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ANALOGY

Analogy means correspondence.

In questions based on analogy, a particular relationship is given and another similar relationship has to identify from the alternatives provided. Analogy test are , therefore , meant to test a candidate over all knowledge , power of reasoning and ability to think concisely and accurately .

Below are given some common relationship, which will help you detect most analogies better.

1. COUNTRIES AND CAPITAL

Ex. Afghanistan: Kabul

Kabul is the capital of Afghanistan.

Some more examples are given below: -

Australia: Canberra	Canada: Ottawa	Japan: Tokyo
Austria: Vienna	Spain: Madrid	Italy: Rome
Bangladesh: Dhaka	Greece: Athens	Egypt: Cairo
Bhutan: Thimpu	China: Beijing	France: Paris
Iraq: Baghdad	Iran: Teheran	India: Delhi
Denmark:Copenhagen	Nepal: Katmandu	Cuba: Havana
Portugal: Lisbon	Kenya: Nairobi	Norway: Oslo
Sri Lanka: Colombo	Pakistan: Islamabad	Thailand: Bangkok
Indonesia: Jakarta	Russia: Moscow	UK: London
USA: Washington		

2. States and Capital

Ex. Maharashtra: Mumbai

Mumbai is the capital of Maharasthra

Karnataka:Banglore	Assam: Dispur	Bihar: Patna
Orissa:Bhubaneshwar	Rajasthan: Jaipur	Sikkim: Gangtok
Gujarat: Ahmedabad	U.P: Luknow	Kerala: Trivandrum
Himachal Pradesh: Shimla	Meghalya: Shilong	Nagaland: Mizorzm
Tamilnadu: Chennai	AP: Hyderabad	West Bengal: Kolkata

3. Country and Currency

Ex. Rupee: India

Argentina: Peso	Bangladesh: Taka	Burma: Kyat
China: Yuan	Greece: Drachma	Iran: Rial
Iraq: Dinar	Japan: Yen	Korea: Won
Kuwait: Dinar	UK: Pound	USA: Dollar
Thailand: Baht	UAE: Dirham	Turkey: Lira
Spain: Pesta	Russia: Rouble	Germany: Mark
Netherlands: Guilder	Sweden: Krona	

Quantity and Unit

Ex. Length: Meter

Mass: Kilogram	Time: Second	Force: Newton
Energy: Joule	Resistance: Ohm	Volume: Litre
Angle: Radians	Power: Watt	Potential: Volt
Work: Joule	Current: Ampere	Pressure: Pascal
Area: Hectare	Temperature: Degrees	Conductivity: Mho
Luminosity: Candela	Magnetic Field: Oersted	

6 Individual and Group

Ex. Sailor: Crew

Cattle: Herd	Sheep: Flock	Flower: Bouquet
Bees: Swarm	Riders: Cavalcade	Man: Crowed
Grapes: Bunch	Singer: Chorus	Artist: Troupe

Soldier: Army	Fish: Shoal	Nomads: Hoarde
Players: Team	Musician: Band	Pupils: Class
Pilgrims: Caravan	Geese: Gaggle	Chicken: Brood
Termites: Colony	Goods: Stock	Drawers: Chest

7 Animal and Young one

Ex. Cow and Calf

Bear: Cub	Hen: Chick	Cat: Kitten
Horse: Colt/Filly/Foal	Lion/Tiger: Cub	Man: Child
Duck: Duckling	Sheep: Lamb	Insect: Larva
Butterfly:Caterpillar	Stag: Fawn	Frog: Tadpole
Dog: Puppy	Deer: Fawn	Swan: Cygnet
Cockroach: Nymph		

Male and Female

Ex. Horse: Mare

Dog: Bitch	Bull: Cow	Cock: Hen
Drone: Bee	Stag: Doe	Lion: Lioness
Colt: Filly	Bullock: Heifer	Gander: Goose
Fox: Vixen	Drake: Duck	Bachelor: Spinster
Nephew: Niece	Son: Datghter	Lord: Lady
Brother: Sister	Wizared: Witch	Monk: Nun
Master: Mistress	Tutor: Governess	Earl: Countess

