

# Analogy

The meaning of analogy is 'similar properties' or similarity. If an object or word or digit or activity shows any similarity with another object or word or digit or activity in terms of properties, type, shape, size, trait etc., then the particular similarity will be called analogy. For example, cricket : ground and chess : table are the analogous pairs (why?). In fact, both pairs of words have similar relationship in terms of place of playing as cricket is played in the ground and similarly chess is played on the table. In this chapter, we will discuss different types of analogy because problems based on analogy are an important category of questions to be asked in almost all examinations of competitive level.

## TYPES OF ANALOGY

There are three types of analogy

- (1) Based on Words
- (2) Based on Numbers
- (3) Based on Letters

### 1. Based on Words

#### I. Tool & Object Based Analogy

This establishes a relationship between a tool and the object in which it works.

**Examples:**

Scissors : Cloth  
Saw : Wood

#### II. Synonym Based Analogy

In such type of analogy two words have similar meaning.

**Examples:**

Huge : Gigantic  
Benevolent : Kind

#### III. Worker & Tool Based Analogy

This establishes a relationship between a particular tool and the person of that particular profession who uses that tool.

**Examples:**

Writer : Pen  
Barber : Scissors

#### IV. Worker & Product Based Analogy

This type of analogy gives a relationship between a person of particular profession and his/her creations.

**Examples:**

Writer : Book  
Singer : Song

#### V. Causes & Effect Based Analogy

In such type of analogy 1<sup>st</sup> word acts and the 2<sup>nd</sup> word is the effect of that action.

**Examples:**

Work : Tiredness  
Race : Fatigue

### Type II: Double Analogy

In the following example, 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 the sign (::). The correct combination is given as one of the four alternatives (a), (b), (c) and (d). Find the correct combination.

**Example** 1. Owl : Screech :: ? : ?

- (a) Donkey : Neigh (b) Hoof : Pony  
(c) Ride : Wagon (d) Saddle : Relay

**Sol. (a)** Clearly, Owl's sound is called Screech. Similarly, Donkey's sound is called Neigh.

### 2. Based on Number

Number Analogy is a crucial step in solving questions on reasoning ability. The reasoning ability is checked mainly by the questions related to Number Analogy. The candidates are asked to identify and point out relationships, similarities or differences, and dissimilarities in a series or between groups of numbers.

**Example** 2. 1 : 226 : 15 :: 325 : ?

- (a) 19 (b) 18 (c) 17 (d) 16

**Sol. (b)**  $(15)^2 + 1 : 15 :: (18)^2 + 1 : 18$

### 3. Based on Letter

In this type of analogy, two groups of letters related to each other in same way, are given. The candidate is required to identify the relationship & choose a group of letters which is related in the same way to a 3rd group given in the question. These questions become easier to solve if you memorize the alphabetic positions of the letters in the alphabet. (eg: A=1, M=13, etc.)

**Example** 3. BCDE : PQRS :: WXYZ : ?

- (a) EFGH (b) KLMN (c) QJSP (d) TSUV

**Sol. (b)** Each letter of the 1st group is moved 14 steps forward to obtain the corresponding letter of the 2nd group. A similar relationship will exist between the 3rd and 4th groups.

### Mixed Analogy

In these types of analogy alphabet and number are mixed in the question as shown below:

**Example** 4. ACT : 60 :: PAI : ?

- (a) 90 (b) 144 (c) 100 (d) 75

**Sol. (b)** 60 is the product of place values of A, C and T. Similarly, the product of the place values of P, A and I is 144.

# EXERCISE

**DIRECTIONS (Qs. 1-50):** In each of the following questions, select the related letter/word/number from the given alternative.

