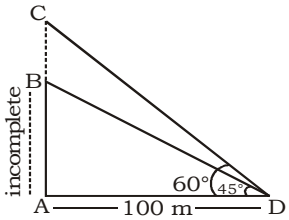
UP SI MOCK TEST – 45 (SOLUTION)

81. (B)



AB is complete pillar and BC is increased height

$\angle ADB = 45°$ and $\angle ADC = 60°$

$\therefore \tan 45° = \frac{AB}{AD}$

$\therefore 1 = \frac{AB}{100} \Rightarrow AB = 100$ m

In $\angle ACD$, $\tan 60° = \frac{AC}{AD}$

$\therefore \frac{\sqrt{3}}{1} = \frac{BC+100}{100} = BC + 100 = 100\sqrt{3}$

$\therefore BC = 100\sqrt{3} - 100 = 100\left(\sqrt{3}-1\right)$ m

82. (D) For minimum value of $x^2 + \frac{1}{x^2+1} - 3$

$x^2 + \frac{1}{x^2+1}$ would be 0, for this $x = 0$

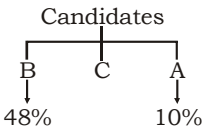
$\therefore$ minimum value of $x^2 + \frac{1}{x^2+1} - 3$

$= 0 + \frac{1}{0+1} - 3$

$= 0 + 1 - 3$

$= -2$

83. (C)

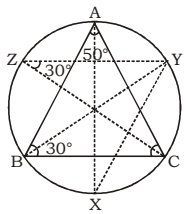


$\therefore$ C got = 42%

Diff. between B and C's votes = 6%

$\therefore$ Total no. of votes = $\frac{1200}{6} \times 100 = 20{,}000$

84. (A)



$\because \angle CZY = \angle CBY = 30°$

$\therefore \angle ABC = 2 \times 30 = 60°$

In $\Delta ABC = \angle BCA + 60° + 50° = 180°$

$\therefore \angle BCA = 180° - 110° = 70°$

$\therefore \angle BCZ = \frac{70}{2} = 35°$

$\because \angle BYZ = \angle BCZ$

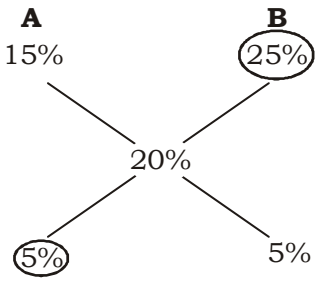
$\therefore \angle BYZ = BCZ = 35°$

85. (A) The area of lawn = $30 \times 16 = 480$ m^2

The area with path = $34 \times 20 = 680$ m^2

$\therefore$ The area of path = $680 - 480 = 200$ m^2

86. (A)



So,

	CP	SP
A	100	115
B	100	125

10 units = 4800

100 units = 48000

CP of each cycle = ₹ 48,000

87. (C) From question : $\Delta s \propto \sqrt{n}$

$\Rightarrow \Delta s = k\sqrt{n}$ ...(i)

where $\Delta s \rightarrow$ reduction in speed, $n \rightarrow$ no. of wagons, $\Delta s = (36 - 30) = 6$ km/h, $n = 9$, put values in equ. (i)

$6 = k\sqrt{9} \Rightarrow k = 2$

for maximum wagons $\Rightarrow \Delta s = 36$ km/h

$36 = 2\sqrt{n}$, $n = 324$

maximum wagons = $324 - 1 = 323$

$n = 323$

88. (D) Let the rate of interest allowed by the bank is R

$\therefore$ interest after 3 years = $\frac{P \times R \times T}{100}$

$= \frac{12000 \times R \times 3}{100} =$ ₹ 360 R

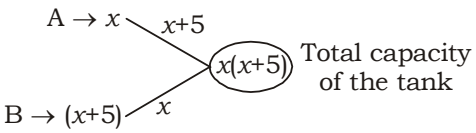
and interest after 5 years = $\frac{P \times R \times T}{100}$

