01

Analogy

Analogy means similarity, i.e. having similar features. In questions based on analogy, a particular relationship between words/letters/numbers is given. Another similar relationship has to be identified from the alternatives provided.

To understand analogical relationship, let us consider following example.
e.g. 'College' is related to 'Students' in the same way as 'Hospital' is related to 'Patients'.
In the 'College', Education is given to 'Students'. In the same way, treatment is given to the 'Patient' in the 'Hospital'.

Analogy may be broadly divided into the following types

 1. Word Analogy   **2.** Number Analogy   **3.** Alphabet Analogy

1. Word Analogy

In this type of analogy, two words are given which are related to each other in a particular manner. Other word is also given followed by four alternatives. Firstly, the candidate is required to identify the relationship between the first two words. Then, the candidate is required to pick that word from the alternatives which bears exactly the same relationship to the third word, as the first two bears.

Here, some relationships are given, which are useful for solving questions based on analogy.

Country	Capital	Currency
Bangladesh	Dhaka	Taka
Iraq	Baghdad	Dinar
China	Beijing	Yuan
India	New Delhi	Rupee
UK	London	Pound
Japan	Tokyo	Yen
USA	Washington DC	Dollar
Russia	Moscow	Ruble
Greece	Athens	Euro

Occupation	Working Place	Working
Lawyer	Court	Legal Practice
Servant	House	Service
Beautician	Parlour	Make up

Occupation	Working Place	Working
Mechanic	Garage	Repairing
Waiter	Restaurant	Serving
Teacher	School	Teaching
Chef	Kitchen	Cooking
Sailor	Ship	Sailing

Animal	Sound
Cock	Crow
Duck	Quack
Cat	Mew
Frog	Croak
Snake	Hiss
Owl	Hoot
Jackal	Howl
Donkey	Bray

States of India	Capital
Sikkim	Gangtok
West Bengal	Kolkata
Goa	Panaji
Tamil Nadu	Chennai
Odisha	Bhubaneshwar
Bihar	Patna

The relationship in word Analogy can also be of the following types
- Antonyms and Synonyms
- Quantity and unit
- Measurement and Instrument
- Worker and tool relationship
- Individual and its dwelling

Example 1 Complete the second pair by choosing the appropriate alternative.

Madhya Pradesh : Bhopal : : Maharashtra : ?
(a) Ahmedabad
(b) Mumbai
(c) Chandigarh
(d) Kolkata

Sol. (*b*) As, 'Bhopal' is the capital of 'Madhya Pradesh'. Similarly, 'Mumbai' is the capital of 'Maharashtra.'

2. Number Analogy

In this type of analogy, numbers are given in a pair or group. The candidate has to find the relationship between the numbers or group of numbers. Then, he has to complete the incomplete pair by choosing the correct number from the given alternatives.

The relationship in number analogy can be of following types
- Even and odd numbers
- Multiplication and division of numbers
- Addition and subtraction of numbers
- Square roots of numbers

Example 2 Complete the second pair by choosing the appropriate alternative.

2 : 4 : : 3 : ?
(a) 20   (b) 21
(c) 24   (d) 9

Sol. (*d*) Second number is the square of first number.

i.e. $2^2 = 2 \times 2 = 4$ and $3^2 = 3 \times 3 = \boxed{9}$

3. Alphabet Analogy

In this type of analogy, there is a relationship between the alphabets or group of alphabets. The candidate has to complete the incomplete pair by choosing the correct letter or group of letters from the given alternatives. The candidate has to remember the position of letters in English alphabetical order to find out the required relationship.

The relationships between the letters can be of following types
- Vowels or consonants
- Increasing/decreasing position of letters
- Reverse order of position of letters

Here, following table is showing letters' position in English alphabetical series.

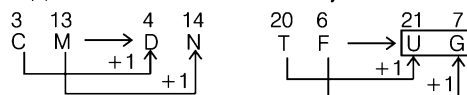| Forward	1	2	3	4	5	6	7	8	9
Alphabet	A	B	C	D	E	F	G	H	I
Backward	26	25	24	23	22	21	20	19	18
Forward	10	11	12	13	14	15	16	17	18
Alphabet	J	K	L	M	N	O	P	Q	R
Backward	17	16	15	14	13	12	11	10	9
Forward	19	20	21	22	23	24	25	26	
Alphabet	S	T	U	V	W	X	Y	Z	
Backward	8	7	6	5	4	3	2	1	

Example 3 Complete the second pair by choosing the appropriate alternative.

