

## 4. Analogy

'Analogy' means 'correspondence'.

In questions based on analogy, a particular relationship is given and another similar relationship has to be identified from the alternatives provided. Analogy tests are, therefore, meant to test a candidate's overall knowledge, power of reasoning and ability to think concisely and accurately. Below are given some common relationships which will help you to detect most analogies better:

### COMMON RELATIONSHIPS

1. **Country and capital :**  
Ex. Afghanistan : Kabul  
Kabul is the capital of Afghanistan.
2. **State and capital :**  
Ex. Maharashtra : Mumbai  
Mumbai is the capital of Maharashtra.
3. **Country and currency :**  
Ex. India : Rupee  
Rupee is the currency of India.
4. **Instrument and measurement :**  
Ex. Barometer : Pressure  
Barometer is an instrument used to measure pressure.
5. **Quantity and units :**  
Ex. Length : Metre  
Metre is the unit of measuring length.
6. **Individual and group :**  
Ex. Sailors : Crew  
A group of sailors is called a crew.
7. **Animal and young one :**  
Ex. Cow : Calf  
Calf is the young one of cow.
8. **Male and female :**  
Ex. Horse : Mare  
Mare is the female horse.
9. **Animal and movement :**  
Ex. Duck : Waddle  
Waddling is the name given to the movement of the duck.
10. **Animal/thing and sound :**  
Ex. Lion : Roar  
Roar is the sound produced by a lion.
11. **Individual/thing and class :**  
Ex. Lizard : Reptile  
Lizard belongs to the class of Reptiles.
12. **Individual and dwelling place :**  
Ex. Dog : Kennel  
A dog lives in a kennel.
13. **Animals/things and keeping place :**  
Ex. Car : Garage  
A car is kept in a garage.
14. **Games and place of playing :**  
Ex. Badminton : Court  
Badminton is played on a court.

15. **Worker and tool :**  
Ex. Blacksmith : Anvil  
Anvil is the tool used by a blacksmith.
16. **Tool and action :**  
Ex. Needle : Sew  
A needle is used for sewing.
17. **Worker and working place :**  
Ex. Chef : Kitchen  
A chef works in a kitchen.
18. **Worker and product :**  
Ex. Mason : Wall  
A mason builds a wall.
19. **Product and raw material :**  
Ex. Prism : Glass  
Prism is made of glass.
20. **Part and whole relationship :**  
Ex. Pen : Nib  
Nib is a part of a pen.
21. **Pair relationship :**  
Ex. Shoes : Socks  
Shoes and socks go together.
22. **Study and topic :**  
Ex. Ornithology : Birds  
Ornithology is the study of birds.
23. **Word and intensity :**  
Ex. Anger : Rage  
Rage is of higher intensity than Anger.
24. **Word and synonym :**  
Ex. Abode : Dwelling  
Abode means almost the same as Dwelling. Thus, Dwelling is the synonym of Abode.
25. **Word and antonym :**  
Ex. Attack : Defend  
Defend means the opposite of Attack. Thus, Defend is the antonym of Attack.

#### COMPLETING THE ANALOGOUS PAIR

In this type of questions, two words are given. These words are related to each other in some way. Another word is also given. The candidate is required to find out the relationship between the first two words and choose the word from the given alternatives, which bears the same relationship to the third word, as the first two bear.

#### Solved Examples

**Ex.1 Botany : Plants :: Entomology : ?**

- (1) Snakes                      (2) Insects                      (3) Birds                      (4) Germs

**Sol.** Botany is the branch of science which deals with the study of plants. Similarly, Entomology is the branch of science which deals with the study of insects. So, the answer is (2).

**Ex.2 Vigilant : Alert :: Viable : ?**

- (1) Active                      (2) Hopeless                      (3) Feasible                      (4) Useful

**Sol.** 'Alert' is the synonym of 'Vigilant'. Similarly, the synonym of 'Viable' is 'Feasible'. So, the answer is (3).

#### CHOOSING THE ANALOGOUS PAIR

In the type of questions, a pair of words is given, followed by four pairs of words as alternatives. The candidate is required to choose the pair in which the words bear the same relationship to each other as the words of the given pair bear.

### Solved Examples

#### **Ex.3 Energy : Joule**

- (1) Axe : Grind                      (2) Ammeter : Current                      (3) Power : Ampere                      (4) Resistance : Ohm

**Sol.** Joule is the unit of measuring energy. Similarly, Ohm is the unit of measuring resistance. So, the answer is (4).

