UP SI MOCK TEST – 42 (SOLUTION)

81. (A) For the number to be divisible by 10^n, it must contain the same powers for 2 and 5 Power of 2 = $2^{5+2.8+7+3.12+6+2.14+11} = 2^{5+16+7+36+6+28+11} = 2^{109}$
Power of 5 = $5^{3+6+12+14+2.15} = 5^{65}$
$\Rightarrow n = 65$

82. (A) Let total number of boys = x
Let total number of girls = 70% of x = $0.7x$
Total = $x + 0.7x$
85 = $1.7x$
$\Rightarrow x = 50$
Number of boys = 50
Number of girls = 0.7 × 50 = 35
Number of boys playing only badminton = 50% of 50 = 25
No. of children playing Table Tennis only = 40% of 85 = 34
No. of children playing both = 12
No. of girls playing only Badminton = Total students – Boys playing only Badminton –Children playing both games – Children playing only Table Tennis
= 85 – 25 – 12 – 34 = 14

83. (A) For similar triangles,
Area of triangle 1/Area of triangle 2

$$= \frac{(\text{side})^2}{(\text{side})^2}$$

$$\Rightarrow \frac{7-4\sqrt{3}}{1+4\sqrt{3}} = \left(\frac{l_1}{l_2}\right)^2$$

$$\Rightarrow \frac{l_1}{l_2} = \sqrt{\frac{7-4\sqrt{3}}{7+4\sqrt{3}} \times \frac{7-4\sqrt{3}}{7+4\sqrt{3}}}$$

$$\Rightarrow \frac{l_1}{l_2} = \sqrt{\frac{\left(7-4\sqrt{3}\right)^2}{49-48}} \text{ [after rationalisation]}$$

$$\Rightarrow \frac{l_1}{l_2} = 7 - 4\sqrt{3}$$

84. (A) $\sqrt{\frac{(0.1)^2+(0.01)^2+(0.009)^2}{(0.01)^2+(0.001)^2+(0.0009)^2}}$

$$= \sqrt{\frac{(0.1)^2+(0.01)^2+(0.009)^2}{0.01+\left[(0.001)^2+(0.0009)^2\right]}}$$

$$= \sqrt{\frac{1}{0.01}} = \sqrt{100}$$

= 10

85. (B) Let d_1, d_2 and d_3 be 20 km, 10 km and 30 km and S_1, S_2, S_3 be 40 km/h, 10 km/h and 40 km/h.

Hence, $T_1 = \frac{d_1}{S_1} = \frac{20}{40} = \frac{1}{2}$ hr.

$T_2 = \frac{d_2}{S_2} = \frac{10}{10} = 1$ hr.

$T_3 = \frac{d_3}{S_3} = \frac{30}{40} = \frac{3}{4}$ hr.

Total distance = 20 + 10 + 30 = 60 km

Total time = $\frac{1}{2} + 1 + \frac{3}{4}$

$= \frac{2+4+3}{4} = \frac{9}{4}$ hr.

Speed = $\frac{60}{9} \times 4$ = 26.67 kmph

86. (D) Let 'F' for father, 'M' for mother, 'A' for Sonu, 'B' for Savita & 'C' for Sonia (for present ages)
F + M + A + B + C = 96
When Sonu was born:
$\Rightarrow$ (F–A) + (M–A) + (A–A) + (B–A) + (C–A) = 66
$\Rightarrow$ F + M + A + B + C – 5A = 66
$\Rightarrow$ 96 – 5A = 66
$\Rightarrow$ 5A = 96 – 66
$\Rightarrow$ A = 30/5 = 6
Also, F = 6A = 6 × 6 = 36 years
After 12 years
Father's age = F + 12 = 36 + 12 = 48 years

87. (B) Let the price of one lemon juice bottle = ₹x
So, the price of one orange juice bottle = ₹$2x$
So, the price of one orange and 4 lemon juice bottle will be = $2x + 4x = 6x$
Z' share in this will be = $6x/3 = 2x = 50$
Therefore $2x$ = price of orange juice bottle = ₹50

88. (D) $5^{18} + 5^{19} + 5^{20}$
= $5^{17}(1 + 5 + 5^2 + 5^3)$
= $5^{17}(156)$
156 is divisible by 13.

