
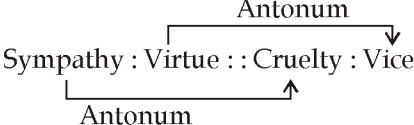
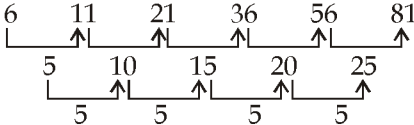
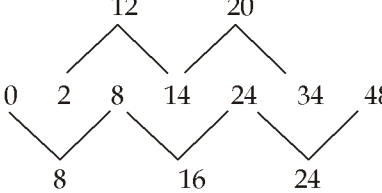

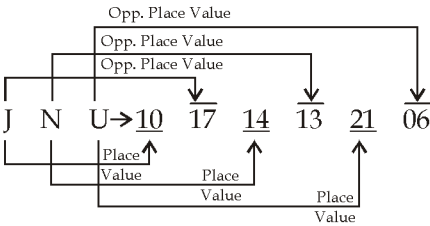
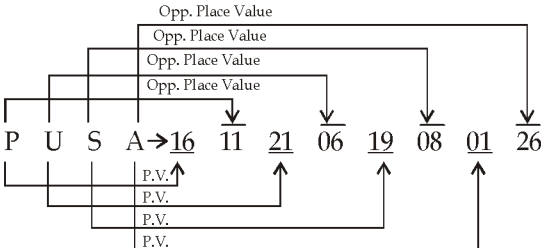


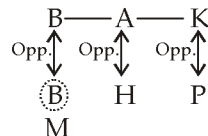
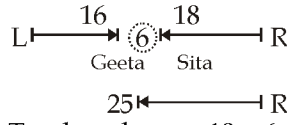
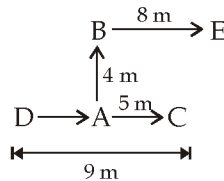
**Test Form No. : 016 6 59**

**Answer with Solution/उत्तर व्याख्या सहित**

भाग-I | सामान्य बुद्धिमत्ता एवं तर्कशक्ति

PART-I | General Intelligence and Reasoning

1. (D) Intelligentisa : Elitist :: Rabble : Plebeian  

2. (D) Sympathy : Virtue :: Cruelty : Vice  

3. (D) Except option (D) all others are fertilizers.
4. (C) Except option (C) all others are found naturally.
5. (C) Except option (C) all others are famous battle-fields, whereas Sarnath is a religious place.
6. (B) 
7. (D) 
8. (C)
9. (D) 
10. (A)   


11. (C)
12. (B)  $(14 \times 4 - 20) \div 12 = 3$   
 $(9 \times 9 - 42) \div 13 = 3$   
 $(12 \times 8 - 19) \div 7 = 11$   
 Similarly,  $(20 \times 10 - 40) \div 20 = 8$
13. (D)  $\sqrt{64} + \sqrt{25} + \sqrt{144} + \sqrt{36} = 31$   
 $\sqrt{9} + \sqrt{325} + \sqrt{16} + \sqrt{169} = 38$   
 Similarly,  $\sqrt{36} + \sqrt{64} + \sqrt{576} + \sqrt{361} = 57$
14. (B) 40B8T6M3K4  
 Using the signs.  
 $40 \div 8 - 6 + 3 \times 4$   
 $= 5 - 6 + 3 \times 4$   
 $= 5 - 6 + 12$   
 $= 5 + 12 - 6$   
 $= 11$
15. (D)
16. (A)
17. (B)
18. (A) 
19. (A)
20. (D)   
 Total students =  $18 + 6 + 16 = 40$
21. (A)   
 Hence distance b/w A and D =  $9m - 5m = 4m$
22. (D)
23. (C) Sum of ages of all the members =  $6 \times 22 = 132$  years  
 Sum of ages 7 years ago =  $132 - (7 \times 6) = 90$  years  
 But at that time there were only 5 members  
 Hence, average at the time =  $90 \div 5 = 18$   
 Or  
 Average increases by 1 every year in case of age.  
 $\therefore$  Average age 7 years ago =  $22 - 7 = 15$  years  
 Sum of ages at that time =  $15 \times 6 = 90$  years  
 But there were only 5 members at time  
 Hence, Average age at that time =  $90 \div 5 = 18$
24. (C)
25. (C)