$= \frac{12000 \times 10 \times 5}{100}$ = ₹ 6000

$\therefore$ 6000 – 360 R = 3320

$R = \frac{2680}{360} = 7\frac{4}{9}\%$

89. (B) Let the time taken by the faster pipe (A) = x hours



Then time taken by the slower pipe (B) = $(x + 5)$ hours

ATQ,

$\frac{x(x+5)}{x+(x+5)} = 6$

$\Rightarrow x^2 + 5x = 12x + 30$

$\Rightarrow x^2 - 7x - 30 = 0$

$\Rightarrow x^2 - 10x + 3x - 30 = 0$

$\Rightarrow x(x - 10) + 3(x - 10) = 0$

$\Rightarrow (x - 10)(x + 3) = 0$

$x = 10$ hours

90. (A) TSA of the remaining solid

$= 2\pi rh + \pi r^2 + \pi rl \quad \because l = \sqrt{h^2 + r^2}$

$= 2 \times \pi \times 3 \times 4 + \pi \times 9 + \pi \times 3 \times 5$

$= \pi [24 + 9 + 15]$

$= \pi [48]$ cm^2

91. (B) $\cot 18^\circ \left[\cot 72 \cdot \cos^2 22^\circ + \frac{1}{\tan 72^\circ \sec^2 68^\circ}\right]$

$= \tan 72^\circ \left[\frac{\cos^2 22^\circ}{\tan 72^\circ} + \frac{\cos^2 68^\circ}{\tan 72^\circ}\right]$

$\Rightarrow \tan 72^\circ \times \frac{1}{\tan 72^\circ} [\cos^2 22^\circ + \cos^2 68^\circ]$

$\Rightarrow 1 \times 1 = 1$

92. (C) In 5 years 2 times

$\therefore$ 8 times = 2^3 times

$\therefore n = 5 \times 3 = 15$ years

93. (B) $\angle OCX = 45^\circ$ (ABCD is a square & AC bisects $\angle BCD$)

$\angle COD + \angle COX = 180^\circ$

$\Rightarrow \angle COX = 180^\circ - \angle COD = 180^\circ - 105^\circ = 75^\circ$

In ΔOCX

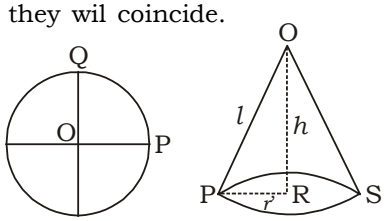
$\angle OCX + \angle COX + \angle OXC = 180^\circ$

$\Rightarrow 45^\circ + 75^\circ + \angle OXC = 180^\circ$

$\Rightarrow \angle OXC = 180^\circ - 120^\circ = 60^\circ$

$\Rightarrow x = 60^\circ$

94. (B) The quadrant POQ of the circle is folded in such a way that the arc PQ form the base of the cone. Radii OP and OQ form slant height of the cone and they wil coincide.



Arc PQ = $\left(\frac{1}{4}\right) 2\pi r$

$= \frac{1}{4} \times 2 \times \frac{22}{7} \times 14$ cm = 22 cm

Circumference of the base of the cone = Arc PQ.

or, $2\pi r' = 22$ (where r' = radius of the base of the cone)

or, $r' = \frac{22}{2\pi} = \frac{22}{2 \times \frac{22}{7}} = \frac{7}{2}$ cm

Slant height of the cone,

OP = radius of the circle

or, $l = 14$ cm

Height of the cone,

$h = \sqrt{(l)^2 - (r')^2}$

or, $h = \sqrt{(14)^2 - \left(\frac{7}{2}\right)^2} = \sqrt{\frac{735}{4}}$ cm

$= \frac{1}{2}\sqrt{735}$ cm

Volume of the cone = $\frac{1}{3}\pi(r')^2 h$

$= \frac{1}{3} \times \frac{22}{7} \times \left(\frac{7}{2}\right)^2 \times \frac{\sqrt{735}}{2}$ cm^3

$= \frac{77}{12}\sqrt{735}$ cm^3 = 174 cm^3 (Approx.)

