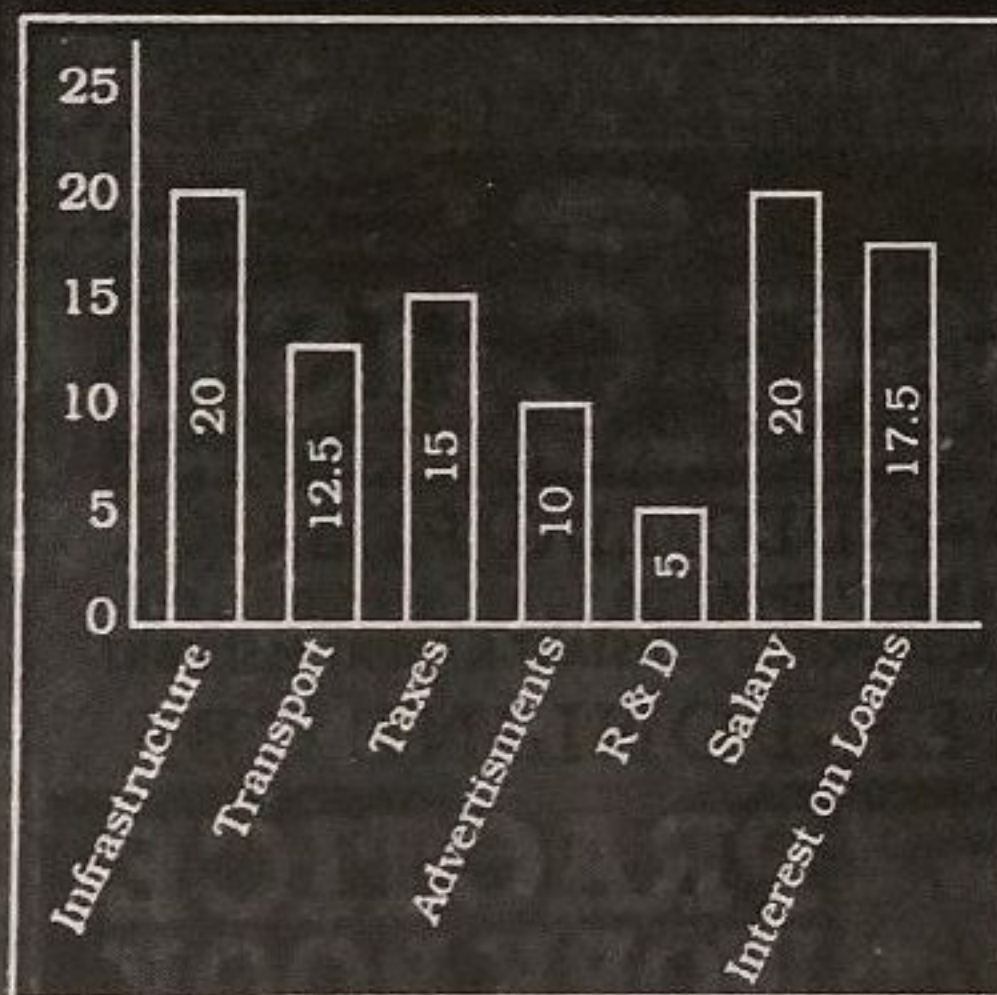# NUMERICAL ABILITY

1. Two numbers are in the ratio 6 : 7. If 3 is subtracted from each of them, their ratio is 5 : 6. Find the larger number.
   - (1) 24
   - (2) 30
   - (3) 21
   - (4) 20

2. The area of a square field is $\frac{11}{2}$ hectares. Find the length of its diagonal in metre.
   - (1) 50 metre
   - (2) 40 metre
   - (3) $100\sqrt{11}$ metre
   - (4) 25 metre

   Directions (3–7) : Study the following bar–diagram carefully and answer the questions given below it.

3. If the total expenditure be Rs. 1500000, what amount is spent on R & D?
   - (1) Rs. 75,000
   - (2) Rs. 73,000
   - (3) Rs. 70,000
   - (4) Rs. 74,000

4. On which item of the following the company spends the maximum?
   - (1) Salary
   - (2) Taxes
   - (3) R & D
   - (4) Transport

5. If the total expenditure be Rs. 850000, what amount was spent on transport?

6. If the total expenditure be Rs. 150000, what amount was spent on salary?
   - (1) Rs. 45,000
   - (2) Rs. 40,000
   - (3) Rs. 30,000
   - (4) Rs. 35,000