9.Animal and Movement

Bird: Fly	Cock: Strut	Eagle: Swoop
Owl: Flit	Bear: Lumber	Donkey: Trot
Elephant: Amble	Horse: Gallop	Lamb: Frisk
Loin: Prowl	Mouse: Scamper	Rabbit: Leap

10. Animal/Thing and Sound

Donkey: Bray	Frog: Crock	Goat: Bleat
Horse: Neigh	Snake: Hiss	Jackal: Howl
Mice: Squank	Cat: Mew	Cattle: Low
Camel:Grunt	Owl: Hoot	Sparrow: Chirp
Crow: Caw	Duck: Quack	Hen: Cackle
Cock: Crow	Elephant: Trumpet	Monkey: Gibber
Thunder: Roar	Leaves: Rustle	Rain: Patter
Bells: Chime	Drum: Beat	Coin: Jingle

11. Individual/ Things and Class

Man: Mammal	Buterfly: Insect	Whale: Mammal
Ostrich: Bird	Snake: Reptile	Rat: Rodent
Frog: Amphibian	Pen: Stationery	Curtain: Drapery
Chair: Funiture	Cup: Crockery	Shirt: Garment

12. Individual and Dwelling Place

Ex. Dog: Kennel

Bee: hive	Bird: Nest	Cow: Byre/Pen
Eagle: Eyrie	Hare: Burrow	Horse: Stable
Lion: Den	Mouse: Hole	Owl: Barn
Pig: Sty	Spider: Web	Convict: Prison
Eskimo: Igloo	Gypsy: Carvan	King: Palace
Knight: Mansion	Lunatic: Asylum	Monk: Monastery
Nun: Convent	Peasant: Cottage	Soldier: Barracks

13. Animal/ thing And Keeping Place

Ex. Car: Garage

Aeroplane: Hanger	Bees: Apiary	Birds: Aviary
Animal: Zoo	Cloths: Wardobe	Fish: Aquarium
Grains: Granery	Guns: Armoury	Curios: Museum
Medicine: Dispensary	Patient: Hospital	Wine: Cellar

14. Workers and Tool

Ex. Blacksmith: Anvil

Carpenter: Saw	Chef: Knife	Woodcutter: Axe
Auther: Pen	Soldier: Gun	Warrior: Sword
Docter: Stethoscope	Farmer: Plough	Surgeon: Scalpel
Gardener: Harrow	Mason: Plumbline	Sculptor: Chinsel
Labourer: Spade	Tailor: Needle	

15.tool and Action

Ex. Needle and Sew

Knife: Cut	Gun: Shoot	Spoon: Feed
Binocular: View	Sword: Slaughter	Shovel: Scoop
Chisel: Carve	Oar: Row	Axe: Grind
Auger: Bore	Spade:Dig	Shield: Guard
Mattock: Dig	Pen: Write	Spanner: Grip
Tongs: Hold	Microscope: Magnify	Loudspeaker: Amplify

16. Workers and Working Place

Ex. Chef: Kitchen

Farmer: Field	Teacher: School	Clerk: Office
Sailor: Ship	Engineer: Site	Warrior: Battlefield
Doctor: Hospital	Servant: House	Grocer: Shop
Painter: Gallery	Waiter: Restaurant	Worker: Factory
Umpire: Pitch	Gambler: Casino	Beautician: Parlor
Artist: Theatre	Actor: Stage	Mechanic: Garage
Lawyer: Court	Scientist: Laboratory	Astronomer:Obsevatory

17. Workers and Product

Ex. Manson: Wall

Choreographer: Ballet	Dramatist: Play	Cobbler: Shoe
Editor: Newspaper	Producer: Film	Chef: Food
Architect: Design	Tailor: Clothes	Poet: Poem
Farmer: Crop	Auther: Book	Goldsmith: Ornament
Carpenter: Furniture	Butcher: Meat	Teacher: Education