95. (A) The digit in unit's place = unit's digit in the product $1 \times 2 \times 3 \times .... \times 9 = 0$

96. (D) $246 = P\left[\left(1 + \frac{5}{100}\right)^2 - 1\right]$

$\Rightarrow 246 - P\left[\left(\frac{21}{20}\right)^2 - 1\right]$

$\Rightarrow 246 = P\left(\frac{441 - 400}{400}\right)$

$\Rightarrow 246 = \frac{41P}{400} = P = \frac{246 \times 400}{41}$

$\Rightarrow$ ₹ 2400

$\therefore$ S.I = $\frac{P \times T \times R}{100} \Rightarrow \frac{2400 \times 3 \times 6}{100} \Rightarrow$ ₹ 432

97. (A) $\frac{x}{y} + \frac{y}{x} = -2 \Rightarrow \frac{x^2+y^2}{xy} = -2$

$\Rightarrow x^2 + y^2 = -2xy$

$\Rightarrow x^2 + y^2 + 2xy = 0$

$\Rightarrow (x+y)^2 = 0$

$\Rightarrow x + y = 0$

$\therefore x^3 + y^3 + 3xy(x+y) = (x+y)^3 = 0$

98. (D)

	Speed	:	Time	
Actual →	5		4	)+1
New →	4		5	)

1 unit = 15 min

Actual time = 60 min

99. (A) Let the length of the side of the chess board be x cm. Then

Area of 64 equal squares = $(x-4)^2$

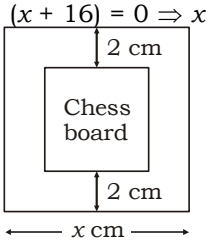
$\therefore (x-4)^2 = 64 \times 6.25$

$\Rightarrow x^2 - 8x + 16 = 400$

$\Rightarrow x^2 - 8x - 384 = 0$

$\Rightarrow x^2 - 24x + 16x - 384 = 0$

$\Rightarrow (x-24)(x+16) = 0 \Rightarrow x = 24$ cm



Hence option (A) is true.

100. (D)

x	:	y	:	z
3×3	:	4×3		
		3×4	:	4×4
9	:	12	:	16

$\therefore \frac{x+y+z}{3z} = \frac{9+12+16}{3\times16} = \frac{37}{48}$

101. (B) C.P of article be

₹ 1000

He takes — 10% — He gave

1100 — 900

$\therefore$ Profit % = $\frac{200}{900} = 22\frac{2}{9}\%$

102. (C) $\frac{x+\frac{1}{x}}{2} = V$

$\Rightarrow x + \frac{1}{x} = 2V$

Required average

$= \frac{x^2+\frac{1}{x^2}}{2} = \frac{\left(x+\frac{1}{x}\right)^2 - 2}{2}$

$= \frac{4V^2-2}{2} = 2V^2 - 1$

103. (A)

	A	:	B
Efficiency →	2	:	1

according to the question,

Both A and B take 4 days to complete the work

then, Total work = (2 + 1) × 4 = 12 units

Time taken by B = $\frac{12}{1}$ = 12 days

104. (C)

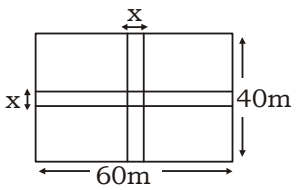
	Water	:	Milk		
same	30	:	170	→	200
	1×30	:	7×30	→	240

* 87.5% → $\frac{7}{8}$

Additional milk required = (210 – 170)l

= 40l.

