Aptitude Test   **100 Marks**

All questions carry equal marks. Answer all questions. Read instructions carefully and mark the correct answer using a Tick ($\checkmark$) mark in the appropriate box in the separately supplied. Marks placed other than in the box will not be considered.

Direction :- Fill in the gap mentioned as question mark from the four options given below:-

1   $\dfrac{8}{9}$ + $\dfrac{3}{7}$ + $\dfrac{2}{3}$ + ? = $\dfrac{158}{63}$

   a) $\dfrac{145}{21}$ b) $\dfrac{11}{21}$ c) $\dfrac{111}{63}$ d) $\dfrac{145}{63}$

2   $\dfrac{1}{\sqrt{3}}$ + $\dfrac{1}{2\sqrt{3}}$ + $\dfrac{1}{3\sqrt{3}}$ = ?

   a) $\dfrac{11}{6\sqrt{3}}$ b) $\dfrac{6\sqrt{3}}{11}$ c) $\dfrac{2\sqrt{3}}{11}$ d) $\dfrac{3\sqrt{3}}{11}$

3   $2\dfrac{1}{17}$ $2\dfrac{1}{17}$ - ? = $2\dfrac{1}{17}$

   a) $\dfrac{1}{17}$ b) $2\dfrac{1}{17}$ c) $1\dfrac{1}{17}$ d) $\dfrac{17}{13}$

4   $\left(13\dfrac{5}{8} + 9\dfrac{3}{8}\right)$ - $\left(15\dfrac{2}{5} + 7\dfrac{3}{5}\right)$ = ?

   a) 0   b) 23   c) 46   d) 64

5   $\dfrac{5}{13}$ x $\dfrac{6}{13}$ x $5\dfrac{19}{30}$ = ?

   a) 0   b) $\dfrac{1}{13}$ c) $\dfrac{2}{13}$ d) 1

6 When simplified the product?

   $\left(2-\dfrac{1}{3}\right)$ $\left(2-\dfrac{3}{5}\right)$ $\left(2-\dfrac{5}{7}\right)$ ………… $\left(2-\dfrac{997}{999}\right)$ =   ?

   a) $\dfrac{5}{999}$ b) $\dfrac{1001}{999}$ c) $\dfrac{1001}{3}$ d) None

7   $\dfrac{(856+167)^2 + (856-167)^2}{(856 \times 856) + (167 \times 167)}$

   a) 1   b) 2   c) 689   d) 1023

8 What least value must be given to * so that the number 451 * 603 is exactly divisible by 9

   a) 2   b) 5   c) 8   d) 7

9 On dividing a number by 999, the quotient is 366 and the remainder is 103. The number is

   a) 364724   b) 365737   c) 365387   d) 366757

10 The L.C.M. of 2^3 x3^2x5x11, 2^3x3^3x5^2x7^2 and 2^5x3^3x5^3x7^2x11 is

  a) 2^5x3^4x5^3x7^2x11   b) 2^5x3^4x5^3

  c) 2^3x3^2x5x7x11   d) 2^3x3^2x5

11 The HCF of two numbers is 11 and their LCM is 7700. If one of these numbers is 275, then the other one is

  a) 279   b) 283   c) 318   d) 308

12 The expression (11.98x11.98 + 11.98 x X + 0.02 x 0.02) will be a perfect square for X equal to

  a) 0.02   b) 0.04   c) 0.2   d) 0.4

13 Find the greatest fraction of

$$\frac{41}{37}, \quad \frac{41}{27}, \quad \frac{41}{17}, \quad \frac{41}{7}$$

  a) $\dfrac{41}{7}$ b) $\dfrac{41}{17}$ c) $\dfrac{41}{27}$ d) $\dfrac{41}{77}$

14 Arrange in descending order

  1.2, 2.1,0.12,0.21

  a) IV II III I   b) II IV I III

  c) II I IV III   d) IV III I II

15    $\dfrac{63}{81} = \sqrt{\dfrac{?}{81}}$

  a) 36   b) 49   c) 7   d) $\dfrac{1}{49}$

16 ?-$\sqrt{0.04}$ =2

  a) 1.8   b) 2.04   c) 2.2   d) $\sqrt{1.6}$

17 If 45 -[28-(37-{15-*})]=58 then * =

  a) -19   b) 29   c) -29   d) 19

18 75983x 75983 - 45983 x 45983 / 30000 = ?

