matchsticks = S = 3n + 4 + 7.
= 3 X 1 + 4

2nd hig n = 2
~~3 + 4 = 3~~ 3n + 4

ii) 1) 15th higure has 3X15 + 4 = 49 matches

2) 40th higure has 3X40 + 4 = 124 matches

iii) It is clear that each time the higure (n) is increased by 4, the number of Matches (S) are increased by 3.

④ i) |||| ||

ii)

N	1	2	3	4	5
L	2	4	6	8	10

iii) HENCE the value of L is = L = 2n

iv) 1) Number of Matchsticks in 12th higure = 2X12 = 24

2) Number of Matchsticks in 20th higure = 2X20 = 40

5.a) i) F = 3n + 2
ii) 50 and 92

b) i) F = 4n + 1 ii) 65 and 121

c) i) F = 5n + 3
ii) 83 and 53

d) i) F = 5n + 1
ii) 81 and 151

e) i) F = 4n + 1 ii) 65 and 121

f) i) F = 4n - 2 ii) 62 and 126