105. (A)



Total area of park = 60 × 40 = 2400 m²

and area of lawn = 2109 m² (given)

area of the cross roads = 2400 – 2109

= 291 m²

$\Rightarrow x(60 + 40 - x) = 291$

$\Rightarrow x^2 - 100x + 291 = 0$

$\Rightarrow (x-97)(x-3) = 0$

$\Rightarrow x = 3$ or 97

$\Rightarrow x = 3$ [$\because x = 97$ is not possible]

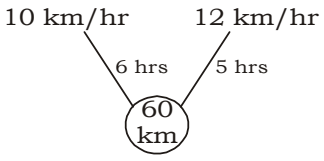
106. (B) maximum value of $(2\sin\theta + 3\cos\theta)$

$= \sqrt{a^2+b^2}$

$= \sqrt{4+9} = \sqrt{13}$

107. (C) Let the required distance

= LCM of (10, 12) = 60 kms



$\therefore$ Difference in time = 6 – 5 = 1 hour

= 60 minutes

given difference in time

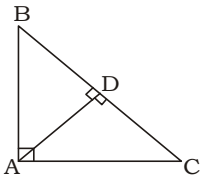
= 6 + 6 = 12 minutes

$\therefore$ 60 → 12

Hence, the required distance

= 12 km

108. (C)



In ΔABC, $AD \perp BC$

$\Delta BAC \sim \Delta ADC$

$\therefore$ The Ratio of area of two similar triangles = Ratio of square of their corresponding sides

Hence, $\frac{ar(BAC)}{ar(ADC)} = \frac{BC^2}{AC^2} = \frac{64}{36}$

$= \frac{16}{9} = 16 : 9$

109. (D) $\sqrt{24010000} = 4900$

again $\sqrt{4900} = 70$

$\therefore \sqrt[4]{24010000} = 70$

110. (B) $\cos\theta = \frac{15}{17}$

$\Rightarrow \sec\theta = \frac{1}{\cos\theta} = \frac{17}{15}$

$\therefore \cot(90 - \theta) = \tan\theta$

$= \sqrt{\sec^2\theta - 1}$

$= \sqrt{\left(\frac{17}{15}\right)^2 - 1} = \sqrt{\frac{289}{225} - 1}$

$= \sqrt{\frac{289 - 225}{225}} = \sqrt{\frac{64}{225}} = \frac{8}{15}$

111. (B) $\angle ACD = \angle ADC = x$

$\because \angle CAD = (180° - 2x)$

$\angle ABC = \angle BAC = \frac{x}{2}$

$(\therefore \angle ABC + \angle BAC = \angle ACD = x)$

$\therefore \angle BAC + \angle CAD + 81° = 180°$

$\therefore \frac{x}{2} + (180° - 2x) + 81° = 180°$

$\therefore \frac{3}{2}X = 81° \Rightarrow X = 54°$

112. (D) Ratio of capitals of A, B and C for 1 year
= (40500 × 12 + 4500 × 6) : (45000 × 12) : (60000 × 6 + 45000 × 6)
= 513 : 540 : 630
= 57 : 60 : 70
Sum of the ratios = 57 + 60 + 70 = 187

Required difference = $\frac{70 - 57}{187} \times 56100$

$= \frac{13}{187} \times 56100 = ₹\ 3900$

113. (C) Let the present ages of A and B be $5x$ and $3x$ years respectively.

Then, $\frac{5x - 4}{3x + 4} = \frac{1}{1}$

$\Rightarrow 5x - 4 = 3x + 4$

$\Rightarrow 2x = 8$

$\Rightarrow x = 4$

$\therefore$ Required ratio = $(5x + 4) : (3x - 4)$
$= 24 : 8 = 3 : 1$

114. (B) $(64)^{x+1} = \frac{64}{4^x} \Rightarrow (4^3)^{x+1} \times 4^x = 64$

$\Rightarrow 4^{3x+3+x} = 4^3 \Rightarrow 4^{4x+3} = 4^3$

$\Rightarrow 4x + 3 = 3 \Rightarrow x = 0$

115. (D) $\sin^{113}\theta \cdot \cos^{113}\theta$

$= \frac{1}{2^{113}}(2\sin\theta \cdot \cos\theta)^{113}$

$= \left(\frac{1}{2}\right)^{113} (\sin 2\theta)^{113} \le \left(\frac{1}{2}\right)^{113}$

