Ex- 9(C)

1) i) 352

A) The last number is 2

So, 352 is divisible by 2

ii) 523

A) The last number is 3

So, 523 is not divisible by 2

iii) 496

A) The last number is 6

So, 496 is divisible by 2

iv) 649

A) The last digit is 9 that is not divisible by 2

So, 649 is not divisible by 2

1) i) 64M3
6+4+M+3
13+M = 3, 6, 9, 12, 15, 18, 21 ....
13+M = 15
M+3-13 = 10 M = 15-13 = 2
M = 10
M = 2

ii) 46M46
A→ Sum of digits = 46+M+4+6
= 20+M

20+M = 3, 6, 9, 12, 15, 18, 21, 24, 27, 30

20+M = 21
M = 21-20 = 1
M = 1

iii) 27M53
A→ 2+7+M+5+3
= 17+M = 3, 6, 9, 12, 15, 18, 21 ....
= 17+M = 18
M = 18-17
M = 1

2) i) 222
A→ The lasst two digit is 22 that is not divisible by 4
So, 222 is not divisible by 4

ii) 532
A→ The last two digit is 532 that is divisible by 4
so, 532 is divisible by 4

iii) 678
A→ The last two digit is 78 that is not divisible 4
So, 678 is not divisible by 4

iv) 9232
A→ the last two digit is 32 that is divisible by 4
So, 9232 is divisible by 4

3) i) 324
A→ The last three digit is 324 that is not divisible by 8
Therefore, 324 is not divisible by 8

ii) 2536
A→ The last three digit is 536 that is divisible by 8
So, 2536 is divisible by 8

iii) 92760
A→ The last three digit it's 760 that is divisible by 8
So, 92760 is divisible by 8

iv) 444320
A→ The last three digit 320
that is divisible by 8
So, 444320 is divisible by 8

4i) 221
A→ The sum of the digit = 2+2+1 = 5
5 is not divisible by 3
So, 221 is not divisible by 3

ii) 543
A→ The sum of the digit = 5+4+3 = 12
12 is divisible by 3
So, 543 is divisible by 3

iii) 28492
A→ The sum of the digit = 2+8+4+9+2 = 25
25 is not divisible by 3
So, 28492 is not divisible by 3

iv) 92349
A→ The sum of the digit = 9+2+3+4+9 = 27
27 is divisible by 3
So, 92349 is divisible by 3

5i) 1332
A→ The sum of the digit = 1+3+3+2 = 9
9 is divisible by 9
So, 1332 is divisible by 9

ii) 53247
A→ The sum of the digit = 5+3+2+4+7
= 21
21 is not divisible by 9
So, 53247 is not divisible by 9

iii) 4968
A→ The sum of the digit = 4+9+6+8 = 27
27 is divisible by 9
So, 4968 is divisible by 9

iv) 200314
A→ The sum of digit = 2+3+1+4 = 10
10 is not divisible by 9
So, 200314 is not divisible by 9

6i) 324
A→ It is divisible by 2 and 3
So, 324 is divisible by 6

ii) 2010
A→ It is divisible by 2 and 3
So, 2010 is divisible by 6

iii) 33278
A→ It is divisible by 2 but not divisible by 3.
So, 33278 is not divisible by 6

iv) 20034

A→ It is divisible by 2 but not divisible by 3.
So, 20034 is not divisible by 6

7) i) 5080

A→ The last digit is 0
So, 5080 is divisible by 5

ii) 66666

A→ The last digit is 6
6 is not divisible by 5
So, 66666 is not divisible by 5

iii) 755

A→ The last digit is 5
5 is divisible by 5
So, 755 is divisible by 5

iv) 9207

A→ The last digit is 7
7 is not divisible by 5
So, 9207 is not divisible by 5

8) i) 9990

A→ The last digit is 0
So, 9990 is divisible by 10

ii) 0

A→ The last digit is 0
So, 0 is divisible by 10

9) iii) 847

A→ The last digit is 7
So, 847 is not divisible by 10

iv) 8976

A→ The last digit is 6
So, 8976 is not divisible by 10

9) i) 5918

A→ 5 9 1 8
The sum of odd place = 5 + 1 = 6
The sum of even place = 9 + 8 = 17
17 - 6 = 11
So, 5918 is divisible by 11

ii) 68717

A = 6 8 7 1 7
The sum of odd place = 6 + 7 + 7 = 20
The sum of even place = 8 + 1 = 9
20 - 9 = 11
So, 68717 is divisible by 11

iii) 3882

3 8 8 2
The sum of odd place = 3 + 8 = 11
The sum of even place = 8 + 2 = 10
11 - 10 = 1
So, 3882 is not divisible by 11

Ex-9(C)

9 iv) 10857

A) 10857

The sum of odd place = 1+8+7 = 16

The sum of even place = 0+5 = 5

16-5 = 11

So, 10857 is divisible by 11.

10) i) 960

A) It is divisible by 3 and 5

so, 960 is divisible by 15

ii) 8295

A) It is divisible by 3 and 5

So, 8295 is divisible by 15

iii) 10243

A) It is not divisible by 3 and 5

so, 10243 is not divisible by 15

iv) 503

A-It is divisible by 3 by not divisible by 5

So, 503 is not divisible by 15

12 i) 76M91

The sum of digit = 7+6+M+9+1

= 23+M = 9, 18, 27, 36, 45 ....

= 23+M = 27

= M = 27-23

= M = 4

ii) 77548M

The sum of the digit = 7+7+5+4+8+M = 31+M

= 31+M = 9, 18, 27, 36, 45 ....

31+M = 36

M = 36-31 = 5

M = 5

iii) 6827M9

The sum of the digit = 6+8+2+M+9 = 24+M

= 24+M = 9, 18, 27, 36, 45 ....

24+M = 27

M = 27+24 = 3

M = 3

13 i) 39M2

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39M2

The sum of odd number = 3+M

The sum of even number = 9+2 = 11

Hence 3+M = 11

M = 11-3 = 8

M = 8

ii) 3M422
3M422
The sum of odd place = 3+4+2=9
The sum of even place = 2+M=2+M
Hence 2+M=9
M=9-2=7
M=7

iii) 70975M
70975M
The sum of odd place = 7+9+5=21
The sum of even place = 0+7+M=7+M
∴ 21-10=10
7+M=10
M=10-7
M=3

iv) 14M75
14M75
The sum of odd place = 1+M+5=6+M
The sum of even place = 4+7=11
Hence 6+M=11
M=11-6=5
M=5

14) i) If a number is divisible by 4, it is divisible by 8. F
ii) If a number is a factor of 16 and 24, it is a factor of 48. T
iii) If a number is divisible by 18, it is divisible by 3 and 6. T
iv) If a divider both b and c completely, then a ~~divider~~ divider
i) a+b ii) a-b also completely. T