89. (C) $(a^2-1)/a = 5$
$a - 1/a = 5$ .....(i)
Cube both the sides
$a^3 - 1/a^3 - 3 \times a \times 1/a \times (a - 1/a) = 125$
$a^3 - 1/a^3 - 3 \times 5 = 125$ (using equation (i))
$a^3 - 1/a^3 = 140$
or, $(a^6 - 1)/a^3 = 140$

90. (C) 10W × 12 = 8 × 5 M
M = 3W
Let total days required to complete the complete work by 6 women and 3 men be 'y'.
(6W + 3M) y = 10W×12
(10W × 12 is equal to the total work)
⇒ (6W+9W) y = 10W × 12
⇒ 15Wy = 10W × 12
⇒ y = 8 days

91. (A) Let the length of train A be 'l_1' and the length of train B be 'l_2'. Let their respective speeds be 'U_a' & 'U_b'
A.T.Q.,
$3\{(l_1+l_2)/(U_a + U_b)\} = (l_1 + l_2)/U_a - U_b$
On solving the above equation,
⇒ $2U_a = 4U_b$
⇒ $U_a/U_b = 2/1$

92. (C) Let the annual income = x
A.T.Q.,
⇒ (x ×1× 4/100) – (x ×1×3.75/100) = 64
⇒ x/100 × (4 – 3.75) = 64
⇒ x = 64×100/.25
⇒ x = ₹25600

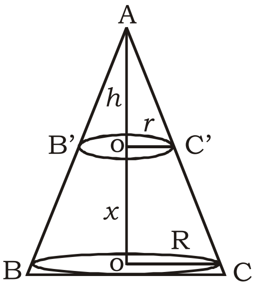
93. (C) Let the number of mangoes the fruit seller has originally be 100x
5% of total mangoes are rotten i.e. 5x mangoes are rotten, remaining mangoes = 95x
Seller sells 75% mangoes of remaining
i.e. $95x \times \frac{75}{100}$
Remaining mangoes = 95x – 71.25x = 95
⇒ x = 4
Seller has initially 100x mangoes = 100 × 4 = 400 mangoes

94. (D) As, square root of 2222 = 47.13, so, 2222 is not a perfect square.
Square root of 11664 = 108, so, 11664 is a perfect square.
Square root of 343343 = 585.95, so, 343343 is not a perfect square.
Square root of 220347 = 469.41, so, 220347 is not a perfect square.
Thus, 1, 3 and 4 are not a perfect square.

95. (D) Given that the ratio of the number of boys in the first and the second standards is 2 : 3 and the ratio The number of boys in the second and third standards is 4 : 5
Now, we calculate a common ratio for all the three standards 2 : 3 and 4 : 5will be 2 × 4 : 3 × 4 = 8 : 12 and 4 × 3 : 5 × 3 = 12 : 15
Therefore, the common ratio for all the three standards 8 : 12 : 15
Sum of the ratio parts = 8 + 12 + 15 = 35
Numbers of the boys in the first standard = $\frac{8}{35} \times 350$ =80
Number of boys in third standard
= $\frac{15}{35} \times 350 = 150$
Total number of boys in the both standards = 80 + 150 = 230

96. (B) Let us assume the capacity of the tab is 100L.
It is given that a tap can fill 100L in 10 hrs.
This means, in 1 hr. a tap can fill only 10L.
Therefore, in 7 hrs a tap can fill only 70L.
This means in 5 hrs a tap fills only 30L but actually the tap should fill 50L in 5 hrs.
This means that there is a leakage of 20L which has duration of 5 hrs.
If 20L of water is leaked in 5 hrs, then
1L water is leaked om $\frac{5}{20} = \frac{1}{4}$ hrs
This means 100L water is leaked in
$\frac{1}{4} \times 100$ = 25 hrs.

97. (D)



Let the radii of frustum of a cone be 'R' and r

Given that, $\frac{R}{1} = \frac{2}{1}$ ...(i)

Let angle AC'O = angle ACO = θ
Now, in triangle AC 'O':

$\tan\theta = \frac{h}{r} = \frac{h}{k}$ [As, $\frac{R}{2} = \frac{r}{1} = k$] ...(ii)

In triangle ACO,

$\tan\theta = \frac{h+x}{R} = \frac{h+x}{2k}$ ...(iii)