18. Product and raw Material

Ex. Prism: Glass

Butter: Milk	Cloth: Fibre	Paper: pulp
Wine: Grapes	Fabric: Yarn	Wall: Brick
Road: Asphalt	Furniture: Wood	Book: Paper
Shoes: Leather	Pullover: Wool	Sack: Jute
Omelette: Egg	Metal: Ore	Jewellery: Gold
Rubber: Latex	Linen: Flax	Jaggery: Sugarcane
Oil: Seed		

19. Part and Whole Relationship

Ex. Pen: Nib

Pencil: Lead	Class: Student	Clock: needle
Circle: Arc	House: Room	Car: Steering
Aeroplane: Cockpit	Book: Chapter	Fan: Blade
Cart: Wheel		

20. Pair Relationship

Ex. Shoes: Socks

Shirt: Trouser	Chair: Table	Lock: key
Saree: Blouse	Pencil: Eraser	Door: Window
Cup: Saucer	Horse: Carriage	Question: Answer

21. Study Topic

Ex. Ornithology: Birds

Anthropology: Man	Entomology: Insect	Botany: Plant
Seismology: Man	Cadilogy: Heart	Mycology: Fungi
Pathology: Disease	Physiology: Body	Haematology: Kidney
Palaeontology: Fossils	Ichthyology: Fishes	Herpeology:Ambhibian
Phycology: Algae	Pedology: Soil	Nephrology: Kidney
Taxonomy:Classification	Selenography: Moon	Eccrinology: Secretion

22. Word and Intensity

Ex. Anger: Rage

Wish: Desire	Touch: Push	Kindle: Burn
Sink: Drown	Qurrel: War	Error: Blunder
Famous: Renowned	Unhappy: Sad	Refuse: Deny
Crime: Sin	Moisten: Drench	Speak: Shout

23.Word and Synonym

Ex. Abode: Dweling

Blend: Mix	Solicit: Request	Ban: Prohibition
Flaw: Defect	Fierce: Voiolent	Fallacy: Illusion
Substitute: Replace	Mend: Repair	Alight: Descend
Pesume: Assume	Brim: Edge	House: Home
Sedate: Calm	Dissipate: Squander	Dearth: Scarsity
Abduct: Kidnap	Vacant: Empty	Prsage: Predict

Word and Antonym

Ex. Attack: Defend

Advance: Retreat	Sink: Float	Crual: Kind
Robust: Weak	Best: Worst	Gentle: Harsh
Deep: Shallow	Fresh: Stale	Ignore: Notice
Cordial: Hostile	Initial: Final	Lethargy: Alertness
Affirm: Deny	Mourn: Rejoice	Kindle: Extinguish
Lend: Borrow	Condense: Expand	Create: Destroy
Gradual: Abrubt	Chaos: Peace	

Type 1 Completing The Analogus pair

1. Giant: Dwarf:: Genious : ?

a. Wicked b. gentle c. Idiot d. tiny

Sol. Dwarf is the antonym Of Giant. Similarly, the antonym of Genius Is Idiot

2.Cattle: Herd :: Sheep : ?

a. Flock b. swarn c. shoal d. mob

Sol. herd is a group of cattle similarly; flock is a collection of sheep

3. Meningitis: Brain :: Cirrhois : ?

a. Lungs b. brain c. liver d. heart

Sol. First is a disease which effect the second

4. Horse: Jockey :: Car: ?

a. Mechanic b. Chauffeur c. Steering d. Brake

Sol first is driven by the second

5 Fruit: Banana :: mammal : ?

a. cow b. snake c.fish d. sparrow

Sol. first denote the class to which the second belongs

6. Rat: cat :: Worm : ?

a. Fishing b. earth c. bird d.silk
Sol.second feed the first

7 Walking: Running:: Smiling : ?

a. Feeling b.Laughing c. face d. Weeping

Sol second is the more intense form of the first

8. Eye : Wink :: Heart : ?

a. Move b. Throb c. Pump d. Quiver

Sol second denote the activity of the first

9 house : garbage :: ore : ?

