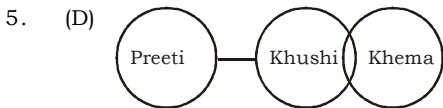
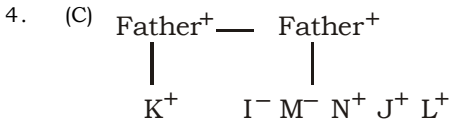
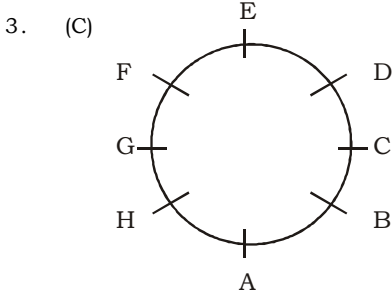


**RRB ALP CBT-1**  
**Answers with Explanation-2**

1. (C)  
2. (C) Except Andhra Pradesh, none have Legislative Councils.



6. (B)  $GANDHI \xrightarrow{\text{Place Value}} 7 + 1 + 14 + 4 + 8 + 9 = 43 = 4 \times 3 = 12$   
 $NEHRU \xrightarrow{\text{Place Value}} 14 + 5 + 8 + 18 + 21 = 66 = 6 \times 6 = 36$   
 Similarly,  
 $PATEL \xrightarrow{\text{Place Value}} 16 + 1 + 20 + 5 + 12 = 54 = 5 \times 4 = 20$

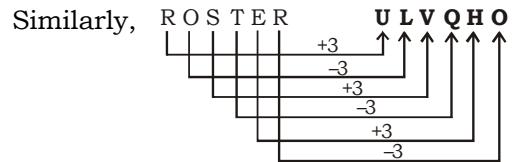
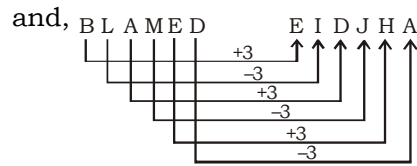
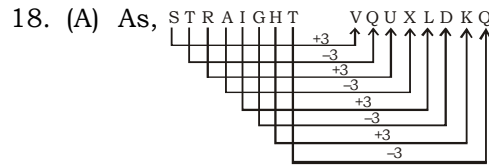
7. (C)  
8. (B) 19, 29, 39, 49, 59, 69, 79, **89**  
 9. (C)  $13 \times (13 - 1) = 156$   
 $11 \times (11 - 1) = 110$   
 $12 \times (12 - 1) = 132$  (Odd)  
 $9 \times (9 - 1) = 72$

10. (B)  
11. (A)
- |          |          |          |
|----------|----------|----------|
| B        | Z        | A        |
| ↓ +2     | ↓ -1     | ↓ +2     |
| D        | X        | C        |
| ↓ +2     | ↓ -1     | ↓ +2     |
| F        | X        | E        |
| ↓ +2     | ↓ -1     | ↓ +2     |
| H        | W        | G        |
| ↓ +2     | ↓ -1     | ↓ +2     |
| <b>J</b> | <b>V</b> | <b>I</b> |

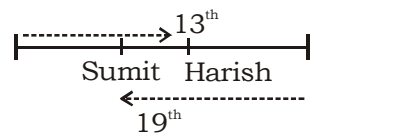
12. (B)  $5 + 6^2 + 7^3 = 384$   
 $4 + 5^2 + 6^3 = 245$   
 $3 + 4^2 + 5^3 = 144$   
 13. (D) Let mark price = 100  
 Cost price =  $100 \times 75/100 = 75$   
 Selling Price =  $100 - 100 \times \frac{15}{100} = 85$

- Profit =  $85 - 75 = 10$   
 Profit percentage =  $10/75 \times 100 = 13.33\%$   
 14. (A)  $7 + 42 - 49 \times 7 \div 60$   
 After interchanging signs as per given details, we get,  
 $7 - 42 \times 49 \div 7 + 60 = -227$

15. (B)  
 16. (C)  $38 \times 42 \div 7 + 7 \neq 37$   
 $38 \div 42 + 7 - 7 \neq 37$   
 **$38 + 42 \div 7 - 7 = 37$**   
 $38 \div 42 \times 7 + 7 \neq 37$   
 17. (B)  $(1 + 4 + 1 + 3)^2 = 81$   
 $(2 + 7 + 3 + 6)^2 = 324$   
 $(4 + 6 + 1 + 3)^2 = \mathbf{196}$



19. (C)
- 



20. (A)  $CDE \quad IHG \quad KLM \quad QPO \quad STU \quad \mathbf{yxw}$   
 21. (A)  $125 \times 5 = 625$   
 Similarly,  $7 \times 5 = \mathbf{35}$   
 22. (C) ATQ,  
 Length of other diagonal

$$= 2 \times \sqrt{20^2 - \left(\frac{24}{2}\right)^2} = 32 \text{ cm}$$

Hence, required area =  $\frac{1}{2} \times 32 \times 12 = \mathbf{192 \text{ cm}^2}$

23. (A) ATQ,  
Effective discount  
=  $\frac{(50000 - 43500)}{50000} \times 100 = \mathbf{13\%}$