7. If the total expenditure be Rs. 850000, what amount was spent on advertisements?
   - (1) Rs. 85,000
   - (2) Rs. 1,28,500
   - (3) Rs. 1,27,000
   - (4) Rs. 1,28,000

   (1) Rs. 1,06,350
   (2) Rs. 1,06,250
   (3) Rs. 1,07,350
   (4) Rs. 1,07,250

8. The simple interest on a certain sum is $\frac{1}{4}$th of the sum. If time period and rate percent be numerically equal, find the time period.
   - (1) $1\frac{1}{2}$ years
   - (2) 5 years
   - (3) 2 years
   - (4) $2\frac{1}{2}$ years

9. The ratio of time taken by A and B in doing a certain piece of work is 1 : 4 respectively. If A completes the work in 14 days, in what time will B complete the same piece of work?
   - (1) 56 days
   - (2) 52 days
   - (3) 45 days
   - (4) 48 days

10. Karishana works in her office for 6 hours 20 minutes and Anjali works for 6 hours. Find the ratio of their working hours.
    - (1) 15 : 14
    - (2) 14 : 15
    - (3) 19 : 18
    - (4) 13 : 15

11. Bhavesh and Hitesh bought a bottle of water together that contained $8\frac{1}{2}$ litres of water. Bhavesh drank $\frac{3}{4}$th part of it. The rest of water was drunk by Hitesh. How many litres of water was used by Bhavesh?
    - (1) 6.375 litres
    - (2) 7.15 litres
    - (3) 6.5 litres
    - (4) 7.55 litres

12. A car covers a distance of 750 km in 12 hours and that of another 550 km in 8 hours. Find the average speed of car.
    - (1) 52 kmph.
    - (2) 55 kmph.
    - (3) 65 kmph.
    - (4) 59 kmph.

13. Convert 57 into binary number.
    - (1) 100110
    - (2) 110011
    - (3) 100001
    - (4) 111001

14. The diameter of the wheel of a car is 14 cm. In how many revolutions will it cover a distance of 1.1 km?
    - (1) 4500
    - (2) 6500
    - (3) 6000
    - (4) 2500

15. Arati, Bhavana, Sneha and Devi completed putting colours in a picture in $\frac{2}{3}$ hour, $\frac{3}{4}$ hour, $\frac{1}{2}$ hour and $\frac{1}{3}$ hour respectively. Which of the following finished colouring at the earliest?
    - (1) Sneha
    - (2) Devi
    - (3) Arati
    - (4) Bhavana

16. What is the single equivalent discount for a discount series of 14% and 13%?
    - (1) 25.18%
    - (2) 24.5%
    - (3) 23.44%
    - (4) 26%

17. Express 40 paise : Rs. 2 and 80 paise in its simplest form.
    - (1) 1 : 8
    - (2) 5 : 4
    - (3) 8 : 1
    - (4) 1 : 7

18. The marked price of a cycle is Rs. 1710. A shopkeeper allows

a discount of 14% on it and earns a profit of 14%. What is the cost price of cycle?

(1) Rs. 1290   (2) Rs. 1000

(3) Rs. 900   (4) Rs. 950

19. Simplify : $\dfrac{(531+350)^2 + (531-350)^2}{531 \times 531 + 350 \times 350}$

(1) 8542   (2) 2

(3) 6245   (4) 5648

20. The difference between two numbers is 13 and $\dfrac{1}{5}$ th of their sum is 11. Find the smaller number.

(1) 45   (2) 21

(3) 15   (4) 35

21. Lawrence studies for $7\dfrac{3}{4}$ hours. He devotes $1\dfrac{2}{3}$ hours of it on mathematics. How much time does he give on other subjects?

(1) $6\dfrac{1}{12}$ hours   (2) $6\dfrac{5}{6}$ hours

(3) $6\dfrac{3}{10}$ hours   (4) $6\dfrac{5}{12}$ hours

22. What percent of $2\dfrac{1}{2}$ hours is 360 seconds?

(1) 4%   (2) 2.5%

(3) 5%   (4) 3.5%

23. In an examination 97% of students passed and 600 students failed. How many students did appear in the examination?

(1) 12000   (2) 13500

(3) 14000   (4) 20000

24. The average of five quantities is 9. The average of three quantities of them is 9. What will be the average of remaining two quantities?

(1) 9   (2) 8

(3) 15   (4) 42

25. The difference between a number and $\dfrac{3}{5}$ th of it is 6. What is the number.

(1) 15   (2) 16

(3) 20   (4) 18

26. Ajay covers a certain distance in 2 hours 40 minutes. He cov-

ers two–third distance of it at 4 kmph and the remaining distance at 5 kmph. Find the total distance.