a. Rubbish b. gangue c. sand d. dregs

Sol. the waste of the house is called garbage. simillarly, the impurities in the ore are called ganuge

10. fire : extinguish :: thirst : ?

a.quench b. satiate c mitigate d.drink

sol second is the name given to the act of doing away with the first

11. wizard : witch :: monk : ?

a. madam b. widow c. nun d. virgin

sol. second is feminine gender of the first

12. connoisseur : art :: gourmet : ?

a. food b. money c drink d.flesh
sol first has good tatse for the second

Type -2 Direct/Simple Analogy

1.Apparel is related to cloth in the same way as footwear is related to...?

a. Material b. leather c. cobbler d. shoes e. sandal

Sol first is made by other

2. Which of the following is related to Melody in the same way as Delicious is related to Taste?

a. Voice b. Speak c. Tongue d. Highness

Sol Delicious represents good taste. Similarly, Melody describe pleasant Voice

3. Wave is the related to air in the same way as Ripples is related to.....?

a. Wind b. Water c.Strom d. Smoke

Sol Wave travel in air,ripples traval in water

4.Paddy is related to Field in the same way as Steel is related to .....?

a.mine b. factory c.Iron D.Ore

5. Tree is related to sapling in the same way as horse is related to.....?

a.pony b. mule c. cub d. foal e. puppy

Sol second is the place where the first is grown/produce

Type 3- Choosing The Analogus Pair

1. Darekness: Lamp
a. Fatigue : Exercise b.Thirst : Water c.Medicine : Illness d. Study:Classroom

Soln. Just as a lamp eliminates daerkness, so also water eliminates thirest.

2. Fish: Shoal

a. Audience: Theatre b. Shark: School c.Elephant:Flock d.Whale:Herd

Soln. A group of fish is called shoal. Similarly, a group of elephants is called flock.

So, the answer is (c).

3. Energy: Joule
a.Axe:Grind b.Ammeter:Current c. Power : Ampere d.Resistance : Ohm

Soln. Joule is the unit of measuring energy.Similarly ohm is the unit of measuring resistance . So the answer is (d).

TYPE 4 - Choosing a similar word

1. Iron :copper:zinc
a.ceramic b.carbon c.silver d.coke

Soln. answer is (c). All are metals.

2. Jute :cotton:wool
a.terylene b.silk c.rayon d.nylon

Soln. answer is (b). All are natural fibres.

3. Calf:Kid :Pup
a.infant b.young c.larva d.animal

Soln. anwer is (c). All are young one of animals.

4. Potato:Carrot:Raddish
a.Tomato b.Spinach c.Sesame d.Groundnut

Soln. answer is (d). All grows underground.

5.Marble: Slate: Gneiss

a.Quartzite b.Limestone c.Coal d.Sandstone Soln. anwer is (a). All are metamorphic rocks.

TYPE - NUMBER BASED

1. 14 : 9 :: 26 : ?
a. 12 b.13 c.15 d.31

Soln . answer is (c). The relationship is (2x-4): x

2. 8 : 28 :: 27 : ?
a.55 b.63 c.64 d.65

Soln. answer is (d). The relationship is x*3: (x+1)*3 +1

3. 42 : 56 :: 72 : ?
a. 81 b.90 c.92 d.100

Soln. answer is (b). 42=6x7, 56=7x8, 72=8x9 so missing fig is 90 = 9x10 .