#### **Ex.4 Chimney : Smoke**

- (1) Tea : Kettle                      (2) Clay : Ceramic                      (3) House : Roof                      (4) Gun : Bullet

**Sol.** Smoke comes out of chimney and bullet comes out of gun. So, the answer is (4).

### **CHOOSING A SIMILAR WORD**

In this type of questions, a group of three/four words is given, followed by four other words as alternatives. The candidate is required to choose the alternative, which is similar to the given words.

### Solved Examples

#### **Ex.5 Lucknow : Patna : Bhopal : Jaipur**

- (1) Indore                      (2) Pune                      (3) Mysore                      (4) Shimla

**Sol.** Clearly, Lucknow, Patna, Bhopal and Jaipur are all capital cities of various Indian States (U.P., Bihar, M.P. and Rajasthan respectively). Similarly, Shimla is the capital of Himachal Pradesh. So, the answer is (4).

#### **Ex.6 Sitar : Guitar : Tanpura**

- (1) Trumpet                      (2) Violin                      (3) Harmonium                      (4) Mridanga

**Sol.** Sitar, Guitar and Tanpura are all string instruments. Violin is also a string instrument. So, the answer is (2).

### **MULTIPLE WORD ANALOGY**

In this type of questions, a group of three or four inter-related words is given. The candidate is required to trace out the relationship among these words and choose another group with similar relationship, from amongst the alternatives provided.

### Solved Examples

#### **Ex.7 Pen : Pencil : Ink**

- (1) Orange : Banana : Juice                      (2) Table : Chair : Wood  
(3) Cow : Milk : Curd                      (4) Fish : Shark : Water

**Sol.** Clearly, pen contains ink and pencil belongs to the same category as pen i.e. stationary. Similarly, orange contains juice and banana belongs to the same category as orange i.e. fruits. So, the answer is (1).

#### **Ex.8 Tehsil : District : State : Country**

- (1) Metropolitan : Megapolis : Town : City  
(2) Block : Colony : Zone : City  
(3) Province : District : State : Country  
(4) Madhya Pradesh : Maharashtra : Mumbai : Victoria Terminus

**Sol.** The given group contains four items of a hierarchical system, in the order from lowest to highest levels. A similar relationship exists among the components of (2). So, the answer is (2).

### **NUMBER ANALOGY**

This section deals with four types of questions:

1. Choosing a number related to a given number in the same manner as the two numbers of another given pair are related to each other;
2. Choosing a similarly related pair as the given number pair on the basis of the relation between the numbers in each pair;
3. Choosing a number similar to a group of numbers on the basis of certain common properties that they possess;
4. Choosing a number set similar to a given number set.

### Solved Examples

#### **Ex.9. 3 : 11 :: 7 : ?**

- (1) 22                      (2) 29                      (3) 18                      (4) 51

**Sol.** Clearly,  $3^2 + 2 = 11$ . Now,  $7^2 + 2 = 51$ . So, if the first number is  $x$ , the second number is  $x^2 + 2$ .

Thus, the relationship is  $x : x^2 + 2$ .

So, the answer is (4).

**Ex.10. 11 : 1210**

(1) 8 : 448

(2) 6 : 2160

(3) 7 : 1029

(4) 9 : 729

**Sol.** Clearly, the relationship is  $x : x^2(x - 1)$ . This relationship exists in (1). So, the answer is (1).

**Ex.11. Which number is like the given set of numbers? Given Set : (3, 17, 31)**

(1) 5

(2) 15

(3) 45

(4) 49

**Sol.** Clearly, the number in the given set are all prime numbers. 5 is also a prime number and so belongs to the same group. So, the answer is (1).

**Ex.12. Which set of numbers is like the given set? Given Set : (48, 24, 12)**

(1) (44, 22, 10)

(2) (46, 22, 11)

(3) (40, 20, 10)

(4) (42, 20, 10)

**Sol.** Clearly, in the given set, the first number is twice the second and the second number is twice the third. A similar relationship exists between the numbers in the group (40, 20, 10). So, the answer is (3).

### ALPHABET ANALOGY

In this type of questions, two groups of letters related to each other in some way, are given. The candidate is required to find out this relationship and then choose either a letter-group which is related in the same way to a third group provided in the question or a pair consisting of similarly related letter-groups.

