

RRB ALP CBT-1
Answers with Explanation-5



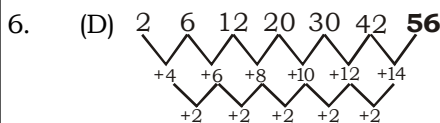
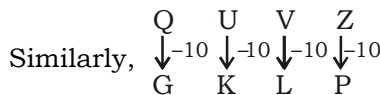
2. (A)
3. (D) $14 \sim 10 = 8 \sim 12$
 $12 \sim 8 = 14 \sim 18$
 $10 \sim 2 = 6 \sim 14$
 $8 \sim 4 = 16 \sim 20$

4. (B)

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 2 | | |
| 3 | | |

$(1+2+3) \times (1+2+3) = 36$

5. (B)
- | | | | |
|------|------|------|------|
| K | O | P | T |
| ↓-10 | ↓-10 | ↓-10 | ↓-10 |
| A | E | F | J |

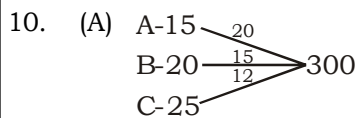
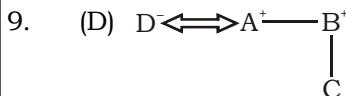


7. (C) $20 + (5 \times 7) - \frac{9}{6}$

$20 - (5+7) \times \frac{9}{6}$

$20 - 12 \times \frac{9}{6} = 2$

8. (B)



11. (B) Variation = $\frac{\text{Standard Deviation}}{\text{Mean}} \times 100$

= $\frac{5}{40} \times 100 = 12.5\%$

12. (A) $(4+2-16 \div 4+3) + \{(1+8 \times 7) \div 19\} \times [(3+5-4) + (17-9 \times 4)]$
= $(6-4+3) + \{(57) \div 19\} \times [4-19]$
= $5+3 \times (-15)$
= $5-45 = -40$

13. (C) Let the speed = x km/hr
A.T.Q.,

$\frac{11}{2} \times x = (x+6) \times 5$

$\frac{1}{2} \times x = 30$

$x = 60$ km/hr

14. (A) $\because \cos 90^\circ = 0$
 $\cos 1^\circ \times \cos 2^\circ \times \dots \times \cos 90^\circ \times \cos 91^\circ \times \dots \times \cos 179^\circ$
 $\cos 1^\circ \times \cos 2^\circ \times \dots \times 0 \times \cos 91^\circ \times \dots \times \cos 179^\circ = 0$

15. (A) $(\cos 12^\circ + \cos 96^\circ) + (\cos 84^\circ + \cos 168^\circ)$
 $2 \cos 54^\circ \cos 42^\circ + 2 \cos 126^\circ \cos 42^\circ$
 $2 \cos 42^\circ (\cos 54^\circ + \cos 126^\circ)$
 $2 \cos 42^\circ [\cos 54^\circ + \cos (180^\circ - 54^\circ)]$
 $\because \cos (180^\circ - \theta) = -\cos \theta$
 $2 \cos 42^\circ (\cos 54^\circ - \cos 54^\circ)$
 $2 \cos 42^\circ \times 0 = 0$

16. (B) Area of triangle = $\sqrt{S(S-a)(S-b)(S-c)}$

$S = \frac{a+b+c}{2}$

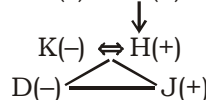
$S = \frac{8+5+5}{2} = 9$

ATQ,

$\frac{1}{2} \times 8 \times h = \sqrt{9(9-8)(9-5)(9-5)}$

$h = 3$ cm

17. (C) $E(-) \Leftrightarrow G(+)$



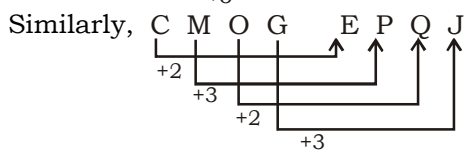
18. (D)
- | | | |
|------|------------|--------|
| | Father's | Mother |
| | ↑ | ↑ |
| Lady | → Father = | Mother |
| | | ↑ |
| | | Boy |

Hence, lady is the sisters of boy's father.