  a) 121796   b) 121966   c) 121866   d) 121956

19 (51+52+53+ ……………….. +100) is equal to

  a) 3775   b) 2525   c) 2975   d) 3225

20 A gardener arranges 441 plants in such a way that each one contains as many plants as there are rows. Find the plants in a row.

  a) 20   b) 22   c) 21   d) 23

21 The next number in the sequence

$$\frac{4}{23}, \frac{9}{24}, \frac{16}{24}, \frac{25}{26}, \frac{36}{27} \text{ is}$$

a) $\frac{49}{28}$ b) $\frac{37}{28}$ c) $\frac{37}{27}$ d) $\frac{49}{29}$

22 The greatest possible length of scale to measure exactly 6 mt 25 cm, 9 mtr 50 cm and 12 mt 25 cm is

    a) 50 cm   b) 25 cm   c) 125 cm   d) none of these

23 If $5 + 2\sqrt{3} / 7 + 4\sqrt{3} = a + b\sqrt{3}$

    a) a=11, b=-6   b) a=-6, b=11
    c) a=-11, b=6   d) a=-11, b=-6

24 Which of the following numbers is prime?

    a) 117   b) 147   c) 159   d) 149

25 A boy was asked to multiply a number by 7/8 Instead he divided the number by 7/8 and got the result 15 more than the correct result. The number was

    a)   96   b) 36   c) 56   d) 65

26 The eigth term of 9,6,3,0………… is

    a) 8   b) -12   c) -14   d) 6

27 The expression $\log \frac{11}{5} + \log \frac{14}{3} - \log \frac{22}{15}$ is equal to

    a) log 2   b) log 3   c) log 7   d) log 5

28 If a=1.2, b=2.1, C=-3.3 find the value of $a^3 + b^3 + c^3 - 3abc$

    a) o   b) 11   c) 2   d) 3

29 if $\frac{x}{2y} = \frac{3}{2}$, the value of $\frac{2x+y}{x-xy}$ equals

    a) $\frac{1}{7}$ b) $\frac{7}{10}$ c) 7   d) $\frac{10}{7}$

30 The difference between the place values of 7 and 3 in the number 527435 is
    a) 4070   b) 6790   c) 3690   d) 6970

DIRECTION TO Q.No. TO 31 TO 35: The following questions consists of two words each of them have certain relationship to each other, followed by four lettered pairs of words. Select the lettered pair that has the same relationship as of the original pair of words.

31 Trees : Branches
    a) River : Tributaries   b) Continent : Island
    c) Stream : Delta   d) Ocean : Seas

3

32 Relax : work
   a) Play : Cheat   b) Lunch : Dinner
   c) Smile : Laugh   d) Fresh : Stale

33 Square : Cube
   a) Line : Cylinder   b) Triangle : Prism
   c) Circle : Sphere   d) Sphere : Earth

34 Carnivore : Herbvivore
   a) Animal : Bird   b) Camel : Giraffe
   c) Flesh : Plant   d) Horse : Lion

35 Accident : Mishap
   a) Abrubt : Sudden   b) Eminent : Notorious
   c) Pacify : Provoke   d) Dearth : Plenty

DIRECTION FOR Q.No. TO 36 TO 39 : In each of the following questions two words indicated
by I and II have been left out. The correct word to come in place of 1 is given as one of the
four alternatives against one and the correct word to come in place two is given as one of the four
alternatives against two. Read with correct words, there is some relationship between the two
words to the left of the sign (: :) and the same relationship obtains between the two words
to the right of sign (: :). The correct combination is given as one the four alternatives (A), (B), (C), and
(D) find the correct combination in each case.