1. Muslims : Mosque :: Sikhs : ?  
(a) Golden Temple (b) Madina  
(c) Fire Temple (d) Gurudwara
2. Traveller : Journey :: Sailor : ?  
(a) Water (b) Ship  
(c) Voyage (d) Crew
3. Perch : Fresh water :: Salt water : ?  
(a) Crocodile (b) Frog  
(c) Cod (d) Snake
4. Ornithologist : Birds :: Anthropologist : ?  
(a) Plants (b) Animals  
(c) Mankind (d) Environment
5. Venerate : Worship :: Extol : ?  
(a) Glorify (b) Homage  
(c) Compliment (d) Recommend
6. Teheran : Iran :: Beijing : ?  
(a) China (b) Japan  
(c) Turkey (d) Malaysia
7. Dark : Fear :: Honest : ?  
(a) Personality (b) Money  
(c) Treachery (d) Trust
8. Tanning : Leather :: Pyrotechnics : ?  
(a) Wool (b) Fireworks  
(c) Bombs (d) Machinery
9. Butter : Milk :: Book : ?  
(a) Author (b) Printing  
(c) Chapter (d) Paper
10. Mattock : Dig :: Shovel : ?  
(a) Break (b) Push  
(c) Scoop (d) Squeeze
11. Foresight : Anticipation :: Insomnia : ?  
(a) Treatment (b) Disease  
(c) Sleeplessness (d) Unrest
12. Cricket : Bat :: Hockey : ?  
(a) Field (b) Stick  
(c) Player (d) Ball
13. Energy : Joule :: Volume : ?  
(a) Solid (b) Capacity  
(c) Kilogram (d) Litre
14. Fire : Ashes :: Explosion : ?  
(a) Flame (b) Death  
(c) Sound (d) Debris
15. Man : Biography :: Nation : ?  
(a) Leader (b) People  
(c) Geography (d) History
16. 841 : 29 :: 289 : ?  
(a) 23 (b) 21  
(c) 17 (d) 13
17. 8 : 28 :: 27 : ?  
(a) 85 (b) 28  
(c) 8 (d) 64
18. 72 : 18 :: 56 : ?  
(a) 63 (b) 66  
(c) 22 (d) 124
19. 5.5 : 30.25 :: 11.0 : ?  
(a) 22.0 (b) 30  
(c) 55 (d) 121.00
20. 10 : 99 :: 09 : ?  
(a) 49 (b) 80  
(c) 69 (d) 79
21. 25 : 37 :: 49 : ?  
(a) 41 (b) 56  
(c) 60 (d) 65
22. 763 : 856 :: 637 : ?  
(a) 866 (b) 730  
(c) 737 (d) 637
23. 3 : 243 :: 5 : ?  
(a) 425 (b) 465  
(c) 546 (d) 3125
24. 6 : 222 :: 7 : ?  
(a) 210 (b) 465  
(c) 350 (d) 3125
25. 7584 : 5362 :: 4673 : ?  
(a) 2451 (b) 3562  
(c) 5487 (d) 5784
26. QDXM : SFYN :: UIOZ : ?  
(a) WKPA (b) QNLA  
(c) LPWA (d) PAQM
27. ASTN : ZTSO :: MSUB : ?  
(a) LRRC (b) LTTA  
(c) NTVC (d) LTTC
28. FILM : ADGH :: MILK : ?  
(a) ADGF (b) HGDE  
(c) HDGF (d) HEGF
29. MAD : JXA :: RUN : ?  
(a) ORK (b) OSQ  
(c) PRJ (d) UXQ
30. Dda : aDD : Rrb : ?  
(a) BBr (b) bRR  
(c) RRR (d) BrR
31. MUMBAI : LTLAZH :: DELHI : ?  
(a) CDKGG (b) DNRWJ  
(c) CDKGH (d) OPEN
32. CLOSE : DNRWJ :: OPEN : ?  
(a) PRHR (b) PRJQ  
(c) RPJB (d) RZWR
33. DOG : Z :: CAT : ?  
(a) X (b) Y  
(c) V (d) W