$(\because -1 \le \sin 2\theta \le 1)$

Hence, the greatest value of

$\sin^{113}\theta \cdot \cos^{113}\theta = \left(\frac{1}{2}\right)^{113}$

116. (A) Quantity of Guava at shop A

$= 1200 \times \frac{10}{100} = 120$ kg

Quantity of Guava at shop B

$= 1000 \times \frac{16}{100} = 160$ kg

So, required difference = 160 – 120 = 40 kg

117. (B) Cost of Mango at shop A

$= 30 \times 1200 \times \frac{24}{100} = ₹\ 8640$

Cost of apple = $40 \times 1200 \times \frac{16}{100} = ₹\ 7680$

Cost of orange = $20 \times 1200 \times \frac{20}{100} = ₹\ 4800$

So, required ratio = 8640 : 7680 : 4800
= 9 : 8 : 5

118. (C) Quantity of Mango at shop B

$= 1000 \times \frac{24}{100} = 240$ kg

Quantity of Mango at shop B

$= 1200 \times \frac{24}{100} = 288$ kg

So, required% = $288 \times \frac{100}{240} = 120\%$ of the quantity of Mango at shop A

119. (D) Cost of total fruits at shop A = Cost of Mango + Cost of Apple + Cost of Guava + Cost of Orange + Cost of other fruits

$$(1200 \times \frac{24}{100} \times 30 + 1200 \times \frac{16}{100} \times 40 + 1200 \times \frac{10}{100} \times 18 + 1200 \times \frac{20}{100} \times 20 + 1200 \times \frac{30}{100} \times 15)$$

$= 8640 + 7680 + 2160 + 4800 + 5400$
$= ₹\ 28680$

Cost of total fruits at shop B

$$= (1000 \times \frac{24}{100} \times 30 + 1000 \times \frac{14}{100} \times 40 + 1000 \times \frac{16}{100} \times 18 + 1000 \times \frac{20}{100} \times 20 + 1000 \times \frac{26}{100} \times 15)$$

$= 7200 + 5600 + 2880 + 4000 + 3900$
$= ₹\ 23580$

So, required difference
$= 28680 - 23580 = ₹\ 5100$

120. (D) Quantity of Orange at shop A

$$= 1200 \times \frac{20}{100} = 240 \text{ kg}$$

Quantity of Apple at shop B

$$= 1000 \times \frac{14}{100} = 140 \text{ kg}$$

So, required% $= 240 \times \frac{100}{140} = 171.42\%$ more than the quantity of Apple at shop B.

121. (A) As, 335 – 216 = 119
Similarly, 987 – **868** = 119

122. (A) M O N K E Y
(−1 −1 −1 −1 −1 −1)
L N M J D X $\xrightarrow{\text{Reverse}}$ X D J M N L

T I G E R
(−1 −1 −1 −1 −1)
S H F D Q $\xrightarrow{\text{Reverse}}$ **Q D F H S**

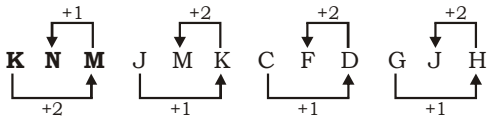
123. (B) If skirmish is not controlled, it will give rise to war and if disease is not controlled, it will give rise to **epidemic**.

124. (B) As, 16 : 56 = 2 : 7
Similarly, 32 : **112** = 2 : 7

125. (B) All except **Chandelas** were associated with ancient kingdoms in southern India, While Chandelas formed a kingdom in north India.