## भाग-II | सामान्य ज्ञान एवं जानकारी

## PART-II | General Knowledge and Awareness

26. (C) Vallabh Bhai Patel  
 27. (B) Maha Chakri Sirindhorn  
 Thai princess Maha Chakri Sirindhorn has been conferred with the first world Sanskrit Award.  
 28. (D) Bhima-2  
 He was defeated by Bhima-2, the Solanki ruler of Gujrat in 1178.  
 29. (C) Bowman's capsule is a part of Nephron (a cell of kidney) which is helpful in purification of blood.  
 30. (A) Plasma forms about 55-60% of blood. It is the liquid part of blood.  
 31. (C) An enzyme named kinase is helpful for clotting of blood.  
 32. (A) The gravitational pull of earth is 6 times the gravitational pull of moon.  
 33. (A) Co (60) or cobalt 60 is a radioactive isotope of cobalt which is used for the treatment of cancer.  
 34. (B) In case of inflation of price of commodities are raised from their general level. Hence a fixed salaried person is harmed in such a case as he has to contribute a greater share of his salary to purchase the same number of products.  
 35. (C) The governor of Bengal.  
 Qazi fazilat (1541-1545) was the Governor of Bengal. He was appointed by Shershah Suri during his reign in Delhi.  
 36. (D) Muhammad-bin-Tuglaq  
 Vijaynagar was a South Indian Hindu empire, founded in 1356 by Harihara and Bukka during the reign of sultan of Delhi Muhammad-bin-Tuglaq.  
 37. (D) NH-7 is the longest national highway of India. It is famous for the trade of Iron.  
 38. (B) Sun is the source of energy in ecosystem as well as on earth. It provides energy to plants animals and all the other parts of the ecosystem.  
 39. (A) The surface temperature of the sun is around 6000°C. We use Bolometre to measure the temperature of Sun.  
 40. (D) Constitutions Amendment Bill  
 Constitutions Amendment Bill must be passed by each house of the Indian Parliamentary separately by special majority.  
 41. (B)  
 42. (B)  
 43. (B) The first National Conference of Investigation Agencies will be held in New Delhi in India.  
 44. (B) Pakistan will host the first- Ever SAARC Young Parliamentarians Conference (YPC).  
 45. (C) The first Census in India in 1872 during the British period was held during the tenure of Lord Mayo.

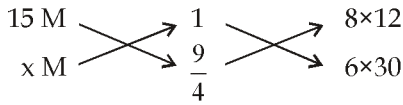
46. (A)  
 47. (C)  
 48. (B) The term "Smart Money" is associated with Credit Card.  
 49. (B) Article 148 There shall be a Comptroller and Auditor-General of India who shall be appointed by the President by warrant under his hand and seal and shall only be removed from office in like manner and on the like grounds as a Judge of the Supreme Court.  
 50. (A)

## भाग-III | मात्रात्मक अभिक्षमता

## PART-III | Quantitative Aptitude

51. (A) Interest for 10 years =  $\frac{1000 \times 5 \times 10}{100} = ₹ 500$   
 Now Principal = 1000 + 500 = ₹ 1500  
 Required time =  $\frac{100 \times 500}{1500 \times 5} = 6\frac{2}{3} + 10 = 16\frac{2}{3}$  yrs  
 52. (B) Let ratio is  $\lambda : 1$   
 Now,  $-4 = \frac{3\lambda - 6}{\lambda + 1} = \frac{\lambda x_2 + \lambda x_1}{\lambda + 1}$   
 $-4\lambda - 4 = 3\lambda - 6$   
 $2 = 7\lambda$   
 $\lambda = \frac{2}{7}$   
 Ratio = 2 : 7  
 53. (B)  $\sin^3\theta + \cos^3\theta + 3\sin\theta\cos\theta(\sin\theta + \cos\theta) + \sin^3\theta - \cos^3\theta - 3\sin\theta\cos\theta(\sin\theta - \cos\theta)$   
 $\Rightarrow 2\sin^3\theta + 3\sin\theta\cos\theta(\sin\theta + \cos\theta - \sin\theta + \cos\theta)$   
 $\Rightarrow 2\sin^3\theta + 3\sin\theta\cos\theta \times 2\cos\theta$   
 $\Rightarrow 2\sin^3\theta + 6\sin\theta\cos^2\theta$   
 $\Rightarrow 2\sin\theta(\sin^2\theta + 3\cos^2\theta)$   
 $\Rightarrow 2\sin\theta(1 + 2\cos^2\theta)$   
 $\Rightarrow 2\sin\theta(1 + 2\cos^2\theta - 1 + 1)$   
 $\Rightarrow 2\sin\theta(2 + \cos^2\theta)$   
 54. (A) Let the total distance is 3x km  
 Average speed =  $\frac{\text{Total Distance}}{\text{Total Time}} = \frac{3x}{\frac{x}{20} + \frac{x}{15} + \frac{x}{10}} = 13\frac{11}{13}$  km/hr  
 55. (D)  $\frac{D}{9+3} + \frac{D}{9-3} = 3$   
 $\frac{D}{12} + \frac{D}{6} = 3$   
 D = 12 km