36 I : Insert : : Active II
   I (a) static (b) statics   (e) Helium (d) Air
   II (e) Gymnast (f) Dynamic (g) Participation (h) Smart

      (A) af   (B) be   (C) ch   (D) dg

37 I : Ocean : : Stone II

   I (a) Glacier   (b) lake   (c) Continent (d) River
   II (e) Rock (f) Pebble (g) Granite (h) Mountain

      (A) ag   (B) be   (C) ch   (D) df

38 I: Dog : : Goat II
   I (a) Bitch (b) Pubby (c) Cat   (d) Colt
   II (e) lamp (f) Cub (g) Pony (h) Farrow

      (A) ch   (B) af   (C) dg   (D) be
39 I: Shoe : : Table II
   I (a) Foot (b) Socks (c) Heel (d) Factory
   II (e) Drawer (f) Chair (g) Wood (h) Carpenter

      (A) af   (B) dh   (C) ce   (D) bg

DIRECTION FOR Q. NO.40 & 41: In each of the following question a group three interrelated words
is given. Choice a word from the given alternatives, that belongs to the same group.

4

40 Patna : Bombay : Dispur

   a) Cochin   b) Trombay   c) Udayapur   d) Madras

41 Potato : Carrot : Radish

   a) Tomato   b) Ground   c) Spinach   d) Sesame

DIRECTION FOR Q. NO. 42 to 45 : Each of the following question as for alternative responses.

42 Which of the following is the same as flood, fire, Cyclone?

   a) Damage   b) Earthquake   c) Rain   d) Accident

43 Which of the following is the same as Rabbit, Rat, Mole?

   a) Mongoose   b) Frog   c) Earthworm   d) Ant

44 Which of the following is the same as Measles, Rabies, Cancer?

   a) Pneumonia   b) Diabetes   c) Tetanus   d) Hepatitis

45 Which of the following is the same as Wrestling, Karate, Boxing?

   a) Swimming   b) Judo   c) Pole Vault   d) Polo

DIRECTION FOR Q. NO. 46 & 47 : In each of the following questions, a sequence of group of letters and number is given with one term missing by (?) choice the missing term of the given alternatives.

46 J2Z, K4X, I7V,? H16R, M22P

   a) 111T   b) L11S   c) L12T   d) L11T

47 Q1F, S2E, U6D, W21C,?

   a) Y66B   b) Y44B   c) Y88B   d) Z88B

48 In a certain code, MONKEY is written as XDJMNL, How is TIGER written in that code

   a) QDFHS   b) SDFHS   c) SHFDQ   d) UJHFS

49 If a certain language NATURE is coded as MASUQE, How is FAMINE coded in that code.

   a) FBMJND   b) FZMHND   c) GANIOE   d) EALIME

50 If clock is called television, television called oven, oven is called grinder and grinder is called Iron, in what will a lady bake?

   a) Radio   b) Oven   c) Grinder   d) Iron

51 If train is called bus, bus is called tractor, tractor is called car, car is called scooter, scooter is call bicycle, bicycle called moped, which is used to plough a field?

   a) train   b) bus   c) tractor   d) car

5

52 Pointing to an man on the stage, Rita said "He is the brother of the daughter of the wife of my husband". How is the man on the stage related to Rita?

      a) Son   b) Husband   c) Cousin   b) Brother-in-law

53 Rahul told Anand "Yesterday I defeated the only brother of the daughter of my grand mother". Whom did Rahul defeat

      a) Son   b) Father   c) Brother   b) Father-in-law

54 There are five different houses A to E in a row. A is the right of B and E is the left of C and right of A,   B is to the right of D which of the house is in the middle.

      a) D   b) B   c) A   d) E

55 A man is facing south. He turns 135 degrees in the anticlockwise direction and then 180 degree in the clockwise direction. Which direction he is facing now?
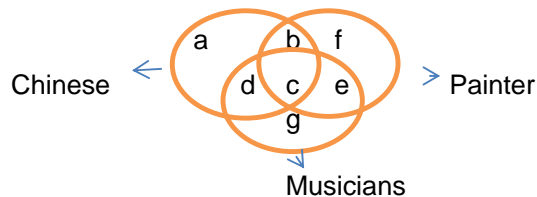
      a)   North-East   b) North-West   c) South-East   d) South-West

56 Which of the following sets is best represented in the adjoining diagram

      a) Animals, Insects, Cockroaches,
      b) Country, States, Districts
      c) Animals, Males, Females and Hermaphrodites
      d) State, Districts, Union Territory

DIRECTION FOR Q. NO.57 to 60 : In the figure given below, there are three intersecting circles each representing certain section of the people. Different regions are marked a to g. Read the statements in each of the following questions and choose the letter of the region which correctly represents the statement.