126. (C) $35 \Rightarrow (3-1) \times (5-1) = 2 \times 4 = 08 \Rightarrow 35 - 08$
$57 \Rightarrow (5-1) \times (7-1) = 4 \times 6 = 24 \Rightarrow 57 - 24$
$59 \Rightarrow (5-1) \times (9-1) = 4 \times 8 = 32 \neq 34 \Rightarrow$ **59 – 34**
$79 \Rightarrow (7-1) \times (9-1) = 6 \times 8 = 48 \Rightarrow 79 - 48$

127. (A)



128. (D) $9 - 5 = 4;\ 4 \times 2 = 8$
$17 - 11 = 6;\ 6 \times 2 = 12$
26 $- 19 = 7;\ 7 \times 2 = 14$

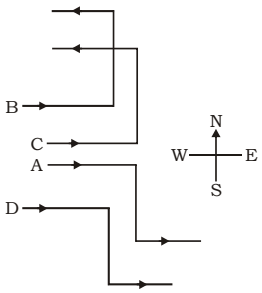
129. (A) $4 + 3 = 7;\ 7^3 = 343$
$4 + 4 = 8;\ 8^3 = 512$
$\therefore\ 4 + 5 = 9;\ 9^3 =$ **729**

130. (B) 4/12/11 $\xrightarrow{+28 \text{ days}}$ 1/1/12 $\xrightarrow{+28 \text{ days}}$ 29/1/12 $\xrightarrow{+28 \text{ days}}$ 26/2/12 $\xrightarrow{+28 \text{ days}}$ **25/3/12**

131. (A) The pattern is -
$-1, \times 10 + 1, -1, \times 10 + 1, -1, \times 10 + 1, \ldots$
So, missing term $= 10 \times 10 + 1 =$ **101**

132. (B) The sequence is
a e b d **c** / f j g i **h** / k o l n **m**.

133. (C)



134. (B) 1.12.1991 is the first Sunday of December 1991. So, 3.12.1991 is the first Tuesday of the month.
Clearly, 10.12.1991, 17.12.1991, 24.12.1991 and 31.12.1991 are also Tuesdays.
So, **24.12.1991** is the fourth Tuesday.

135. (A) Given:- $9 \div 8 \times 7 + 5 - 10$
After replacing the signs as per the given details.
$9 - 8 \div 7 \times 5 + 10$

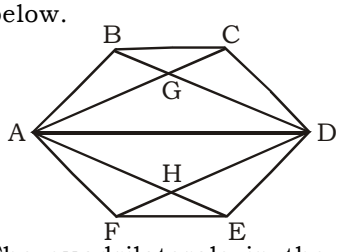
$$= 9 - \frac{8}{7} \times 5 + 10$$

$$= 9 - \frac{40}{7} + 10$$

$$= 19 - \frac{40}{7} = \frac{133 - 40}{7} = \frac{93}{7} = \mathbf{13.3}$$

136. (B) $25 + 20 =$ **45**

137. (D) The figure may be markred as shown below.



The quadrilaterals in the figure are ABCD, ABDE, ABDF, ABDH, CDHA, CDEA, CDFA, DEAG, DEFA, FAGD and AGDH.

∴ The number of quadrilaterals in the figure is **11**.

138. (A)

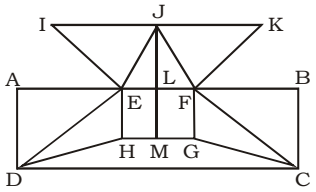
139. (A) Clearly, Conclusion I directly follows from the given statement. Also, it is mentioned that old ideas are replaced by new ones, as thinking changes with the progress in time. So, Conclusion II does not follow.

140. (B) The sitting arrangement is as follows:

P X S Z R A

Therefore, right of P is X.

141. (B) The figure is given below:

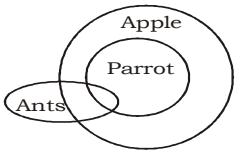


142 (D) Given: D is the brother of B.

From statement 1, we can see that D is son of C (son of D is the grandson of C).

From statement 2, we can see that B is 'Female' (sister of D).

So, we can say that both the statement 1 and 2 are required.

143. (B) 

I. False II. True

144. (D) Daughter of Abhijit's brother → The niece of Abhijit.

Thus, the granddaughter of the woman is Abhijit's niece. Hence, the woman is the mother of Abhijit.

145. (B) At 5 o'clock, the hands are 25 minutes apart.