19. (A) $0, 3, 8, ?, 24, 35$
- | | | | | |
|----|----|----|----|-----|
| | ↑ | ↑ | ↑ | ↑ |
| +3 | +5 | +7 | +9 | +11 |
| +2 | +2 | +2 | +2 | |

20. (C) CD, HI, NO, UV, CD
- | | | | |
|----|----|----|----|
| ↑ | ↑ | ↑ | ↑ |
| +5 | +6 | +7 | +8 |

21. (B) As, B, K, P, G, D, N, R, J
- | | | | | |
|----|----|----|----|---|
| ↑ | ↑ | ↑ | ↑ | ↑ |
| +2 | | | | |
| | ↑ | ↑ | ↑ | ↑ |
| | +3 | | | |
| | | ↑ | ↑ | ↑ |
| | | +2 | | |
| | | | ↑ | ↑ |
| | | | +3 | |



22. (D) As, $T, O, A, S, T, R, I, G, I, D$
 $0, 3, 2, 1, 0, 4, 5, 7, 5, 9$
 $\therefore D, O, O, R$
 $9, 3, 3, 4$

23. (D) Study of blood is Hematology, similarly Study of algae is Phycology.
24. (A) $(16 - 4) \times 6 \div 2 + 8 = 30$
 $\Rightarrow (16 \div 4) \times 6 - 2 + 8 = 30$
 $\Rightarrow 4 \times 6 - 2 + 8 = 30$
 $\Rightarrow 24 - 2 + 8 = 30$
 $\Rightarrow 32 - 2 = 30$
25. (A)
$$\begin{array}{c} \text{Grand Father}^+ \\ \uparrow \\ \text{Father}^+ \\ \uparrow \\ \text{Rakesh}^+ \text{ --- } \text{Girl}^- \end{array}$$

 \therefore Girl is the sister of Rakesh.
26. (C)
27. (D) $2 + 8 - 4 \div 6 \times 3$
 After interchanging signs
 $2 \times 8 + 4 - 6 \div 3 = 16 + 4 - 2 = 18$
28. (B) Only course of action II is suitable for pursuing.
29. (A) $M_1 D_1 = M_2 D_2$
 $p \times q = r \times D_2$
 $D_2 = \frac{pq}{r}$
30. (A) Let 1 man's 1 day's work = x and 1 boy's 1 day's work = y
 Then, $12x + 16y = \frac{1}{5}$ and $13x + 24y = \frac{1}{4}$
 Solving these equations,
 $x = \frac{1}{100}$ and $y = \frac{1}{200}$
 $x : y = \frac{1}{100} : \frac{1}{200} = 2 : 1$
31. (A) $107 \times 103 \div 102$
 $\frac{10^{7+3}}{10^2} [\because xy \times xz = xy+z]$
 $\Rightarrow 1010-2 \Rightarrow \left[\because \frac{x^y}{x^z} = x^{y-z} \right]$
 $\Rightarrow 108$
32. (B) Circumference of square = $4 \times \text{side} = 24$
 \therefore Side = 6 cm
 \therefore Area = $a^2 = 36$ sq.cm
33. (B) SI = $114.24 - 84 = 30.24$
 $\therefore \frac{84 \times r \times 2}{100} = 30.24 \Rightarrow r = 18\%$
 Now,
 $\frac{96 \times 18 \times 4}{100} = \text{Rs. } 69.12$
 Amount = $96 + 69.12 = \text{Rs. } 165.12$
34. (D) LCM \times HCF = Ist number \times IInd number
 $168 \times 6 = 42 \times \text{IInd number}$

- IInd number = 24
35. (A) $150 - 6 = 144$
 $234 - 6 = 228$
 $288 - 6 = 282$
 HCF of 144, 228, and 282 is 18.
 \therefore Total number of children is 18.
36. (C) Central angle of the expenditure on paper
 $= \frac{25}{100} \times 360 = 90^\circ$
37. (B) $25\% = 20000$
 $33\% = \frac{20000}{25} \times 33 = 26400$
38. (C) $\frac{12}{25} \times \frac{625}{96} \div \frac{245}{196}$
 $\frac{25}{8} \times \frac{196}{245} \Rightarrow \frac{5}{2} \times \frac{49}{49} \Rightarrow \frac{5}{2} \Rightarrow 2\frac{1}{2}$
39. (D) $(x^2 + y^2 - 2xy) - (x^2 + y^2 + 2xy)$
 $\Rightarrow x^2 + y^2 - 2xy - x^2 - y^2 - 2xy$
 $\Rightarrow -4xy$
40. (A) Perimeter of semicircle = $\pi r + 2r$
 $\pi r + 2r = 36$
 $\therefore r = 7$
 \therefore Diameter of cemicircle = 14 cm

RRB ALP - 05 (ANSWER KEY)

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