56. (B)  $15 M = 24 W = 36 B$       1       $8 \times 12$



$$x = 15 \times \frac{9}{4} \times \frac{8 \times 12}{6 \times 30}$$

$$x = 18$$

$$\text{Required Men} = 18 - \left( \frac{15}{6} + \frac{15}{2} \right) = 8$$

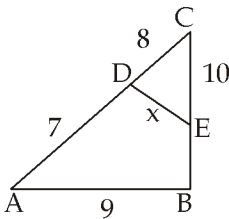
57. (B) Volume of Pyramid =  $\frac{1}{3} \times \text{Base Area} \times \text{Height}$

$$= \frac{1}{3} \times 30 \times 18 \times 8$$

$$= 1440 \text{ cm}^2$$

$$\text{Here, Height} = \sqrt{(17)^2 - (15)^2} = 8 \text{ cm}$$

58. (B)



$\angle A = \angle CED$   
in  $\triangle ABC$  and  $\triangle CED$   
 $\angle C = \angle C$   
 $\triangle CAB \sim \triangle CED$

$$\frac{CA}{CE} = \frac{AB}{DE} \Rightarrow \frac{15}{10} = \frac{9}{x}$$

$$x = 6$$

59. (B) Profit = Money  $\times$  Time

A	B	C
---	---	---

$2 \times \frac{1}{2}$	$7 \times \frac{1}{7}$	$9 \times \frac{1}{9}$
1	1	1

$$\text{Required Profit} = \frac{1}{3} \times 1080 = ₹ 360$$

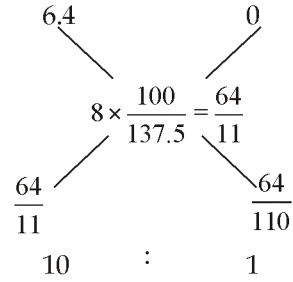
60. (A)  $\frac{22}{7} \times 12 \times 3.5 \times 3.5 = 10.5 \times 8 \times h$

$$h = 1.375 \text{ m}$$

61. (C) Percentage of students who play both the games  
=  $(40\% + 34\% - 48\%) = 26\%$

$$\text{Total number of students} = \frac{234}{26} \times 100 = 900$$

62. (B) Milk      Water



Ratio of Water and Milk = 1 : 10

63. (C) Required Area =  $\pi r^2 \frac{\theta}{360^\circ} = \frac{22}{7} \times 15 \times 15 \times \frac{60}{360}$   
=  $117.85 \text{ m}^2$

64. (B)  $x \propto \frac{1}{y}$

$$x = \frac{k}{y}$$

$$12 = \frac{k}{9}$$

$$k = 108$$

As per option answer is (B)

65. (C)  $a^3 + (-b^3) + (-c^3) = 0$   
 $\Rightarrow (a^3)^3 + (-b^3)^3 + (-c^3)^3 = 3(a^3)(-b^3)(-c^3)$   
 $\Rightarrow a^9 - b^9 - c^9 = 3a^3b^3c^3$   
 $\Rightarrow a^9 - b^9 - c^9 - 3a^3b^3c^3 = 0$

66. (D)

67. (A) Let the first term of AP = a  
Let the common difference = d  
According to the question  
 $a + 13d = 6$  ..... (i)  
 $a + 5d = 14$  ..... (ii)  
from equation (i) and (ii)  
 $d = -1$   
 $a = 19$   
 $T_{95} = a + (95 - 1)d = a + 94d$   
 $T_{95} = 19 + 94 \times (-1) = -75$