CM : DN : : TF : ?
(a) SH   (b) RT   (c) UG   (d) WG

Sol. (*c*) As,   Similarly,

Example 4 Complete the second pair by choosing the appropriate alternative.

E : 5 :: J : ?
(a) 15   (b) 10   (c) 12   (d) 20

Sol. (*b*) The positional value of E in English alphabetical order is 5. Similarly, the positional value of J is 10.

⏰ Practice Exercise

1. 'Dhaka' is related to 'Bangladesh', in the same way as 'Tokyo' is related to ....
   (a) UK (b) Afghanistan
   (c) France (d) Japan

2. 'Smell' is to 'Flower', in the same way as 'Taste' is to
   (a) Tongue (b) Water (c) Sweet (d) Food

3. 'Tree' is related to 'Forest', in the same way as 'Grass' is related to
   (a) Lawn (b) Garden
   (c) Park (d) Field

4. 'Doctor' is related to 'Patient', in the same way as 'Lawyer' is related to ....
   (a) Customer (b) Criminal
   (c) Magistrate (d) Client

5. 'Konkani' is related to 'Goa', in the same way as 'Dogri' is related to ....
   (a) Madhya Pradesh (b) Odisha
   (c) Jammu and Kashmir (d) Gujarat

Directions (Q. Nos. 6-10) *In the following questions, choose the word which will replace the question mark(?).*

6. Court : Justice : : School : ?
   (a) Teacher (b) Student
   (c) Education (d) Principle

7. Hot : Oven : : Cold : ?
   (a) Ice cream (b) Air conditioner
   (c) Snow (d) Refrigerator

8. Newspaper : Editor : : Film : ?
   (a) Actor (b) Producer
   (c) Director (d) Story writer

9. Cobbler : Shoe : : Carpenter : ?
   (a) Wood (b) Furniture (c) Iron (d) Gold

10. Pleasure : Sorrow : : Right : ?
    (a) Wrong (b) Wonderful
    (c) Happy (d) Sure

Directions (Q. Nos. 11-14) *In each of the following questions, choose the number which will replace the question mark(?).*

11. 1, 2, 4, 7 : 3, 4, 6, 9 :: ? : 2, 3, 5, 8
    (a) 0, 1, 3, 6 (b) 2, 4, 5, 8
    (c) 1, 3, 4, 7 (d) 3, 5, 6, 8

12. 63 : 21 :: 27 : ?
    (a) 6 (b) 9 (c) 1 (d) 3

13. 100 : 121 :: 144 : ?
    (a) 160 (b) 93 (c) 169 (d) 426

14. 5 : 125 :: 6 : ?
    (a) 225 (b) 216 (c) 400 (d) 30

Directions (Q. Nos. 15-20) *In each of the following questions, choose the letters' group which will replace the question mark(?).*

15. AFHO : CHFM : : GBDJ : ?
    (a) GBIM (b) GBLD (c) GPLD (d) IDBH

16. QTU : ILM : : JMN : ?
    (a) PSZ (b) BEF (c) WZA (d) UXB

17. RmpL : LpmR :: ? : AcdG
    (a) PQnw (b) GdcA (c) GcAd (d) GcdA

18. LLm : mlL :: TTs : ?
    (a) sTL (b) STT (c) Tts (d) stT

19. EGIK : LJHF : : SUWY : ?
    (a) ZXVT (b) TVXZ (c) LNPR (d) MOQS

20. F : 216 :: L : ?
    (a) 1728 (b) 1700
    (c) 1600 (d) 1723

Answers

1	(d)	2	(d)	3	(a)	4	(d)	5	(c)	6	(c)	7	(d)	8	(c)	9	(b)	10	(a)
11	(a)	12	(b)	13	(c)	14	(b)	15	(d)	16	(b)	17	(b)	18	(d)	19	(a)	20	(a)

Hints & Solutions

1. As 'Dhaka' is the capital of 'Bangladesh'. Similarly, 'Tokyo' is the capital of 'Japan'.

2. As, we can smell the flower similarly, we can taste the food.

3. As 'Forest' is made up of 'Trees'. Similarly, 'Lawn' is made up of 'Grass'.

4. 'Doctor' deals with 'Patient'. Similarly, 'Lawyer' deals with 'Client'.