From (ii) and (iii), we get

$\frac{h}{k} = \frac{h+x}{2k}$

$\Rightarrow h = \frac{h+x}{2}$

$\Rightarrow 2h = h + x$

$\Rightarrow h = x$

Therefore, $H = h + x = h + h = 2h$

$\Rightarrow \frac{H}{h} = \frac{2}{1}$

Now, volume of frustum of cone

$= \frac{\pi h}{3}(R^2 + Rr + r^2)$

and volume of cone $= \frac{1}{3}\pi r^2 H$

Required ratio $= \frac{R^2 + Rr + r^2}{2r^2} = \frac{7}{8} = 7:8$

98. (C) $\frac{(443+547)^2+(443-547)^2}{(443\times443)+(547\times547)}$

Let $a = 443$, $b = 547$

Then,

$\frac{(a+b)^2+(a-b)^2}{a^2+b^2} =$

$\frac{a^2+b^2+2ab+a^2+a^2+b^2-2ab}{a^2+b^2}$

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

$= \frac{2(a^2+b^2)}{(a^2+b^2)}$

$= 2 \times 1 = 2$

99. (A) Ratio of weights of broken diamond = 1: 2 : 3 : 4

Net weight $= x + 2x + 3x + 4x = 10x$

Price $= 100x^2$

Price $= x^2 + 4x^2 + 9x^2 + 16x^2 = 30x^2$

Net loss $= 100x^2 - 30x^2 = 70x^2$

Now,

$70x^2 = 70000$

$\Rightarrow x^2 = 1000$

Price of original diamond $= 100x$

$= 100 \times 1000$

$= 100000$

100. (C) Let male $= \frac{5x}{9}$

Female $= \frac{4x}{9}$

Unmarried females $= \frac{4x}{9} - \frac{5x}{9} \times \frac{30}{100}$

$= \frac{4x}{9} - \frac{x}{6}$

$= \frac{8x-3x}{10}$

$= \frac{5x}{10}$

% of unmarried females $= \frac{\frac{5x}{18}\times100}{\frac{5x}{9}+\frac{4x}{9}}$

$= \frac{5x\times100}{18} \times \frac{9}{9x}$

$= 27\frac{7}{9}$

101. (D) As Lead Tin

X :- 1 : 2

Y :- 2 : 3

Lead in 25 kg $= \frac{25}{1+2} + \frac{25}{3}$

Tin in 25 kg $= \frac{25\times2}{1+2} = \frac{50}{3}$

Now,

Lead in 125 kg $= \frac{125\times2}{2+3} = 50$

Tin in 125 – 50 = 75

Lead in mixture $= 50 + \frac{25}{3} = \frac{175}{3}$

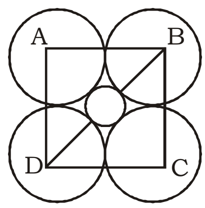
Tine in mixture $= 75 + \frac{50}{3} = \frac{275}{3}$

Ratio of lead : Tin

$= \frac{175}{3} : \frac{275}{3}$

$= 7 : 11$

102. (A)



Let D is diameter of each circle

Thus, side of square = D

Diagonal of square $= \sqrt{D^2+D^2} = D\sqrt{2}$

Diameter of shaded circle

$= D\sqrt{2} - D = D(\sqrt{2}-1)$

103. (A) $\dfrac{6^2+7^2+8^2+9^2+10^2}{\sqrt{7+4\sqrt{3}}-\sqrt{4+2\sqrt{3}}}$

$= \dfrac{36+49+64+81+100}{\sqrt{4+3+4\sqrt{3}}-\sqrt{1+3+2\sqrt{3}}}$

$= \dfrac{330}{\sqrt{2^2+(\sqrt{3})^2+2\times2\times\sqrt{3}}-\sqrt{1^2+(\sqrt{3})^2+2\times1\times\sqrt{3}}}$

$= \dfrac{330}{\sqrt{(2+\sqrt{3})^2}-\sqrt{(1+\sqrt{3})^2}}$

$= \dfrac{330}{\sqrt{2+\sqrt{3}-1-\sqrt{3}}}$

$= \dfrac{330}{1} = 330$

104. (B) Let the number be x
A.T.Q.,

$8x - \dfrac{x}{8} = 2016$

$\Rightarrow \dfrac{64x-x}{8} = 2016$

$\Rightarrow 63x = 2016 \times 8$

$\Rightarrow x = 256$

105. (D) Let speed of boat and stream be x and y.
A.T.Q.,

$x + y = \dfrac{20}{2} = 10$ ...(i)