4. 49 : 81 :: 100 : ?

a.64 b.144 c.169 d.none of these

Soln. answer is (b).The relationship is x*2 : (x+2)*2

Classification

type 1 : choosing the odd word

ex.1 a. zebra b. lion c. tiger d.horse e.giraffe

Soln. here all except, horse are wild animals

ex2. a. parrot b.bat c.crow d . sparrow e.pigeon

Soln. here all except bat belongs to class of birds while bat is a mammal.

ex.3 a. copper b. zinc c.brass d.aluminium e.iron

Soln . here all except brass are metals while brass is an alloy.

ex.4 a. apple b. marigold c. rose d. lily e. lotus

Soln. here all except apple are flower while apple is a fruit .

ex.5 a. january b . may c. july d. august e.November

Soln here all except november are months having 31 day .

ex6. a. amethyst b. ruby c.marble d. sapphire e. diamond

Soln . here all except marble are precious stone .

ex.7 a. ginger b.onion c. beetroot d. coriander e. potato

Soln . her all except coriander are modified stem

ex.8 a. bake b. peel c. fry d. boil e.roast

Soln . here all except peel are different form of cooking .

ex.9 a. pistol b.sword c.gun d. rifle e. cannon

Soln . here all except sword are fire arms and can be used from a distance

ex.10 a. cathedral b. mosque c.church d. monastery e.temple

Soln . here all except monastery are place of worship while monastery is the place where monks stay.

TYPE: CHOOSING THE ODD PAIR

Ex.1 a. blacksmith: anvil b. Carpenter: saw c. barber: scissor d. Goldsmith: ornament e. sculptor: chisel

Soln. the answer is (d). In all other pairs, second is the tool used by the first.

Ex.2 a. painter: gallery b. actor: stage c. mason: wall d farmer: field e. worker: factory

Soln. the answer is (c). In all other pairs second is the working place of the first.

Ex.3 a. cow : calf b. dog : bitch c. lion : cub d. tortoise : turtle e. insect : larva

Soln . Clearly , the answer is b. In all other pairs second is the young one of other.

Ex.4 a. volume: litre b. time: second c. length: metre d. resistance: ohm e. pressure : barometer

Soln . Answer is (e). In all other pairs, second is the unit to measure the first.

Ex. 5. a. White: dirty b. easy: difficult c. brave: coward d . end : beginning

Soln . Answer is (a). In all other pairs, the two words are antonyms

TYPE- CHOOSING THE ODD NUMERALS

Ex.1. a. 13 b.17 c.23 d.63 e.71

Soln. Each of the number except 63 is the prime nos. hence answer is (d).

Ex. 2 a. 12 b.25 c.37 d. 49 e.57

Soln. 37 is the only prime nos in the group. Hence answer is (c).

Ex.3 a. 25 b.36 c. 78 d. 144 e.196

Soln. Each of the number except 78 is a perfect square . Hence answer is (c).

Ex.4 a. 131 b. 151 c. 161 d. 171 e.191

Soln. The sum of the digits of each of the number except 161 is an odd number. Hence answer is (c).

Ex. 5 a. 751 b. 734 c. 981 d.853 e.532

Soln. In each number except 751, the difference of the first and the third digit is equal to the middle digit.

Hence answer is (a)

TYPE - CHOOSING THE ODD LETTER GROUP

Ex.1 a. BD b. IK c. PN d.SU e. WY

Soln . The anwer is (c). All other group consist of two alternate letters in order while in this group, they are in reverse order.

Ex.2 a. BCD b. KMN c. QRS d. GHI e. WXY

Soln . The anwer is (b). All other group consist of three consecutive letters while this one doesnot.

ex.3 a. POCG b. KLIZ c. BUDX d. FQMV e. ARTG

Soln . the answer is (d) . All other group consist of one vowel each but this group doesnot .

ex.4 a. CZHK b. MLAG c. XUBU d. SENO e.YDFB

Soln . The answer is (c). This is the only group in which one letter has been repeated.

ALBHABETS

1 11 21
A K U
B L V
C M W
D N X
E O Y
F P Z
G Q
H R
I S
J T

OPPOSITE LETTERS
(SUM IS 27)
UF BY LOVE
SHIRT GAZ
PK MN JQ
CX DW

E	J	O	T	Y
5	10	15	20	25

Although such question are very simple, yet by doing them in a systematic manner you can save some extra seconds. We suggest that you perform recalculation .In this method,

1) Subtract the numbers if both the direction are same
2) Add the numbers if the directions are opposite

For example: 1) ABCDEFGHIJKLMNOPQRSTUVWXYZ

Which letter would be the seventh to the right of the eleventh letter from?