(1) 11.6 km.   (2) 11.32 km.

(3) 11.42 km.   (4) 11.5 km.

27. A watch of cost price Rs. 1000 was sold for Rs. 1300. What was the profit percent?

(1) 25%   (2) 20%

(3) 24%   (4) 30%

28. A vehicle runs at the speed of 75 kmph. What distance will it cover in 16 minutes?

(1) 18550 metre

(2) 19850 metre

(3) 20000 metre

(4) 19520 metre

29. The area of an equilateral triangle is $36\sqrt{3}$ sq. cm. Find the length of its side.

(1) 12 cm.   (2) 4.45 cm.

(3) 14.25 cm.   (4) 4 cm.

30. In a bag, the 50 paise, 25 paise and 10 paise coins are in the ratio of 6 : 4 : 3 respectively whose total value is Rs. 129. Find the number of 10 paise coins.

(1) 87   (2) 83

(3) 90   (4) 95

31. Rashi takes 14 minutes to reach her school from her hourse. Rupa takes 10 minutes to cover the same distance. Find the ratio of time taken by Rashi and Rupa.

(1) 5 : 7   (2) 5 : 2

(3) 7 : 3   (4) 7 : 5

32. What minimum value should be given to ∗ so that the number 500 ∗ 329 is exactly divisible by 9?

(1) 0   (2) 9

(3) 1   (4) 8

33. Find the average of 320, 240, 125, 205 and 110.

(1) 1225   (2) 200

(3) 244   (4) 450

34. A can do a piece of work in 9 days, B can do the same work in 6 days and C can do the same work in 21 days. In how many days will they together complete the same piece of work?

(1) $3\dfrac{3}{41}$ days   (2) 9 days

(3) 24 days   (4) $2\dfrac{2}{11}$ days

35. The simple interest on a sum of Rs. 5900 for 2 years is Rs. 65 more than that on a sum of Rs. 5400 for the same period of time at the same rate of interest. Find the rate of interest.

(1) 4.5% p.a.   (2) 6.5% p.a.

(3) 5% p.a.   (4) 3% p.a.

36. The number of prime factors in $(4)^{25} \times (7)^{13} \times (15)^9$ is

(1) 86   (2) 90

(3) 92   (4) 81

37. Calculate : $512 \times 625 + 625$

(1) 360025   (2) 326025

(3) 320625   (4) 320065

38. Calculate : $1231 \times 9999 + 1231$

(1) 12310000   (2) 1239991

(3) 12300000   (4) 12319999

39. The present salary of Mahesh is Rs, 15300. There will be an increase of 7.5% next year. What will be his salary after the increment ?

(1) Rs. 16447.5

(2) Rs. 16900.5

(3) Rs. 16950.5

(4) Rs. 16850.5

40. Sanjana bought an article for Rs. 5652. She gave Rs. 348 to a mechanic to erect the defect. She sold it for Rs. 5500. What was her loss per cent.

(1) 8.5%   (2) 5%

(3) 8.33%   (4) 7.5%

41. Aparna sold a washing machine for Rs. 7200. She incurred a loss of 60% in this transaction. At what price did she buy it?

(1) Rs. 20000   (2) Rs. 19000

(3) Rs. 18000   (4) Rs. 21000

42. Veda can do a piece of work in 5 days and Vani can do the same work 30% more efficiently than Veda. What time will Vani take in doing the same work?

(1) $3\dfrac{11}{13}$ days   (2) 4 days

(3) $5\dfrac{1}{2}$ days   (4) 6 days

43. The average monthly income of X and Y is Rs. 4500, that of X and Z is Rs. 3500 and that of Y and Z is Rs. 4000. What is the income of X?
   (1) Rs. 4500   (2) Rs. 4000
   (3) Rs. 3125   (4) Rs. 3500

44. What will a sum of Rs. 4700 amount to at the rate of 10% per annum simple interest at the end of 3 years 6 months?
   (1) Rs. 6900   (2) Rs. 6345
   (3) Rs. 6500   (4) Rs. 6800

45. 45 men can do a piece of work in 15 days. After 5 days they start working, 10 more men join to help them. In what time will the remaining work be finished by all of them?
   (1) $7\frac{1}{3}$ days   (2) $8\frac{1}{4}$ days
   (3) $6\frac{1}{5}$ days   (4) $8\frac{2}{11}$ days