$x - y = \dfrac{4}{2} = 2$ ....(ii)

Adding (i) and (ii) we get
$2x = 12$
$\Rightarrow x = 6$
$y = 10 - x = 10 - 6 = 4$
Thus, speed of stream be 4 km/hr

106. (D) Given, cost of 2.5 kg rice = ₹125

Cost of 9 kg rice = ₹$\dfrac{125}{2.5}\times 9$
= cost of 4 kg pulses

Cost of 14 kg pulses = $\dfrac{125\times5}{2.5\times4}\times14$ = cost of 1.5 kg tea

Cost of 2 kg tea = $\dfrac{125\times9\times14\times2}{2.5\times4\times1.5}$ = cost of 5 kg nuts

Cost of 11 kg nuts = $\dfrac{125\times9\times14\times2\times11}{2.5\times4\times1.5\times5}$

$= \dfrac{125\times9\times14\times2\times11}{2.5\times4\times15\times5}\times100$

= ₹ 4620

107. (B) Let original speed be 100 then increased speed be 120 time taken in original speed be t
Then time taken in increase speed be $(t-20)$
As, distance in the both cases will be same
So, $100t = 120(t-20)$
$\Rightarrow 5t = 6(t-20)$
$\Rightarrow 5t = 6t - 120$
$\Rightarrow 6t - 5t = 120$
$\Rightarrow t = 120$ minutes

108. (C) $\dfrac{(4444)^{4444}}{9}$

$= \dfrac{(7)^{4444}}{9}$ [When 4444 is divided by 9]

$= \dfrac{(-2^4)^{1111}}{9}$ [Remainder will be 7]

$= \dfrac{(16)^{1111}}{9}$ [Or (–2) negative remainder]

$= \dfrac{(-2)^{1110}\times(-2)}{9}$ [-2 nagative remainder]

$= \dfrac{(-2^6)^{185}\times(-2)}{9}$

$= \dfrac{(64)^{185}\times(-2)}{9}$

$= \dfrac{(1)^{185}\times(-2)}{9}$

$= \dfrac{1\times(-2)}{9} = \dfrac{7}{9}$

Hence remainder be 7

109. (D) As,
Mean of 300 number = 60

$\Rightarrow \dfrac{\text{Sum of number}}{300} = 60$

$\Rightarrow$ Sum of 300 numbers = 300 × 60 = 18000
Sum of top 100 numbers + sum of last 100 numbers = sum of remaining numbers = 18000
Sum of remaining 100 numbers + 800 + 500 = 18000
$\Rightarrow$ Sum of remaining 100 numbers

= 18000 – 13000 = 5000

Mean of remaining 100 numbers = $\frac{5000}{100}$ = 50

110. (B) Let sum invested at rate 5% be P_1, at rate 6% be P_2 then at rate 9% = 17200-(P_1+P_2)

A.T.Q.,

$P_1\times5\times2/100 = P_2\times6\times2/100$ or $P_1 = (6/5)\ P_2$

Also, $P_2\times6\times2/100 = [17200-(P_1+P_2)]\times9\times2/100$

$\Rightarrow 2\ P_2 = [17200 - (11/5)P_2] \times 3$

$\Rightarrow (2 + 33/5)P_2 = 17200 \times 3$

$P_2 = 17200 \times 3 \times 5/43 = 6000$

$\Rightarrow P_1 = 6/5\ P_2 = 7200$

$\Rightarrow$ Sum invested at rate 9% = 17200 – (6000+7200) = ₹4000

111. (C) $(4a + 7b)(4c - 7d) = (4a - 7b)(4c + 7d)$

$(4a+7b)/(4a - 7b) = (4c + 7d)/(4c - 7d)$

Using componendo and dividendo

$(4a + 7b) + (4a - 7b)\ /\ (4a + 7b) - (4a-7b) = (4c + 7d) + (4c - 7d)\ /\ (4c + 7d) - (4c - 7d)$

Or $8a/14b = 8c/14d$

Or $a/b = c/d$

112. (B) Let A takes days to finish work = x

Let B takes days to finish work = $x + 10$

As A is thrice more efficient, hence B will take 3 times the time taken by A.

