

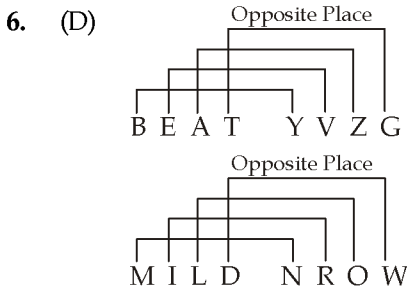
**Test Form No. : 016 6 60**

**Answer with Solution/उत्तर व्याख्या सहित**

**भाग-I | सामान्य बुद्धिमत्ता एवं तर्कशक्ति**

**PART-I | General Intelligence and Reasoning**

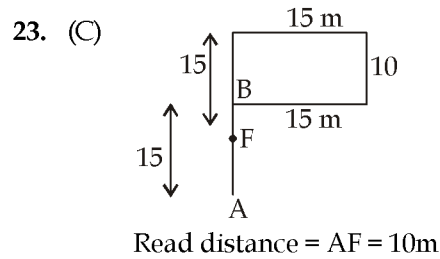
1. (A) According to alphabetical order  $C = 3$   
 $\Rightarrow 3 \times 5 + 1 = 16$   
 Similarly,  $F = 6 \Rightarrow 6 \times 5 + 1 = 31$
2. (D) Coins are cost and stamped in a mint. Similarly, bricks are baked in a kiln.
3. (C) Except Kandla, all are ranges of Himalyas, while Kandla is a sea-port in Gujrat.
4. (C) In all other numbers, sum of digits is 28.
5. (D)



7. (B)
8. (D) Sumit reached at the place 20 min. before 8 : 50 am. i.e., at 8 : 30 am. Clearly the man who was 40 min. late would reach the place at 9 : 00 am. So, the scheduled time of the meeting was 40 min before 9 : 00 a.m. i.e. 8 : 20 am.
9. (C) The correct sequences is  $3, 3^2, 3^3, 4, 4^2, 4^3, 5, 5^2, 5^3$   
 So, 10 must be replaed by 9.
10. (D) No. of keepers be x.  
 No. of feet =  $2 \times 50 + 4 \times 45 + 4 \times 8 + 2x$   
 $= 2x + 312$   
 Total no. of heads =  $50 + 45 + 8 + x = 103 + x$   
 $103 + x + 224 = 2x + 312$   
 or  $x = 15$
11. (A)
12. (D)  $10 \times 2 \Rightarrow 10 - 2 = 8 \Rightarrow \frac{8}{2} = 4$   
 $14 \times 4 \Rightarrow 14 - 4 = 10 \Rightarrow \frac{10}{2} = 5$   
 $24 \times 12 \Rightarrow 24 - 12 = 12 \Rightarrow \frac{12}{2} = 6$
13. (B) Take opposite place value.
14. (C)
15. (A)
 

T	R	O	K	F	Z	S
-2	-3	-4	-5	-6	-7	
16. (C)
17. (D)

18. (A) Sum of numbers is 17.
19. (B)  $2 \rightarrow 3 \rightarrow 4 \rightarrow 5, 11 \rightarrow 9 \rightarrow 7 \rightarrow 5$
20. (B)
21. (B)
22. (A) Age of elder on be x yr.  
 Age of younger son is  $(x - 15)$  yrs  
 Age of father is  $2x$  yrs  
 So,  $2x + 10 = 3(x - 15 + 10)$   
 $\Rightarrow 2x + 10 = 3x - 15 \Rightarrow x = 25$   
 Father's age =  $2 \times 25 = 50$  years



24. (B)
25. (C)

**भाग-II | सामान्य ज्ञान एवं जानकारी**

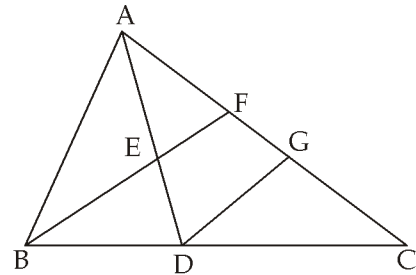
**PART-II | General Knowledge and Awareness**