34.  $L \times M : 12 \times 13 :: U \times W : ?$   
 (a)  $21 \times 22$  (b)  $24 \times 26$   
 (c)  $9 \times 11$  (d)  $21 \times 23$
35. CFIL : ABCD :: ? : WXYZ  
 (a) YBEH (b) DCBA  
 (c) JHPS (d) XURO
36. CEDH : HDEC :: ? : PNRV  
 (a) VRNP (b) RNPV  
 (c) NRVP (d) VNRP
37. 60. IJL : MNP :: ? : UVX  
 (a) RSU (b) QRT (c) KLN (d) GHI
38. MASTER : OCUVGT :: LABOUR : ?  
 (a) NCDQWT (b) HDERWT  
 (c) NBECRWT (d) NEDRWT
39. Salt : Hypertension :: Sugar : ?  
 (a) Cholesterol (b) Diabetes  
 (c) Sweet (d) Dehydration
40. Confirmed : Inveterate :: Financial : ?  
 (a) Callow (b) Incredible  
 (c) Bankrupt (d) Knot
41. FATIGUE : REST :: DEHYDRATE : ?  
 (a) WEIGHT (b) HEAT  
 (c) WATER (d) LIGHT
42. Mitochondria : Energy :: DNA : ?  
 (a) Inheritance (b) Reproduction  
 (c) Locomotion (d) Immunity
43. Chisel : Sculptor :: Harrow : ?  
 (a) Gardener (b) Mason  
 (c) Blacksmith (d) farmer
44. Soil : Erosion :: Forest : ?  
 (a) Pollution (b) Degradation  
 (c) Dense (d) Deforestation
45. Red Blood Cells : Erythrocytes :: White Blood Cells : ?  
 (a) Thrombocytes (b) Lymphocytes  
 (c) Monocytes (d) Leucocytes
46. Qualm : Nausea :: Burn : ?  
 (a) Fresh (b) Sear  
 (c) Sensible (d) Wet
47. International Literacy Day : September 8 :: International Women's Day : ?  
 (a) March 8 (b) June 26  
 (c) April 22 (d) November 4
48. Bihu : Assam :: Onam : ?  
 (a) Karnataka (b) Kerala  
 (c) Jammu & Kashmir (d) Rajasthan
49. Eye : Ophthalmologist :: Music : ?  
 (a) Player (b) Conductor  
 (c) Pianist (d) Composer
50. Pesticide : Crop :: Antiseptic : ?  
 (a) Wound (b) Clothing  
 (c) Bandage (d) Bleeding

## Hints & Solutions

1. (d) Second is the place of worship for the first.
2. (c) Second is processed was done by first
3. (c) A perch is a fresh water fish, cod is salt water fish.
4. (c) Study of birds ornithologist. Study of mankind Anthropologist.
5. (a) Synonym of each other
6. (a) Country and capital based
7. (d) First lead to the second.
8. (b) Tanning is a process of manufacturing leather. Pyrotechnics is a process of fireworks
9. (d) Second is used to prepare the first.
10. (c) Mattock is a tool to dig hard ground similarly, shovel is a tool to scoop
11. (c) Synonym of each other.
12. (b) Stick  
 In cricket ball is hit with bat same in hockey ball is hit with stick
13. (d) Joule is the unit of energy, Litre is the unit of volume.
14. (d) Debris  
 Remain of fire is called Ashes, Remain of explosion is called Debris.
15. (d) History  
 The story of man Biography, The story of Nation History
16. (c)  $\sqrt{841} = 29$ ,  $\sqrt{289} = 17$
17. (a)  $8 \times 3 + 4 = 28$   
 $27 \times 3 + 4 = 85$
18. (c)  $(7 + 2) \times 2 = 18$   
 $(5 + 6) \times 2 = 22$
19. (d)  $(5.5)^2 = 30.25$   
 $(11.0)^2 = 121.00$
20. (b)  $(10)^2 - 1 = 99$   
 $(09)^2 - 1 = 80$
21. (d)  $5^2 = 25$   
 $7^2 = 49$   
 $6^2 + 1 = 37$   
 $8^2 + 1 = 65$
22. (b)  $763 + 93 = 856$   
 $637 + 93 = 730$
23. (d)  $3^5 = 243$   
 $(5)^5 = 3125$
24. (c)  $6^3 + 6 = 222$ ,  $7^3 + 7 = 350$
25. (a)  $7584 - 2222 = 5362$   
 $4673 - 2222 = 2451$
26. (a)  $Q \ D \ X \ M :: U \ I \ O \ Z$   
 $+2 \downarrow +2 \downarrow +1 \downarrow +1 \downarrow \quad +2 \downarrow +2 \downarrow +1 \downarrow +1 \downarrow$   
 $S \ F \ Y \ N \quad W \ K \ P \ A$

27. (d) A S T N :: M S U B  
 $\begin{array}{cccc} -1 & +1 & -1 & +1 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ Z & T & S & O \end{array}$       $\begin{array}{cccc} -1 & +1 & -1 & +1 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ L & T & T & C \end{array}$

28. (c) F I L M :: M I L K  
 $\begin{array}{cccc} -5 & -5 & -5 & -5 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ A & D & G & H \end{array}$       $\begin{array}{cccc} -5 & -5 & -5 & -5 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ H & D & G & F \end{array}$