### Solved Examples

**Ex.13. BEGK is related to ADFJ in the same way as PSVY is related to ....?....**

(1) LOQT

(2) ROUX

(3) OTUZ

(4) ORUX

**Sol.** Clearly, each letter of the first group in a pair is moved one step backward to obtain the corresponding letter of the second group.

B    E    G    K

-1↓   -1↓   -1↓   -1↓

A    D    F    J

P    S    V    Y

-1↓   -1↓   -1↓   -1↓

O    R    U    X

So, the answer is (4).

**Ex.14. ABCD : NPRT :: FGHI : ?**

(1) KLMN

(2) OQRT

(3) RTUW

(4) SUWY

**Sol.** Clearly, the first, second, third and fourth letters of the first group are moved 13, 14, 15 and 16 steps forward respectively to obtain the corresponding letters of the second group.

A    B    C    D

+13↓   +14↓   +15↓   +16↓

N    P    R    T

F    G    H    I

+13↓   +14↓   +15↓   +16↓

S    U    W    Y

## EXERCISE

**Direction (Q. 1 to Q. 25) :** In each of the following questions, there is some relationship between the two terms to left of :: and the Same relationship continues between the two terms to its right. Also in each question, one term either to the right of :: or to the left of it is missing. This term is given as one of the alternatives given below. Find out the missing term.

1. B : F :: E : ?  
 (1) H (2) T (3) I (4) J
2. BH : KQ :: FL : ?  
 (1) PV (2) PQ (3) SV (4) SQ
3. BDF : GIK :: PRT : ?  
 (1) UVW (2) UVZ (3) UWY (4) UWX
4. GrtK : KtrG :: FjbH : ?  
 (1) HbjF (2) HnbF (3) FbjH (4) HjbF
5. Ppk : kPP :: Llm : ?  
 (1) mlL (2) LmM (3) mLL (4) lMl
6. BDF : HIL :: MOQ : ?  
 (1) XVT (2) TVX (3) VTX (4) STW
7. LOGIC : BHFNK :: CLERK : ?  
 (1) XVRPA (2) QBKJA (3) LPRTU (4) JQDKB
8. XTOK : SPLI :: OKMP : ?  
 (1) JGMN (2) JGIN (3) JNGL (4) LJNM
9. HINDU : XCQAV :: KINGS : ?  
 (1) GCQDT (2) GCDQT (3) CGDQT (4) GCDET
10. GERM : MERG :: STAR : ?  
 (1) TSRA (2) RTSA (3) RTAS (4) TARS
11. Cow : Calf :: Lioness : ?  
 (1) Cub (2) Lion (3) pub (4) None of these
12. Cardiology : Heart :: Zoology : ?  
 (1) Science (2) insect (3) Eggs (4) None
13. Sky : Ground :: Ceiling : ?  
 (1) Road (2) Ground (3) Floor (4) None
14. Moon : satellite :: Earth : ?  
 (1) Sun (2) Planet (3) Solar system (4) Asteroid
15. Influenza : virus :: Typhoid : ?  
 (1) Bacillus (2) parasite (3) protozoa (4) Bacteria
16. Melt : Liquid :: Freeze : ?  
 (1) Ice (2) Condense (3) Solid (4) crystal
17. Paw : cat :: Hoof : ?  
 (1) Horse (2) Lion (3) Lamb (4) Elephant
18. Bank : River :: Coast : ?  
 (1) Flood (2) Waves (3) Sea (4) Beach
19. Ocean : Water :: Glacier : ?  
 (1) Refrigerator (2) Ice (3) Mountain (4) Cave

- Directions: (Q. 26 to Q. 28):** In each of the following Questions, there is a certain relationship between two given numbers on one side of :: and one number is given on another side of :: while another number is to be found from the given alternatives, having the same relationship with this number as the numbers of the given pair bear : choose the best alternative

- Directions (Q.29 & Q.30) :** In each of the following Questions, choose that set of numbers from the four alternatives sets, that is similar to the given set.

29. Given Set : (9, 15, 21)  
(1) (10, 14, 16) (2) (7, 21, 28) (3) (5, 10, 25) (4) (6, 9, 10)
30. Given Set : (14, 23, 32)  
(1) (15, 23, 31) (2) (14, 19, 24) (3) (13, 21, 29) (4) (12, 21, 30)

EXERCISE										ANSWER KEY										
Que.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Ans.	3	1	3	1	3	4	4	2	1	3	2	4	3	2	4	3	1	3	2	1
Que.	21	22	23	24	25	26	27	28	29	30										
Ans.	3	1	1	2	3	3	4	3	4	4										