26. (C) In the Delhi Session, 1947 of INC Rajendra Prasad became the last President of INC.
27. (A) Nargis Dutta  
 Nargis was an Indian film actress and work as a social worker, and later a Rajya Sabha nomination in 1980.
28. (C) Right to constitutional remedies  
 By including article 32 in the fundamental Rights, the Supreme Court has been made the protector and guarantor of these rights.
29. (C)
30. (B) 1962  
 Zero hour is the Indian Innovation and in Parliament it starts at 12 noon during which members raise matters of importance, especially those that can not be delayed.
31. (B) M. G. Ranade  
 Justice Mahadev Govind Ranade (1842-1901) was a distinguished Indian scholar, social reformer and author, sometimes called a father of renaissance of Western India. He was one of the founding member of Indian National Congress. He was against cast system, untouchability, and was a strong supporter of widow remarriage.
32. (B) Histology – Study of tissues  
 Osteology – Study of bones.

33. (C) the smell of onion and garlic is due to the presence of sulphur.
34. (B) The distance travelled by light in a year is called a light year. It's numerical value is  $9.46 \times 10^{15}$  metre.
35. (B) Lactometer – To measure purity of milk.  
Bolometer – To measure temprature of sun.
36. (C) Tides are caused by the gravitational pull exerted by both Sun and Moon. The overall effect of gravitational pull of both Sun and Moon results in the rise in waves and sea water cuasing tides. The gravitational pull of moon is more signficiant than that of sun due to its closeness to earth.
37. (B) Bhikaji Rustam kama  
Bhikaji Rustam kama (1861-1936) was an out standing lady of great courage, fearlessness, integrity, perserance and passion for freedom and is considered as the mother of Indian Revolution, because of her contributions to Indian freedom struggle. She was credited with designing India's first tricolor flag with green, saffron ans redstripes bearing the immortal words-Vande Matram.
38. (D) Charter Act 1833  
The charter Act 1833 made the Governor General of Bengal the Governor General of British India and all financial and administrative powers were centralized in the hands of Governor General in council.
39. (B) The Nizam of Hyderabad  
The subsidiary Alliance system was used by Lord Wellesley (Governor General of India) to bring the Indian states with the boundary of the British political power. Under this doctrine, the Nizam of Hyderabad, the feeblest of all rulers was the first Indian Ruler to accept the subsidiary alliance in 1978 A.D. and came under the British Protection.
40. (D) 41. (A) 42. (D) 43. (A) 44. (A)
45. (A) 46. (C)
47. (D) Maithripala Sirsena is a Sri Lankan politician who is the 7th and current President of Sri Lanka, since 2015.
48. (D) "Indomitable Spirit" is a book authored by Dr. APJ Abdul Kalam, the former President of India. The cover page of the book says brings together the values, thoughts and ideas of President Kalam as reflected in his speeches and addresses.
49. (B) The record of fastest century in test cricket in terms of balls faced is held by Brendon McCullum (New Zealand) who scored 100 runs from 54 balls against Australia at Chistchurch (New Zealand) in 2016, beating the previous record of 56 balls held joint by Vivian Richards (West Indies) and Misbah-ul-Haq (Pakistan).

भाग-III | मात्रात्मक अभिक्षमता  
PART-III | Quantitative Aptitude

51. (B)



In  $\triangle ADG$   
 $EF \parallel DG$   
 $AE = ED$  ..... (1)  
 $AF = GC$   
 Similarly, in  $\triangle BCF$   
 $DG \parallel BF$   
 $BD = DC$   
 $FG = GC$  ..... (2)  
 From eqn (1) and (2)

$$CF = \frac{2}{3} AC$$

52. (B)

$$\begin{array}{l} 2M + 1W \rightarrow 1 \rightarrow 14 \\ 2M + 4W \rightarrow 1 \rightarrow 8 \\ 28M + 14W = 16M + 32W \\ 12M = 18W \\ 2M = 3W \\ \therefore \frac{90}{x} = \frac{3}{2} [x = \text{Wages of a Woman}] \\ x = ₹ 60 \end{array}$$

53. (A)

Let the two numbers are  $98a$  and  $98b$   
 $98a \times 98b = 98 \times 2352$   
 $ab = 24$

$\therefore$  Sum is a multiple of 98  
 $\therefore$  Only option (A) is divisible by 98

54. (A)

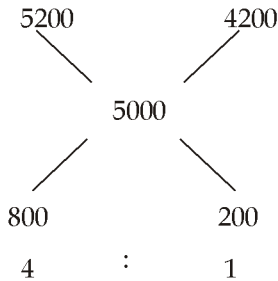
Volume of earth dug out =  $30 \times 20 \times 12 = 7200 \text{ m}^3$   
 Volume of the earth spread = (Area of the ground - area of pond)  $\times$  height  
 $7200 = (500 \times 30 - 30 \times 20) \times h$   
 $h = \frac{7200}{14400} = \frac{1}{2} \text{ m}$