$x + 10 = 3x$

Solving, we get: $x = 5$

Time taken by B = $x + 10$ = 15 days

113. (C) As XY235 is divisible by 3,

X + Y + 2 + 3 + 5 is divisible by 3

X + Y + 10 is divisible by 3

Also, X + Y < = 5,

Hence (X + Y) can be 2 or 5 (as both 12 & 15 are divisible by 3)

For X + Y = 2, solution (1,1), (2,0)

For X + Y = 5, solution (5, 0), (4,1), (3, 2), (2, 3), (1,4)

Hence, there are 7 possible pairs.

114. (B) C.P. = $\frac{680}{12+5}\times100$

= ₹4000

S P. = 4000 × $\frac{140}{100}$

= ₹5600

115. (C) Net price = $\frac{10\times279}{(100-10)\times6.2}$ = ₹5/kg

Mark price = $\frac{10\times279}{100\times6.2}$ = ₹4.5/kg

Difference = 5 – 4.5 = 0.50

116. (D) Required ratio = $\frac{(75+65)}{(85+95)} = \frac{140}{180} = \frac{7}{9}$

117. (C) Required percentage

$= \left[\frac{(70+80)}{(95+110)}\times100\right]\%$

$= \left[\frac{150}{205}\times100\right]\%$

= 73.17%

118. (D) Average sales (in thousands number) of branches B1, B3 and B6 in 200

$= \frac{1}{3}\times(80 + 95 + 70) = \left(\frac{245}{3}\right)$

Average sales (in thousands number) of branches B1, B2 and B3 in 2001

$= \frac{1}{3}\times(105 + 65 + 110) = \left(\frac{280}{3}\right)$

$\therefore$ Required percentage $= \left[\frac{\frac{245}{3}}{\frac{280}{3}}\times100\right]\%$

$= \left(\frac{245}{280}\times100\right)\% = 87.5\%$

119. (B) Average sales of all the six branches (in thousands numbers) for the year 2000

$= \frac{1}{6}\times[80 + 75 + 95 + 75 + 70]$

= 80

120. (D) Total sales of branches B1, B3 and B5 for both the years (in thousands numbers)

= (80 + 105) + (95 +110) + (75 + 95)

= 560

121. (D) जिस प्रकार बिहार का शोक '**कोसी नदी**' है उसी प्रकार पश्चिम बंगाल का शोक '**दामोदर नदी**' है।

122. (B) जिस प्रकार ऑस्ट्रेलिया का मुद्रा '**डॉलर**' है उसी प्रकार दक्षिण अफ्रीका का मुद्रा '**रैंड**' है।

123. (C) Z + Y – Z = 26, उसी प्रकार X + P – X = **16**.

124. (C) जिस प्रकार, $(7)^2 - 7 = 42$

उसी प्रकार, $(11)^2 - 11 =$ **110**

125. (A) बीजगणित, ज्यामिति तथा अंकगणित **गणित** का भाग है।

126. (B) जिस प्रकार,

$(11)^2 + 4 = 125$

$(20)^2 + 4 = 404$

$(16)^2 + 4 = 260$

उसी प्रकार,

$(14)^2 + 4 =$ **200**

127. (C) CT**A**, CT**B**, CT**C**
+1 +1

128. (C) जिस प्रकार,

$33 + 7 = 40$, $5 + 2 = 7$ $\rightarrow \frac{40}{7}$ = **5 शेषफल**

$10 + 3 = 13$, $6 + 3 = 9$ $\rightarrow \frac{13}{9}$ = **4 शेषफल**

उसी प्रकार,

$33 + 4 = 37$, $8 + 9 = 17$ $\rightarrow \frac{37}{17}$ = **3 शेषफल**

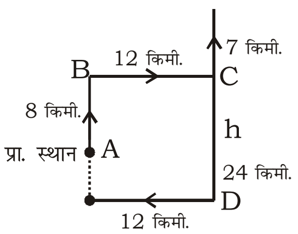
129. (B) जिस प्रकार, T = 20 + 4 = 24
V = 22 + 4 = 26
L = 12 + 4 = 16
उसी प्रकार, S = 19 + 4 = **23**

130. (C) PQ**R**, PQ**T**, PQ**W**, PQ**A**, PQ**F**
+2 +3 +4 +5

131. (A) जिस प्रकार,
7 × 3 = 'U' = 21
5 × 3 = 'O' = 15
6 × 4 = 'X' = 24
9 × 2 = 'R' = 18
उसी प्रकार,
9 × 1 = 'I' = **9**

132. (B) **aanan**

133. (B)



