

ROJGAR WITH ANKIT

Number System

PART-5

(1). $\underline{2} + \underline{\quad} + \underline{\quad} = \text{Even/सम}$

(2). $\underline{2} + \underline{\quad} + \underline{\quad} + \underline{\quad} = \text{Odd/विषम}$

✱ **इकाई का अंक**
(UNIT Digit)

→ 24312
↳ unit digit

2478.1935

place value:

7 → 70

2 → 2000

9 → .09

5 → .0005

⇒ $24 \times 23 \times 72 \times 119 \times 148 \times 107 = \textcircled{6}$

⇒ $25 \times 26 \times 27 \times 28 \times 119 \times 142 \times 131 = \textcircled{0}$

⇒ $25 \times 113 \times 117 \times 121 \times 339 \times 403 = \textcircled{5}$

5 5 5 5 5

घात/Powers

✱ इकाई अंक ⇒ 1, 5, 6, 0

↳ power का कोई फर्क नहीं पड़ता।

Eg.:

$(11)^{533} = 1$	$(216)^{819} = 6$
$(255)^{1029} = 5$	$(515)^{100000} = 5$
$(816)^{113} = 6$	$(811)^{9083} = 1$
$(520)^{943} = 0$	

✱ इकाई अंक ⇒ 4

(—4) ^{सम/Even} = 6

(—4) ^{विषम/Odd} = 4

Eg.:

$4^2 = 16$
 $4^1 = 4$

ROJGAR WITH ANKIT

* इकाई अंक $\Rightarrow 9$

$$(\text{---}9)^{\text{राम/Even}} = 1$$

$$(\text{---}9)^{\text{विषम/Odd}} = 9$$

Eg: $9^2 = 81$

$$9^4 = 9$$

* इकाई अंक $\Rightarrow \boxed{2, 3, 7, 8}$

a) power/4
b) शेषफल बचे उसे unit digit पर लगा देनी है, वही आपका answer होगा।

i) $(424)^{98} = 6$		$(1029)^{513} = 9$
ii) $(134)^{431} = 4$		$(119)^{816} = 1$
iii) $(234)^{9082} = 6$		$(2199)^{833} = 9$
iv) $(104)^{1000} = 6$		$(2109)^{1034} = 1$

c) अगर power पूरी-2 Divide हो जाती है, तो unit digit पर power 4 लगा देंगे।

Ques: $(811)^{983} \times (266)^{543} \times (104)^{892}$
 $1 \times 6 \times 6$
 $\Rightarrow \boxed{6} \text{ Ans}$

Eg: $\Rightarrow (232)^{\frac{47}{4}^3}$
 $(2)^3 \Rightarrow \boxed{8}$

$\Rightarrow (117)^{\frac{39}{4}^3}$
 $(7)^3 \Rightarrow \boxed{343}$

$\Rightarrow (118)^{\frac{29}{4}^1}$
 $(8)^1 \Rightarrow \boxed{8}$

$\Rightarrow (213)^{\frac{50}{4}^2}$
 $(3)^2 \Rightarrow \boxed{9}$

ROJGAR WITH ANKIT

* नि०लि० में इकाई अंक बात कीजिए-

$$(1). (22) \frac{18^2}{4} = (2)^2 = 4$$

$$(2). (212) \frac{90^2}{4} = (2)^2 = 4$$

$$(3). (322) \frac{48^0}{4} = (2)^4 = 6$$

$$(4). (237) \frac{93^1}{4} = (7)^1 = 7$$

$$(5). (517) \frac{82^2}{4} = (7)^2 = 49$$

$$(6). (827) \frac{84^0}{4} = (7)^4 = 1$$

$$(7). (218) \frac{12^0}{4} = (8)^4 = 6$$

$$(8). (228) \frac{94^3}{4} = (8)^3 = 2$$

$$(9). (1028) \frac{44^0}{4} = (8)^4 = 6$$

Imp Ques

$$1). (213) \frac{557^{14}}{4} \times (412) \frac{819^3}{4} \times (624)^{312}$$

$$3 \times 8 \times 6 \Rightarrow 4 \text{ Ans}$$

$$2). (511) \frac{639}{1} \times (816) \frac{963}{6} \times (1029)^{971}$$

$$1 \times 6 \times 9 \Rightarrow 4 \text{ Ans}$$

$$3). (410)^{919} \times (413)^{827} \times (512)^{763} \times (324)^{804} \Rightarrow 0 \text{ Ans}$$

ROJGAR WITH ANKIT

$$4). (825)^{943} \times (511)^{724} \times (632)^{834}$$

$5 \times \longrightarrow \text{सम} \Rightarrow \textcircled{0} \text{ Ans}$

$$5). (513)^{489} - (27)^{234} \text{ Unit's digit?}$$

HW