57 Chinese who are painters but not musicians

      a) b   b) c   c) d   d) g

58 Painters who are neither Chinese nor musicians

      a) b   b)c   c) f   d) g

59 Chinese who are musicians but not painters

      a) c   b) d   c) b   d) a

60 Chinese who are painters as well as musicians

      a) a   b) b   c)c   d) d

6

DIRECTION FOR Q. NO. 61 TO 64 :
   i) Jayanth, Kamal, Namitha, Asha and Tanmay are five members of a family.
   ii) They have birth dates from January to May, each member in one of these months
   iii) Each one likes one particular item for his / her birthday out of Bengali sweets, chocolates,
       Pastries', Ice cream & dry fruits
   iv) The one liking pastries' is born in the month which is exactly middle in the months given.
   v) Asha does not like ice cream but bring chocolates for Jayanth in February.
   vi) Tanmay who is pond of Bengali sweets is born in the next month immediately after Namitha

61 What is the choice of Asha?

   a) Pastries   b) Dry fruits   c) Bengali Sweets   d) None of them

62 Which combination of month & item is true for Jayanth

   a) March - Pastries'   b) February-Pastries
   c) February-Ice cream   d) None of these

63 What is the choice of Kamal

   a) Ice cream   b) Bengali Sweets
   c) Dry fruits   d) None of these

64 In which month was Kamal born

   a) January   b) May   c) January or May   d) None of these

DIRECTION FOR Q. NO. 65 TO 69:
   In Car exhibition seven cars of seven different companies namely : Cardilac, Ambassador, Fiat
   Maruti, Mercedes, Bedford and Fargo were displayed in a row facing east such that
       1 Cardilac car was to the immediate right of Fargo
       2 Fargo was fourth to the right of Fiat
       3 Maruthi car was between Ambassador and Bedford
       4 Fiat which was third to the left of Ambassador car was at one of ends.

65 Which of the following was the correct position of the Mercedes.

   a) Immediate right of Cardilac   b) Immediate left of Bedford
   c) Between Bedford and Fargo   d) Fourth to the right of Maruthi

66 Which of the following is true
       a) Fargo car is between Ambassador and Fiat
       b) Cardilac car is to the immediate left of Mercedes
       c) Fargo is to the immediate right of Cardilac
       d) Maruthi is the fourth to the right of Mercedes

67 Which cars are on the immediate either sides of the Cardilac car?

   a) Ambassador and Maruthi   b) Maruthi & Fiat
   c) Fiat & Mercedes   d) None of these

68 Which of the following is true
   a) Maruthi is immediate left of Ambassador
   b) Bedford is to immediate left of Fiat
   c) Bedford is at one of the ends.
   d) Fiat is to the second to the right of Maruthi
69 Which of the following group of car is to the right of Ambassador car?
   a) Cardilac, Fargo & Maruthi
   b) Maruthi, Bedford & Fiat
   c) Mercedes, Cardilac & Forgo
   d) Bedford, Cardilac & Forgo

70 36 vehicles are parked in the single row. After the first car there is one scooter after the second car there are two scooters, after the third car there are three scooters and so on work out the number of scooters in the second half of the row.
   a) 10   b) 12   c) 15   d) 17

71 How many numbers from 1 to 100 are there each of which is not only exactly divisible by four but also has 4 as a digit
   a) 7   b) 10   c) 20   d) 21

72 A number greater than 3 but less than 8 also it is greater than 6 but less than 10. The number is
   a) 5   b) 6   c) 7   d) 9

73 In row of trees one tree is fifth from either end of the row. How many tree are there in a row
   a) 8   b) 9   c) 10   d) 11

74 The tax on a commodity is dimnished by 20% and its consumption increases by 15%. The effect on revenue is
   a) Decrease by 12 %   b) Decrease by 9 %
   c) Decrease by 8 %   c) None of them