46. Find the value of $(-3)^5 \times (3)^{-5} \times (2)^5$.
   (1) -27 (2) -32
   (3) -108 (4) 32

47. Find the unit's digit in the expansion of $(2015)^{505} + (2011)^{505}$
   (1) 8   (2) 9
   (3) 6   (4) 4

48. An article was sold for Rs. 510 after allowing a discount of 15% on the marked price. What is the marked price of article?
   (1) Rs. 600
   (2) Rs. 590
   (3) Rs. 700
   (4) Rs. 650

49. Which of the following is the smallest?
   $$\frac{9}{5}, \frac{7}{4}, \frac{13}{15}, \frac{5}{8}$$
   (1) $\frac{5}{8}$ (2) $\frac{13}{15}$
   (3) $\frac{7}{4}$ (4) $\frac{9}{5}$

50. If $44x7 - 2y65 = 1832$, what should come at the place of x?
   (1) 9   (2) 5
   (3) 2   (4) 3

GENERAL AWARENESS

51. Under which five-year plan was Rourkela Steel Plant established?
   (1) Fourth   (2) Third
   (3) First   (4) Second

52. Which of the following awards is given for quality control quality in industries?
   (1) Rajiv Gandhi Quality Award
   (2) Indira Priyadarshini Award
   (3) J.C. Bose Award
   (4) Bharti Samman Puraskar

53. Who among the following is a famous Indian painter?
   (1) Ravishankar
   (2) Balamurli Krishna
   (3) Yamini Krishnamurti
   (4) M.F. Hussain

54. Which of the following words was added to the Preamble of Indian Constitution by the 42nd amendment?
   (1) Freedom   (2) Fraternity
   (3) Integrity   (4) Equality

55. Who has authored Geet Govind?
   (1) Ashoka
   (2) Jaidev
   (3) Kalidasa
   (4) Adi Shankaracharya

56. For which of the following musical instruments is Hariprasad Chaurasia famous?
   (1) Guitar   (2) Flute
   (3) Violin   (4) Tabla

57. Who is the author of the book, titled 'The Hungry Tide'?
   (1) Vikram Seth
   (2) Rohinton Mistry
   (3) Amitav Ghosh
   (4) A.P.J. Abdul Kalam

58. The place of birth of Gautam Buddha is
   (1) Dhauli   (2) Kandahar
   (3) Valabhi   (4) Kapilvastu

59. The idea of fundamental rights in Indian constitution has been borrowed from
   (1) Australia   (2) Germany
   (3) United States of America
   (4) Canada

60. Who is the author of famous book, titled 'Ratnavali'?
   (1) Chanakya
   (2) Harshavardhana
   (3) Kautilya
   (4) Amar Sinha

61. After its nationalization, the Imperial Bank of India became
   (1) Bank of India
   (2) Canara Bank
   (3) Oriental Bank of Commerce
   (4) State Bank of India

62. According to Economic Survey, which of the following states is the poorest state of India?
   (1) Punjab   (2) Odisha
   (3) Maharashtra
   (4) Karnataka

63. Which Indian music director is known as 'Ustad'?
   (1) Ilayaraja
   (2) Lakshmikant Pyarelal
   (3) A.R. Rahman
   (4) Bappi Lahiri

64. After whom has the international airport of Nagpur been named?
   (1) Chaudhary Charan Singh
   (2) Indira Gandhi
   (3) B.R. Ambedkar
   (4) Rajiv Gandhi

65. Which article of Indian constitution is related
   (1) Article 45   (2) Article 25
   (3) Article 17   (4) Article 21

66. Which of the following collection is the poetry collection of Sarojini Naidu?
   (1) Golden Threshold
   (2) Pancharatna
   (3) Gitika Ratna
   (4) Diamond Threshold

67. Who among the following represents India at international forum?
   (1) Prime Minister
   (2) Foreign Minister
   (3) Home Minister
   (4) President

68. Which one of the following tax is not levied by the central government?
   (1) Wealth Tax
   (2) Professional Tax
   (3) Excise Duty
   (4) Income Tax

69. Who is the current Chairman of Board of Control for Cricket in India?

(1) Shashank Manohar
(2) Srinivasan
(3) Ravi Shastri
(4) Lalit Modi

70. Who among the following has never been the captain of Indian cricket team?
(1) Kapil Dev
(2) Mansur Ali Khan Pataudi
(3) Navjot Singh Sidhu
(4) Azharuddin

71. With which sport is Corbillion Cup related?
(1) Table Tennis
(2) Badminton
(3) Lawn Tennis
(4) Hockey

72. Which of the following is referred to as permanent house since it cannot be permanently dissolved?
(1) Election Commission
(2) Lok Sabha
(3) Rajya Sabha
(4) State Legislative Assembly