The right end 1)K 2) W 3) J 4) U 5) none of these

Since both directions are same (right, right) we request we subtract 7

From 11.Hence the answer would be the 4th from the right that is, W

Some more examples are given below.

3) Which letter is seventh to the right of the thirteen letters from the left?

a) S b) T c) U d) V e) none of these

sol: Since we want the seventh letter to the right of the thirteen letter from the left -directions are opposite -hence we add 7+13=20 .Hence the answer is 20th from the left . Now 20th from the left means 26-20+1=7th from right (note this step). Hence answer is T.

You must have understood the method of pre-calculation by now .The trick is to calculate the actual position of the required letter before going to search for it .Now there may be some variations to the above type of problem. Some variations are presented below. See how we precalculate the position of the required letter.

Ex: 3If the above alphabet is written in reverse order, which will be the eighth letter to the right of O?

Sol: The letter which is eighth to the right of O when the alphabet is , reversed must be presently eighth to the left of O. Hence it is G .

Ex:4 If the first half of the alphabet is written in reverse order which letter would be the nineteenth letter from the right ?

a)F b) G c) E d) H e) none of these

sol: Since the second half is not reversed the first 13 letters would be the same when counting is done from right .But next letters after 13th will be actually from the left end(the 14th letter would be A) Hence the

Some more rules on English alphabet series

a)Question based on dropping or deleting of letters in the english alphabet at regular intervals

Ex- every third letter from left to right of the English alphabet is dropped. Find the 7th letter from the left of the new series obtained.

sol: In the English alphabet ,every third letter is dropped from the left (given) ,Hence the new series will be like ,

AB C DE F GH I JK L MN O PQ R ST U VW X YZ

That is ; A B D E G H J K M N P Q S T V W Y Z

Clearly, 7th letter from the left in the new series is J

Quicker method: Above discussed method is lengthy and time consuming. Therefore you need a quicker method to solve such kind of problems.

Question says that every 3rd letter is dropped in the original series that is we are left with two letters after every dropping of letters. Here 2 is the key figure .We have to seek a digit which is just les than 7 but divisible by 2. In this case the required digit is 6. Now we do the following operations to get the required answer.

7th letter from the left in the new series = 7+6/2=10th letter from the left in the original series=J

Similarly, you can find any letter at a particular position in the new series.

Question based on reversed English alphabet series.

The English alphabet series can be reversed in many ways. Some of them are discussed below

1) The whole English Alphabet is reversed

2) First half of the series is reversed

3) Second half of the series is reversed

4) Many sections of the English alphabet series are reversed

To solve the questions of the Reversed English alphabet series, you should

Remember the basic rule, that is:

Mth element counting from left to right of a series of N characters is equal to the (N +1-M)th element counting from right to left of that series.

let us take a example :

Let us take the english alphabet series as given below:

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26

Suppose we have to find the position of L in the above series counting from right to left.

We know that the English alphabet has 26 characters.

Hence N =26

Position of L in English alphabet starting from A (left to right) is 12. Hence M=12

Hence Position of L in the above series is from right to left is (26+1-12)=15

Let us take a typical example: Suppose first five letters, then next six letters, then next 7 letters and then after last 8 letters of the following English alphabet series are reversed.

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Then you are asked to find I) 4th II) 20th elements from the left of the new series .How will you proceed to get the answer? Let us see.

According the question, first 5, then next 6,7,8 letters of the English alphabet are reversed.