To be at right angles and that too between 5 : 30 and 6, the minute hand has to gain (25 + 15) = 40 min spaces.

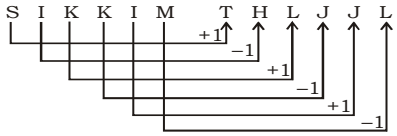
∵ 55 min spaces are gained in 60 min.

∴ 40 min spaces are gained in $\left(\frac{60}{55}\times 40\right)$ min = $43\frac{7}{11}$ min.

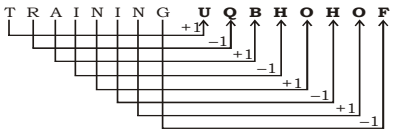
∴ Required time = $43\frac{7}{11}$ min past 5.

146. (D) 

147. (A) Here the common faces with number 3, are in same positions. Hence 6 is opposite to 2 and 5 is opposite to 1. Therefore 4 is opposite to 3.

148. (C) 

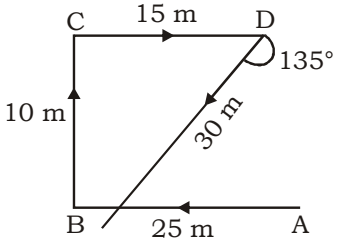
Similarly,



149. (B) The series is ab<u>b</u>/aa<u>a</u>bbb/<u>a</u>aaa<u>b</u>bbb/a.

150. (A) $\underset{(3)}{\text{Member}} \rightarrow \underset{(1)}{\text{Family}} \rightarrow \underset{(4)}{\text{Locality}} \rightarrow \underset{(2)}{\text{City}} \rightarrow \underset{(5)}{\text{Country}}$

151. (C)

152. (C) 

153. (A) P @ Q → P is the wife of Q ...(1)

Q $ T → Q is the brother of T ...(2)

T # U → T is the daughter of U

⇒ Q is the son of U .....(3)

U * W → U is the father of W.

From (1) and (3),

We can conclude that U is the father-in-law of P.

154. (C) Since each pole at the corner of the plot is common to its two sides.

Therefore total number of poles needed = 27 × 4 – 4 = 104.

155. (B) Since Arun and Suresh interchange places, so Arun's new position (13th from left) is the same as Suresh's earlier position (6th from right).

So, Number of children in the queue = (12 + 1 + 5) = 18.

Now, Suresh's new position is the same as Arun's earlier position fifth from left.

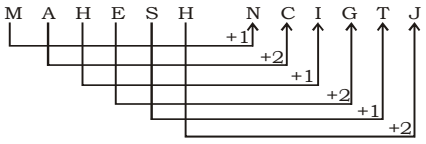
∴ Suresh's position from the right = (18 – 4) = 14th

156. (B) A leap year has 366 days. Now, if we divide 366 by 7 it gives 2 as remainder.

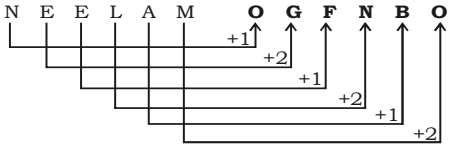
Hence, number of odd days in 366 days is 2.

157. (A)

158. (C)



Similarly,



159. (D)

160. (B)