अब, वह आरम्भिक स्थान से **दक्षिण दिशा** में है।

134. (C)

135. (A) 10V12M42L6S4
= 10 – 12 + 42 ÷ 6 × 4
= 10 – 12 + 7 × 4
= 10 – 12 + 28 = **26**

136. (A) जिस प्रकार,

B E A U T I F U L
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
C D O G H J K M N

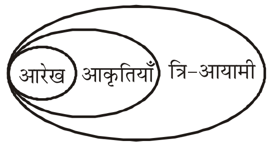
उसी प्रकार,

L E A F
↓ ↓ ↓ ↓
N D O K

137. (B) प्रश्नानुसार,
$(n – 2) × 12$
= (3 2) × 12
= **12**

138. (A)

139. (A)

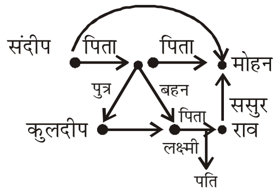


140. (C) 141. (B)

142. (A)

143. (A) प्रश्नानुसार,
C > A > A = D > E
अतः **D**, **A** से छोटा है।

144. (B)



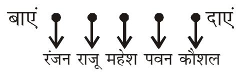
अतः **मोहन**, संदीप का दादा है।

145. (A) यहाँ, t = 3 बजे (t = 1) = 4 बजे, x = 7 मिनट
सुत्र के अनुसार,
t बजकर $(5t \pm x)\times12$
मिनट पर घड़ी की दोनों सुइयाँ x मिनट की दूरी पर होगी।

समय = 3 बजकर $\left(\frac{5\times3\times7}{11}\right)\times12$ मिनट

= **3 बजकर 24 मिनट.**

146. (D)



अतः बाईं ओर से प्रथम स्थान '**रंजन**' है।

147. (D) 36 – 6 + 3 × 5 ÷ 3
= 36 × 6 ÷ 3 + 5 – 3
= 36 × 2 + 2
= 72 + 2
= **74**

148. (B) माना कि पिता की वर्तमान आयु = x वर्ष
माना पुत्र की वर्तमान आयु = y वर्ष
प्रश्न से,
$x + 5 = 3(y + 5)$
$x – 3y = 10$ …(i)
पुनः प्रश्न से, 5 वर्ष पहले
$x – 5 = 7(y – 5)$
$\Rightarrow x – 7y = – 30$ …(ii)
समीकरण (i) तथा (ii) को हल करने पर

$$\begin{array}{r} x - 3y = 10 \\ x - 7y = -30 \\ - \quad + \qquad + \\ \hline 4y = 40 \\ y = 10 \end{array}$$

समी. (i) में y का मान रखने पर
$x – 3 × 10 = 10$
$\Rightarrow x = 40$
$\therefore$ पिता की वर्तमान आयु = **40 वर्ष**

149. (D)

150. (A)

जून	= 5 दिन
जुलाई	= 31 दिन
अगस्त	= 15 दिन
कुल	= 51 दिन

$\therefore \frac{51}{7}$ = भागफल 7 तथा 2 शेष आता है।

बुधवार + 2 दिन = **शुक्रवार**

151. (A) 26 जनवरी, 1997 = रविवार

15 अगस्त, 1997 = शुक्रवार

= 19 ÷ 7

= 5 शेष दिन

= रविवार + 5 शेष दिन

= **शुक्रवार**

152. (A)

153. (C)

154. (B) जिस प्रकार,

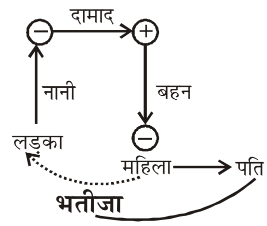
C E N I R A L
↓ ↓ ↓ ↓ ↓ ↓ ↓
A B C D E F G

P L A N E T A R I U M
↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
H G F C B D F E I J K

उसी प्रकार,

L A N T E R N
↓ ↓ ↓ ↓ ↓ ↓ ↓
G F C D B E C

155. (A)



156. (D)

157. (C)

158. (D)

159. (C) लोगों की शिकायत है कि त्यौहारों के मौसम में बस टिकट उपलब्ध नहीं होते हैं इसलिए सरकार को चाहिए कि वो त्यौहारों के मौसम में ज्यादा से ज्यादा बसों की व्यवस्था करें।

160. (D)

UP SI ANSWER KEY - 42

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