73. Who among the following is not an Olympics medal winner?
(1) Jwala Gutta
(2) K. Malleshwari
(3) Abhinav Bindra
(4) Mary Kom

74. In which year did the Quit India Movement begin?
(1) 1928
(2) 1940
(3) 1937
(4) 1942

75. Who is the highest law officer of a state?
(1) Chief Justice of High Court
(2) Advocate General
(3) Home Minister of the state
(4) General Secretary of Law Department

76. In which amendment act was full statehood proposed for Delhi?
(1) 50th amendment act
(2) 73rd amendment act
(3) 40th amendment act
(4) 60th amendment act

77. With which of the following sports is the term 'ace' related?
(1) Football
(2) Lawn tennis
(3) Cricket
(4) Rugby

78. Who has authored the book, titled 'An Equal Music'?
(1) Vikram Seth
(2) V.S. Naipaul
(3) Kiran Desai
(4) Arundhati Roy

79. Where is the famous monument of Gol Gumbaj located?
(1) Uttar Pradesh
(2) Maharashtra
(3) Karnataka
(4) Madhya Pradesh

80. In whose memory was Taj Mahal built?
(1) Gulbadan Begum
(2) Padhash Begum
(3) Noor Jahan Begum
(4) Mumtaz Begum

81. Who defeated Humayun in the Battle of Kannauj?
(1) Sikandar Shah
(2) Sher Shah Suri
(3) Jahangir
(4) Akbar

82. What is the full form of India's research centre ICAR?
(1) Indian Cultivation and Agriculture Research
(2) Indian Council of Aviation Research
(3) Indian Council of Agronomy Research
(4) Indian Council of Agricultural Research

83. Which of the following Indian states is not part of 'Seven Sisters'?
(1) West Bengal
(2) Sikkim
(3) Manipur
(4) Nagaland

84. Which country will host the Under-17 FIFA World Cup in 2017?
(1) Brazil
(2) Germany
(3) Spain
(4) India

85. Where was Akash missile successfully test fired in January 2016?
(1) Jodhpur, Rajasthan
(2) Pune, Maharashtra
(3) Sriharikota, Andhra Pradesh
(4) Chandipur, Odisha

86. Which of the following awards is given for promoting cultural goodwill?
(1) Dronacharya award
(2) Tulsidas award
(3) Tagore award
(4) Arjun award

87. When is Zero hour generally held in Lok Sabha?
(1) 10.00 A.M-11.00 A.M
(2) 3.00 P.M-4.00 P.M
(3) 1.00 P.M-2.00 P.M
(4) 12.00 P.M-1.00 P.M

88. Which of the following awards is given for important role in wild life conservation?
(1) Salim Ali Puraskar
(2) Jim Corbett Award
(3) Rajiv Gandhi Wildlife Conservation Award
(4) Lal Bahadur Shastri Wildlife Conservation Award

89. Where was the 2014 Hockey World Cup held?
(1) England
(2) India
(3) Switzerland
(4) The Netherlands

90. Who started the Swaraj movement?
(1) Lokmanya Tilak
(2) Bhagat Singh
(3) Annie Besant
(4) Gopal Krishna Gokhale

91. Which of the following seasons in India is not a cropping season?
(1) Rabi
(2) Hudhud
(3) Kharif
(4) Zaid

92. Which of the following types of economy has been adopted by India?
(1) Socialist economy
(2) Free economy
(3) Gandhian economy
(4) Mixed economy

93. Who is the founder of Aam Aadmi Party?
(1) Nitish Kumar
(2) Kiran Bedi
(3) Anna Hazare
(4) Arvind Kejriwal

94. In which year did Karnam Malleshwari win Olympic bronze medal in wrestling?
(1) 2008
(2) 1996
(3) 2004
(4) 2000

95. In which year was general election held for the first time in India?
(1) 1947
(2) 1952
(3) 1949
(4) 1948

96. Who among the following transferred India's capital from Calcutta to Delhi?
(1) Lord Hardinge
(2) Lord Dalhousie

(3) Lord Canning

(4) Lord Curzon

97. Who appoints the Chief Election Commissioner of India?

(1) Chief Justice of India

(2) Parliament

(3) Vice President

(4) President

98. Which Indian university completed 100 years on 13 February 2016?

(1) Aligarh Muslim University

(2) Osmania University

(3) Delhi University

(4) Benares Hindu University

99. For contribution in which field is the Jamnalal Bajaj Award given?

(1) Science   (2) Politics

(3) Literature   (4) Sports

100. In which state is Dol Jatra (Yoshang) festival celebrated?

(1) Manipur

(2) Maharashtra

(3) Jharkhand

(4) Goa