68. (C)

69. (C) Price after 1<sup>st</sup> discount =  $3200 \times \frac{90}{100}$   
= ₹ 2880  
 $\text{II}^{\text{nd}} \text{ discount} = \frac{(2880 - 2448)}{2880} \times 100$   
=  $\frac{432}{2880} \times 100 = 15\%$

70. (D) Let  $\angle ADC = x^\circ$   
Now, in  $\triangle ABC$   
 $AB = BC$   
 $\angle BAC = \angle BCA = 40^\circ$

$\angle ABC = 100^\circ$   
 ABCD is a cyclic quadrilateral  
 $\angle B + \angle D = 180^\circ$   
 $\angle D = 80^\circ$

71. (C) According to the question  
 Value of stone  $\propto$  (weight)<sup>2</sup>  
 Actual weight of stone = 20 units  
 Actual value of stone =  $(20)^2 = ₹ 400$   
 New Value of stone = ₹ 138
- Loss =  $\frac{6800}{400} \times 262 = ₹ 4454$
72. (B) Let the side of the new cube = a cm  
 $a^3 = (4)^3 + (5)^3 + (6)^3$   
 $a^3 = 405$   
 $a = \sqrt[3]{405}$   
 $a = 3\sqrt[3]{15}$  cm
73. (B) Required times =  $\frac{170}{80} \times 100$   
 = 2.125
74. (D)
75. (A) Required difference =  $(75 - 68)$   
 = 7%

भाग - घ | अंग्रेजी भाषा

PART- D | English Language

76. (D) anything 'for'  
 77. (B) miles 'around'  
 78. (C) No Error  
 79. (A)  
 80. (C)  
 81. (C)  
 82. (C) **Disdain(v)**-to look upon, scorn/ तिरस्कार  
**Scatter(v)**-to separate/ बिखराव  
**Condemn(v)**-to blame/ निंदा करना  
 83. (D) **Incinerated(v)**-to burn/ जला देना  
**Destroyed(v)**-to put an end to/ नष्ट करना  
**Bombed(adj)**-blitz/ बमबारी  
 84. (A) **Pernicious(adj)**-causing harm or ruin/ हानिकारक  
**Innocuous(adj)**-not harmful/ अहानिकारक  
**Ruinous(adj)**-fallen into ruin/ बर्बाद  
 85. (D) **Gross(adj)**-without deductions/ सकल  
**Obscured(adj)**-not clear or plain/ अस्पष्ट  
**Coarse(adj)**-harsh, faulty quality/ भद्दा  
 86. (A) **Sepulchral**- मकबरा  
 87. (A) **On the spur of the moment**- झटपट

88. (B) **In double-quick time**/ अतिशीघ्र  
 89. (D) **Have the last laugh**- अन्त में सफल होना  
 90. (C)  
 91. (C)  
 92. (B)  
 93. (B) **Espionage**- जासूसी  
**Estrangement**-discord/ मनमुटाव  
 94. (A) **Cataclysm**- प्रलय  
**Catacombs**-underground cemetery/ तहखाना  
**Catalysis**-causing of chemical changes/ उत्प्रेरण  
 95. (B) **Effervesce**-बुलबुला  
**Efface**-do away with/ मिटाना  
 96. (A)  
 97. (B)  
 98. (B)  
 99. (A)  
 100. (C)

Toothache	=	दाँतों का दर्द
Own	=	स्वामी होना
Machinery	=	कल-पुर्जे
Raw Material	=	कच्चा माल
Revived	=	पुनर्जीवित
Sonorous	=	मधुर
Considerable	=	पर्याप्त
Collusion	=	कपट
Obtain	=	पाना
Domestic	=	घरेलू
Invitation	=	निमंत्रण
Decent	=	सभ्य
Culprit	=	अपराधी
Spying	=	जासूसी
Destruction	=	विनाश
Pesticides	=	कीटनाशक
Context	=	संदर्भ
Fallout	=	उतार
Explosions	=	विस्फोट
Melange	=	मिलावट
Augment	=	बढ़ाना
Sinister	=	भयावह
Interaction	=	परस्पर
Summation	=	जोड़
Synthetic	=	संश्लेषित
Deluge	=	बाढ़
Gunk	=	चिपचिपा पदार्थ