5. 'Konkani' is the language of 'Goa'. Similarly, 'Dogri' is the language of 'Jammu and Kashmir'.

6. As, 'Justice' is provided in the 'Court'. In the same way, 'Education' is provided in the 'School'.

7. As, 'Oven' is used to make anything 'Hot'. In the same way, 'Refrigerator' is used to make anything 'Cold'.

8. As, 'Newspaper' is directed by the 'Editor'. Similarly, 'Film' is directed by the 'Director'.

9. As, 'Cobbler' works on 'Shoe'. Similarly, 'Carpenter' works on 'Furniture'.

10. As, 'Pleasure' is opposite of 'Sorrow'. In the same way, 'Right' is opposite of 'Wrong'.

11. As,
$$1 \xrightarrow{+2} 3 \quad 2 \xrightarrow{+2} 4 \quad 4 \xrightarrow{+2} 6 \quad 7 \xrightarrow{+2} 9$$
Similarly,
$$0 \xleftarrow{-2} 2 \quad 1 \xleftarrow{-2} 3 \quad 3 \xleftarrow{-2} 5 \quad 6 \xleftarrow{-2} 8$$

12. As, $63 \div 3 = 21$
Similarly, $27 \div 3 = \boxed{9}$

13. As, $100 = 10 \times 10$
$121 = 11 \times 11$
$144 = 12 \times 12$,
Similarly $\boxed{169} = 13 \times 13$

14. As, $5 \times 5 \times 5 = 125$
Similarly, $6 \times 6 \times 6 = \boxed{216}$

15. As,
$$A \xrightarrow{+2} C \quad F \xrightarrow{+2} H \quad H \xrightarrow{-2} F \quad O \xrightarrow{-2} M$$
Similarly,
$$G \xrightarrow{+2} I \quad B \xrightarrow{+2} D \quad D \xrightarrow{-2} B \quad J \xrightarrow{-2} H$$

16. As,
$$Q \xrightarrow{-8} I \quad T \xrightarrow{-8} L \quad U \xrightarrow{-8} M$$
Similarly,
$$J \xrightarrow{-8} B \quad M \xrightarrow{-8} E \quad N \xrightarrow{-8} F$$

17. As,
R m p L
L p m R
Similarly,
G d c A
A c d G

18. As,
L L m
m L
(Lower case)
Similarly,
T T s
s t T
(Lower case)

19. As,
E G I K
L J H F
Similarly,
S U W Y
Z X V T

20. As, F ⟶ (6) and $6 \times 6 \times 6 = 216$
(Since, positional value of F is 6)
Similarly, L → 12 and $12 \times 12 \times 12 = 1728$
(Since, positional value of L is 12)

➡ Try Yourself

1) 'Retirement' is related to 'Service' in the same way as 'Dismissal' is related to ....
(a) Agreement (b) Communication
(c) Employment (d) Adoption

2) 'Court' is related to 'Lawyer', in the same way as 'Hospital' is related to ....
(a) Patient (b) Medicine
(c) Nurse (d) Bed

3) 'Scissors' is related to 'Cloth', in the same way as 'Axe' is related to ....
(a) Wood (b) Steel (c) Grass (d) Paper

Directions (Q. Nos. 4-10) *In each of the following questions, choose the/word/number/letters' group which will replace the question mark(?).*

4) Illiteracy : Education : : Flood : ?
(a) Rain (b) Bridge (c) Dam (d) River

5) Cub : Lion : : Puppy : ?
(a) Doe (b) Stag (c) Leopard (d) Dog

6) 11 : 99 :: 10 : ?
(a) 90 (b) 80 (c) 70 (d) 50

7) 6 : 36 :: 13 : ?
(a) 196 (b) 169 (c) 144 (d) 100

8) Dda : aDD : : Rrb : ?
(a) BBr (b) bRR (c) RRR (d) BrR

9) AG : IO : : EK : ?
(a) LR (b) MS (c) PV (d) SY

10) FILM : ADGH : MILK : ?
(a) ADGF (b) HDGE (c) HDGF (d) HEGF

Answers

1	*(c)*	**2**	*(c)*	**3**	*(a)*	**4**	*(c)*	**5**	*(d)*
6	*(a)*	**7**	*(b)*	**8**	*(b)*	**9**	*(b)*	**10**	*(c)*