24. (A) ATQ,  
Increase in fare =  $\frac{2037}{21} \times (25 - 21) = \mathbf{388}$

25. (C) ATQ,  
Total number =  $60 \times 3 = 180$   
then,  $x + 4x = 180 \left[ A = \frac{B+C}{4} \right]$   
 $\Rightarrow x = 36$   
Hence, first number = **36**

26. (D) ATQ,  
Remaining cotton  
=  $\frac{450 \times (100 - 12)}{100} = 396$  kg  
S.P. of one kg  
=  $\frac{7700 \times 110}{396 \times 100} = \mathbf{21.38}$

27. (A) ATQ,  
Total maximum marks  
=  $\frac{87 + 18}{35} \times 100 = \mathbf{300}$

28. (D) ATQ,  
Total distance in  $\frac{1}{16}$ th second  
=  $1440 \times \frac{5}{18} \times \frac{1}{16} = \mathbf{25m}$

29. (B) ATQ,  
Rate of interest  
=  $\frac{2033 - 1900}{1900} \times 100 = \mathbf{7\%}$

30. (A) ATQ,  
 $\frac{1}{2} \times (x - 7) + 14 = \frac{15}{2}$   
 $\Rightarrow \frac{x}{2} - \frac{7}{2} + 14 = \frac{15}{2}$   
 $\Rightarrow x = \mathbf{-6}$

31. (C) ATQ,  
 $a^3 - b^3 = 1 ((a - b)^2 + 53 \times 3)$   
=  $4 \times 159 = \mathbf{636}$

32. (B) ATQ,  
 $x - \frac{42}{x} = 1$   
 $\Rightarrow x^2 - x - 42 = 0$   
 $\Rightarrow x^2 - 7x + 6x - 42 = 0$   
 $\Rightarrow x = \mathbf{7, -6}$

33. (D) ATQ,  
 $S_{56} = \frac{56}{2} [-15 + 225]$   
=  $56 \times 120 = \mathbf{6720}$

34. (C)  $\frac{360^\circ}{4x} - \frac{360^\circ}{5x} = 9^\circ$

$\Rightarrow 40 \times \frac{1}{20x} = 1 \Rightarrow x = 2$

Hence, required sides  
=  $5 \times 2$  and  $4 \times 2 = \mathbf{10 \text{ and } 8}$

35. (D) ATQ,  
 $\sec^4 A (1 - \sin^4 A) - 2 \tan^2 A$   
=  $\frac{1}{\cos^4 A} (1 + \sin^2 A) \cos^2 A - 2 \tan^2 A$   
=  $\sec^2 A + \tan^2 A - 2 \tan^2 A = \mathbf{1}$

36. (B) ATQ,  
 $\tan (180^\circ - 90^\circ - 30^\circ) = \tan 60^\circ = \mathbf{\sqrt{3}}$

37. (D) **Electricity**

38. (D) Raw material + transport : Salaries  
 $30 + 15 : 15$   
**3 : 1**

39. (A) Required percent  
=  $\frac{(10 - 5)}{5} \times 100 = \mathbf{100\%}$

40. (C)  $\frac{1}{4} \left( \frac{13x}{5} - \frac{3}{2} \right) + \frac{9}{5} = \frac{8}{5}$   
 $\Rightarrow \frac{1}{4} \left( \frac{13x}{5} - \frac{3}{2} \right) = \frac{-1}{5}$   
 $\Rightarrow \frac{13x}{5} = \frac{7}{10} \Rightarrow x = \mathbf{\frac{7}{26}}$

**RRB ALP - 02 (ANSWER KEY)**

- |         |         |         |         |
|---------|---------|---------|---------|
| 1. (C)  | 20. (A) | 39. (A) | 58. (A) |
| 2. (C)  | 21. (A) | 40. (C) | 59. (C) |
| 3. (C)  | 22. (C) | 41. (B) | 60. (D) |
| 4. (C)  | 23. (A) | 42. (D) | 61. (B) |
| 5. (D)  | 24. (A) | 43. (C) | 62. (A) |
| 6. (B)  | 25. (C) | 44. (A) | 63. (C) |
| 7. (C)  | 26. (D) | 45. (B) | 64. (A) |
| 8. (B)  | 27. (A) | 46. (A) | 65. (A) |
| 9. (C)  | 28. (D) | 47. (C) | 66. (C) |
| 10. (B) | 29. (B) | 48. (B) | 67. (A) |
| 11. (A) | 30. (A) | 49. (D) | 68. (A) |
| 12. (B) | 31. (C) | 50. (C) | 69. (B) |
| 13. (D) | 32. (B) | 51. (D) | 70. (A) |
| 14. (A) | 33. (D) | 52. (B) | 71. (C) |
| 15. (B) | 34. (C) | 53. (A) | 72. (A) |
| 16. (C) | 35. (D) | 54. (C) | 73. (D) |
| 17. (B) | 36. (B) | 55. (C) | 74. (D) |
| 18. (A) | 37. (D) | 56. (B) | 75. (B) |
| 19. (C) | 38. (D) | 57. (D) |         |