55. (C)

Speed of 2nd train  
 $= \frac{\text{Distance Covered by 1st Train}}{\text{Time taken by 2nd Train}}$

$$= \frac{\frac{10}{3}}{\frac{24}{5}} = 55\frac{5}{9} \text{ km/hr}$$

56. (B) Male Workers Female Workers



$$\text{Required \%} = \frac{1}{5} \times 100 = 20\%$$

57. (B) Required sum =  $24000 \times \frac{120.12}{100}$   
 = ₹ 28828.80

58. (D) Suppose one dozen of each type of orange is purchased  
 Net SP = ₹ (9 + 7) = ₹ 16  
 Net SP = ₹ (8 + 8) = ₹ 16  
 Profit = 16 - 16 = 0

59. (C)  $2x + 1 = 0$   
 $x = -\frac{1}{2}$   
 $3y - 9 = 0$   
 $y = 3$

60. (A) Let the side of square a  
 Radius of circle a

$$\frac{\text{Area of Circle}}{\text{Area of Square}} = \frac{\pi a^2}{a^2} = \pi : 1$$

61. (B)

62. (B) Speed of the first train =  $\frac{150}{15} = 10 \text{ m/s}$

$$T = \frac{2xy}{x+y} \Rightarrow 12 = \frac{2 \times 10 \times y}{10+y}$$

y = Speed of Second Train  
 y = 15 m/s = 54 km/hr

63. (A)  $x = 1 - \sqrt{2}$

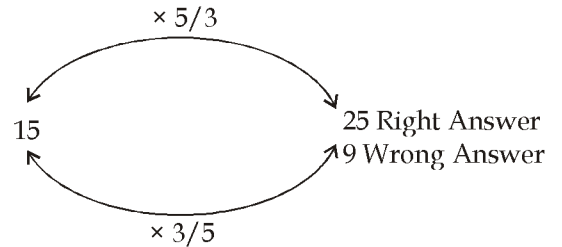
$$\frac{1}{x} = \frac{1}{1 - \sqrt{2}} = \frac{1 + \sqrt{2}}{-1} = -\sqrt{2} - 1$$

$$x - \frac{1}{x} = 1 - \sqrt{2} + \sqrt{2} + 1$$

$$x - \frac{1}{x} = 2$$

$$\left(x - \frac{1}{x}\right)^3 = 8$$

64. (C) Let number = 15



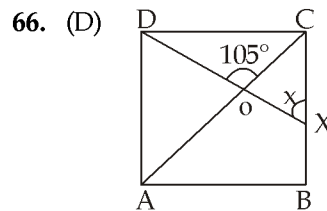
$$\% \text{ error} = \frac{25-9}{25} \times 100 = 64\%$$

65. (D) Let the speed of the man = x km/hr  
 Let the speed of the stream = y km/hr  
 According to the question

$$\frac{1}{x-y} = \frac{10}{60} \dots (i)$$

$$\frac{1}{x+y} = \frac{4}{60} \dots (ii)$$

$$y = 4.5 \text{ km/hr}$$



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

$$\angle OCX = 45^\circ [\because AC \text{ is diagonal}]$$

$$\text{in } \angle COX, \quad x = 180^\circ - 120^\circ = 60^\circ$$

67. (C) Put  $x = 0^\circ$  in the given equation  
 $\Rightarrow 3(0-1)^4 + 6(0+1)^2 + 4(0+1)$   
 $\Rightarrow 3 + 6 + 4$   
 $\Rightarrow 13$

68. (A)

69. (D) Let the fraction is  $\frac{x}{y}$

According to the question

$$\text{Condition (I)} \quad \frac{x+2}{y+2} = \frac{9}{11}$$

$$11x - 9y = -4 \dots (i)$$

$$\text{Condition (II)} \quad \frac{x+3}{y+3} = \frac{5}{6}$$

$$6x - 5y = -3 \dots (ii)$$

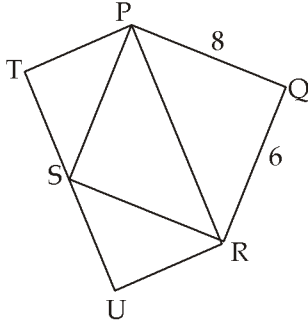
After solving both the equation

$$x = 7, \quad y = 9$$

$$\text{Fraction} = \frac{7}{9}$$

70. (A)  
 71. (A) Total surface area of a hemisphere =  $3\pi R^2$   
 According to the question  
 $3\pi R^2 = 27\pi$   
 $R = 3 \text{ cm}$