75 A Gardener want to plant 17956 trees in his garden and arranges in such away that there are as many as trees in a row. What is the total number of the trees in a row?

   a) 56   b) 67   c) 47   d) 52

76 If the length and breath of rectangular plot are increased by 50% and 20% respectively, the new areas will be how many times than that of original area?

   a) 4   b) 9/6   c) 11/5   d) 9/5

77 The Average weight of a class of 29 students is 40 kgs. If the weight of the teacher be included, grms the average rises by 500 grms. What is the weight of the teacher?

   a) 45 Kg   b) 55 Kg   c) 62 Kg   d) 40 Kg

78 A mixture contains alcohol and water in the ratio of 4:3. If 7 ltrs of water is added to the mixture the ratio of alcohol and water becomes 3:4.   Find the quantity of alcohol in the mixture.

   a) 12 ltrs   b) 8 ltrs   c) 9 ltrs   d) 15 ltrs.

79 Walking 6/7 of his usual speed, a man is the 25 Minutes too late. Find the usual time.

    a) 2 Hours 45.Minutes   b) 3 Hours
    c) 2 Hours 30.Minutes   d) None of these

80 The diameter of the driving wheel of a bus is 140 Cm. How many revolution per minute must the wheel make to keep a speed of 60 Km per hour

    a) 210   b) 230   c) 210   d) 250

81 The weigh of an object would be miniumum when it is placed at the

    a) North pole   b) South pole
    c) Equator   d) Centre of the earth

82 A car and a loaded truck are moving with the same speed along a road. As compared to the truck, the car shall possess.

    a) More kinetic energy   b) More potential energy
    c) Less kinetic energy   d) Less potential energy

83 When two bodies stick together after collision, the collision is said to be

    a) Partially elastic   b) Elastic
    c) Inelastic   d) None of the above.

84 A red hot steel bar is an example of

    a) Mechanical Energy   b) Vibrational Energy
    c) Kinetic Energy   d) None of the above.

85 The time taken by light to travel from the sun to the earth is approximately
    a) 8 seconds   b) 8 minutes   c) 8 hours   d) 8 light years

86 The velocity of sound is largest in
    a) Air   b) Water   c) Oil   d) Steel

87 The super sonic speed of an Aeroplane is expressed in
    a) Mach number   b) Decibel   c) Hertz   d) None of them

88 The quality of sound is judged by
    a) Its frequency   b) Its various over tones
    c) longer wave lengths   d) All the above

89 One can't hear sound on the moon because it has no ….
    a) Light   b) Atmosphere   c) Darkness   d) None of the above.

90 A spherical mirror is nothing but one
    a) A spherical ball polished on its surface
    b) A plane mirror only
    c) A large number of plane mirrors equally inclined to each other
    d) None of the above.

91 The type of radiation emitted by radio active substance are
    a) Alpha rays   b) Beta rays
    c) Gama rays   d) All of these

92 Which of the following comets appear after 76 years?
    a) Hailey's   b) Home's   c) Donati's   d) Alpha centuari

93 The angle in the case of water molecule is approximately
    a) 90 degrees   b) 180 degrees   c) 105 degrees   d) 75 degrees

94 Atoms with the same atomic number but different mass numbers are called
    a) Isotones   b) Isobars   c)Isomer   d) Isotopes

95 Which type of cell division occurs in cancer cells?
    a) Mitosis   b) Meiosis   c) both a & b   d) Cell division doesn't occur

96 The sensation of fatigue in the muscles after prolonged strenuous physical work is caused by
    a) decrease in supply of oxygen
    b) Minor wear and tear of muscle fibres
    c) Accumulation of lactic acid
    d) None of the above.

97 Milk, Meat and Eggs are good sources of

    a) Fats   b) Carbohydrates   c) Proteins   d) Vitamins

98 Saffron is dried
    a) Flower buds   b) Styles   c) Stigmas   d) Perianth

99 Animal which uses sound as its "eyes" is
    a) Dog   b) Bat   c) cat   d) snake

100 The computer speed is measured in
    a) Kilobyte   b) Bites   c) Hertz   d) Megabyte