29. (a) M A D :: R U N  
 $\begin{array}{ccc} -3 & -3 & -3 \\ \downarrow & \downarrow & \downarrow \\ J & X & A \end{array}$       $\begin{array}{ccc} -3 & -3 & -3 \\ \downarrow & \downarrow & \downarrow \\ O & R & K \end{array}$

30. (b) Dda : aDD :: Rrb : bRR

31. (c) M U M B A I :: D E L H I  
 $\begin{array}{cccccc} -1 & -1 & -1 & -1 & -1 & -1 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ L & T & L & A & Z & H \end{array}$       $\begin{array}{cccccc} -1 & -1 & -1 & -1 & -1 & -1 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ C & D & K & G & H & \end{array}$

32. (a) C L O S E :: O P E N  
 $\begin{array}{ccccc} +1 & +2 & +3 & +4 & +5 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ D & N & R & W & J \end{array}$       $\begin{array}{ccccc} +1 & +2 & +3 & +4 \\ \downarrow & \downarrow & \downarrow & \downarrow \\ P & R & H & R \end{array}$

33. (a) D O G : Z :: C A T : ?  
 $\begin{array}{ccc} \downarrow & \downarrow & \downarrow \\ 4 & +15 & +7 = 26 = 26 \end{array}$       $\begin{array}{ccc} \downarrow & \downarrow & \downarrow \\ 3 & +1 & +20 = 24 = 24 \end{array}$

34. (d) L × M :: U × W  
 $\begin{array}{cc} \downarrow & \downarrow \\ 12 & \times 13 \end{array}$       $\begin{array}{cc} \downarrow & \downarrow \\ 21 & \times 23 \end{array}$

35. (a) C  $\xrightarrow{-2}$  A     Y  $\xleftarrow{+2}$  W  
F  $\xrightarrow{-4}$  B     B  $\xleftarrow{+4}$  X  
I  $\xrightarrow{-6}$  C     E  $\xleftarrow{+6}$  Y  
L  $\xrightarrow{-8}$  D     H  $\xleftarrow{+8}$  Z

36. (a) C E D H :: V R N P  


37. (b) IJL : MNP :: QRT : UVX  
 $\begin{array}{ccc} +1 & +1 & +1 \\ \downarrow & \downarrow & \downarrow \\ I & J & L \end{array}$       $\begin{array}{ccc} +1 & +1 & +1 \\ \downarrow & \downarrow & \downarrow \\ M & N & P \end{array}$       $\begin{array}{ccc} +1 & +1 & +1 \\ \downarrow & \downarrow & \downarrow \\ Q & R & T \end{array}$       $\begin{array}{ccc} +1 & +1 & +1 \\ \downarrow & \downarrow & \downarrow \\ U & V & X \end{array}$

38. (a) M A S T E R :: L A B O U R  
 $\begin{array}{cccccc} +2 & +2 & +2 & +2 & +2 & +2 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ O & C & U & V & G & T \end{array}$       $\begin{array}{cccccc} +2 & +2 & +2 & +2 & +2 & +2 \\ \downarrow & \downarrow & \downarrow & \downarrow & \downarrow & \downarrow \\ N & C & D & Q & W & T \end{array}$

39. (b) The excess intake of salt causes hypertension. Similarly, high sugar in blood causes diabetes.

40. (c) Confirmed and inveterate are related terms. Similarly, Financial and Bankrupt are related terms.

41. (c) We take rest in the state of fatigue (the condition of being very tired).

Similarly, we drink water in the state of dehydration (the loss of water).

42. (a) Mitochondria is referred to as the powerhouse of the cell in which respiration of the cell in which respiration and energy production occur. DNA is the unit of inheritance.

43. (a) Here Tool-Worker relationship has been shown. Chisel is the tool of Sculptor. Similarly, Harrow is the tool of Gardener.

44. (d) Erosion destroys soil by means of rain, wind, streams etc. Similarly, deforestation refers to the loss of forest.

45. (d) Red Blood Cells are also called Erythrocytes. Similarly, White Blood Cells are called Leucocytes.

46. (b) Qualm cause nausea. Similarly, burn causes sear.

47. (a) International Literacy Day is celebrated on September 8 every year. Similarly, International Women's Day is celebrated on March 8.

48. (b) Bihu is celebrated in Assam. Similarly, Onam is celebrated in Kerala.

49. (d) Ophthalmologist is a person who is specialised in eye and its diseases. Similarly, composer is a person who composes music.

50. (a) Pesticides protect crops from insects and antiseptics protect wound from germs.