72. (C)



Area of PQRS =  $8 \times 6 = 48 \text{ units}^2$   
 $PR = 10$   
 $PR = TU = 10 \text{ unit}$   
 $SU = x \text{ unit}$   
 $TS = (10 - x) \text{ unit}$   
 $SR = 8 \text{ unit}$   
 $SP = 6 \text{ unit}$

Now in  $\Delta TPS$   
 $TP^2 = PS^2 - TS^2 = 36 - (10 - x)^2 \dots (i)$   
 and in  $\Delta SUR$   
 $UR^2 = SR^2 - SU^2 = 64 - x^2 \dots (ii)$   
 From eqn (i) and (ii)  
 $36 - (10 - x)^2 = 64 - x^2 \quad [TP = UR]$   
 $x = 6.4 \text{ unit}$   
 Put the value of x in eq. (ii)  
 $UR = 4.8 \text{ unit}$

Area of TPRU =  $4.8 \times 10 = 48 \text{ units}^2$   
 Required Ratio = 1 : 1

73. (B) Green - Yellow = 10%  
 74. (B) Blue + Red + 2% = 25%  
 75. (D) Required difference =  $\frac{55000}{100} \times 3 = 1650$

भाग - घ | अंग्रेजी भाषा

PART- D | English Language

76. (D) Add 'as' after 'good'  
 77. (B) 'Surely' instead of 'Sure'  
 78. (B) 'hard' instead of 'hardly'  
 79. (B)  
 80. (A)  
 81. (C)  
 82. (A) **Vortex(n)**-a whirling mass of water/ भंवर  
**Arena(n)**-a central stage/ रणभूमि  
**Hell(n)**-power of evil/ नरक  
 83. (C) **Atrocities(n)**-very cruel action/ अत्याचार  
**Hardships(n)**-difficult condition/ कठिनाई  
**Punishment(n)**-act of punishing/ सजा

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84. (D) **Curt(adj)**-ruddily in speech/ रूखा  
**Civil(adj)**-civilian speech/ सभ्य  
**Pithy(adj)**-meaningful in expression/ अर्थपूर्ण  
 85. (D) **Altercation(n)**-angry dispute/ तकरार  
**Scrap(n)**-a small portion/ खण्ड  
**Hassle(n)**-a disorderly dispute/ परेशानी  
 86. (C) **Resplendence**-चमकीलापन  
 87. (D) **Till the cows come home** -बहुत लम्बे समय तक  
 88. (A) **Have something up one's sleeve**-कोई गुप्त योजना  
 89. (C) **Die in harness**-नौकरी के दौरान  
 90. (C)  
 91. (D)  
 92. (C)  
 93. (C) **Malapropism**- बेतूका शब्द  
**Pun**-use of words alike in/ श्लेष  
**Onomatopoeia**-formation of a word/ अर्थानुकरण  
 94. (B) **Archipelago**- द्वीप समूह  
**Port**-where ships load or unload/ बंदरगाह  
**Gulf**-a deep hollow/ खाड़ी  
 95. (B) **Piggyback**- पीठ पर बैठना  
**Hunchback**-abnormal spinal curvature/ कूबड़  
**Kickback**-a rebate/ वापसी

96. (A)	Social	= सामाजिक
97. (A)	Certain	= निश्चित
98. (A)	Judgement	= निर्णय
99. (B)	Recognised	= पहचानना
100. (C)	Volcanic Eruption	= ज्वालामुखी विस्फोट
	Inaccessible	= दुर्गम
	Despise	= घृणा करना
	Refuse	= इनकार करना
	Drawn	= तैयार
	Bestial	= पाशविक
	Sly	= धूर्त
	Cursory	= सरसरी
	Glance	= झलक
	Ridiculously	= बेढंग
	Perhaps	= शायद
	Conclude	= निष्कर्ष निकालना
	Contribution	= योगदान
	Glory	= महिमा
	Critics	= आलोचक