N	U	M	E	R	A	L
1	2	3	4	5	6	7
U	E	A	L	R	M	N
2	4	6	7	5	3	1

Similarly,

A	L	G	E	B	R	A
1	2	3	4	5	6	7
L	**E**	**R**	**A**	**B**	**G**	**A**
2	4	6	7	5	3	1

UP SI ANSWER KEY - 45

1.	**(C)**	**21.**	**(D)**	**41.**	**(B)**	**61.**	**(C)**	**81.**	**(B**	**101.**	**(B)**	**121.**	**(A)**	**141.**	**(B)**
2.	**(D)**	**22.**	**(C)**	**42.**	**(A)**	**62.**	**(A)**	**82.**	**(D)**	**102.**	**(C)**	**122.**	**(A)**	**142**	**(D)**
3.	**(D)**	**23.**	**(B)**	**43.**	**(A)**	**63.**	**(C)**	**83.**	**(C)**	**103.**	**(A)**	**123.**	**(B)**	**143.**	**(B)**
4.	**(D)**	**24.**	**(C)**	**44.**	**(C)**	**64.**	**(A)**	**84.**	**(A)**	**104.**	**(C)**	**124.**	**(B)**	**144.**	**(D)**
5.	**(A)**	**25.**	**(A)**	**45.**	**(D)**	**65.**	**(A)**	**85.**	**(A)**	**105.**	**(A)**	**125.**	**(B)**	**145.**	**(B)**
6.	**(C)**	**26.**	**(A)**	**46.**	**(C)**	**66.**	**(D)**	**86.**	**(A)**	**106.**	**(B)**	**126.**	**(C)**	**146.**	**(D)**
7.	**(A)**	**27.**	**(B)**	**47.**	**(D)**	**67.**	**(C)**	**87.**	**(C)**	**107.**	**(C)**	**127.**	**(A)**	**147.**	**(A)**
8.	**(A)**	**28.**	**(B)**	**48.**	**(D)**	**68.**	**(A)**	**88.**	**(D)**	**108.**	**(C)**	**128.**	**(D)**	**148.**	**(C)**
9.	**(D)**	**29.**	**(D)**	**49.**	**(C)**	**69.**	**(D)**	**89.**	**(B)**	**109.**	**(D)**	**129.**	**(A)**	**149.**	**(B)**
10.	**(A)**	**30.**	**(B)**	**50.**	**(C)**	**70.**	**(A)**	**90.**	**(A)**	**110.**	**(B)**	**130.**	**(B)**	**150.**	**(A)**
11.	**(C)**	**31.**	**(C)**	**51.**	**(C)**	**71.**	**(C)**	**91.**	**(B)**	**111.**	**(B)**	**131.**	**(A)**	**151.**	**(C)**
12.	**(B)**	**32.**	**(B)**	**52.**	**(C)**	**72.**	**(C)**	**92.**	**(C)**	**112.**	**(D)**	**132.**	**(B)**	**152.**	**(C)**
13.	**(C)**	**33.**	**(D)**	**53.**	**(A)**	**73.**	**(B)**	**93.**	**(B)**	**113.**	**(C)**	**133.**	**(C)**	**153.**	**(A)**
14.	**(A)**	**34.**	**(D)**	**54.**	**(C)**	**74.**	**(B)**	**94.**	**(B)**	**114.**	**(B)**	**134.**	**(B)**	**154.**	**(C)**
15.	**(B)**	**35.**	**(B)**	**55.**	**(B)**	**75.**	**(B)**	**95.**	**(A)**	**115.**	**(D)**	**135.**	**(A)**	**155.**	**(B)**
16.	**(A)**	**36.**	**(C)**	**56.**	**(A)**	**76.**	**(C)**	**96.**	**(D)**	**116.**	**(A)**	**136.**	**(B)**	**156.**	**(B)**
17.	**(D)**	**37.**	**(B)**	**57.**	**(D)**	**77.**	**(A)**	**97.**	**(A)**	**117.**	**(B)**	**137.**	**(D)**	**157.**	**(A)**
18.	**(B)**	**38.**	**(B)**	**58.**	**(C)**	**78.**	**(C)**	**98.**	**(D)**	**118.**	**(C)**	**138.**	**(A)**	**158.**	**(C)**
19.	**(C)**	**39.**	**(D)**	**59.**	**(D)**	**79.**	**(B)**	**99.**	**(A)**	**119.**	**(D)**	**139.**	**(A)**	**159.**	**(D)**
20.	**(B)**	**40.**	**(A)**	**60.**	**(D)**	**80.**	**(D)**	**100.**	**(D)**	**120.**	**(D)**	**140.**	**(B)**	**160.**	**(B)**