Hence we obtain a new series as given below

EDCBA / KJIHGF / RQPONML / ZYXWVUTS
1 2 3 4

We have to find i) 4th letter from the new series, 4th letter falls into group 1

Hence fourth letter in group 1= (5+1-4)=2nd letter from the left in the

Original series.(refer to the basic rule)

II) 20th letter from the left of the new series falls into the group 4.There are

8 characters in-group 4.We have to find second letter of the group 4

(Since 5 letters of group 1, 6 letters of group 2 and 7 letters of group 3

Does not effect the position of letter that falls into the group 4 that is

20=5+6+7+2) 2nd letter in the group 4 =18+(8+1-2)=25th letter from the

Left in the original series=Ys

Remember: - If we want to go back 3 places back from c then answer will be z. similarly if we want to go back 5 places back from the alphabet e then answer will be z.

C-3 = Z

E-5 = Z

C- 5 = X (26+3-5=24 which is the position of x)

SERIES COMPLETION

TYPE-1 :- Alphabet series

a) Increasing by a definite number

e.g i) IJKL? (each letter increases by 1)

ii) AGMSY? (each letter increases by 6 place to its right position)

b) Decreasing by a definite number

e.g. i) ZXVTRP ? (each letter decreases by 2 places to its left)

c) Increasing successively

e.g. DEGJNS? (+1,+2,+3,+4,+5)

d) Decreasing successively

e.g. i) ZYWTP (-1,-2,-3,-4 ..)

ii) ZTOKHFE (-6,-5,-4,-3,-2,-1)

e) Decreasing and Increasing by a constant value.

e.g. i) DFCEBDACZ (+2,-3,+2,-3,...)

TYPE-II :- ALPHANUMERIC SERIES

EX-1: Z1A, X2D,V6G,T21J,R88M, P445P,?

First letter: ZXVTRP (-2,-2,-2,.....)

Second letter: ADGJMP (+3, +3,+3,...)

Series of numerals: 1,2,6,21,88,445 (x1+1, x2+2, x3+3...)

So next term is N2676S.

EX.2:- 2Z5,7Y7,14X9,23W11,34V13,?

First numeral- 2,7,14,23,34 (+5,+7,+9,+11..)

Second letter- ZYXWV (decreases by 1 each time)

Third numeral- 5,7,9,11,13 (increases by 2 each time)

EX-3 :- W-144 , U-121, S-100, Q-81,?

First letter- decreases by 2 each time

Second numeral- square of 12,11,10,9,8..

Type-III :- Continuous patterns series

Ex-1 : ab_ _ baa_ _ ab_

options i) aaaaa ii) aabaa iii) caabab iv) baabb

solution: our answer is ii) . Here series aba is repeated

Ex-2 :ab_aa_bbb_aaa_bbba

options i) abba ii) baab iii) aabb iv) abab

Solution- our answer is ii) . The series is abb/aaabbb/aaaabbbb/a. Thus the letter are repeated twice , then thrice , then four times and so on .

Ex.3 - _bc_ca_aba_c_ca

Options i)abcbb ii)bbbcc iii)bacba iv)abbcc

Solutions- our answer is i) . The series is abc/bca/cab/abc/bca. Thus the letter change in cyclic order .

Ex.4- _c_bd_cbcda_a_db_a

Options i) adabcd ii) bdbcba iii) cdbbca iv)daabbc

Solutions- our answer is i). The series is acdb/dacb/cdab/acdb/da. Each group of four letters contains the letters of the previous group in the order - third , first , second and fourth.

Ex.5:- a_bb_baa_bbb_aa_

Options i) aabba ii) bbaab iii)abaaa iv)baabb

Solutions:- our answer is iii). The series is aabbbb/aaabbb/aaaa. At each step , the number of a's increases by one while the number of b's decrease by one.

Ex.6- _aba_cabc_dcba_bab _a

Options i) abdca ii) bcadc iii) abcdb iv) cbdaa

Solutions- Our answer is i) . The series is aababcabcd/dcbacbabaa. The letters equidistant from the beginning and the end of the series is same .

Ex.7- mnonopqopqrs_ _ _ _ _

Options- i) mnopq ii)oqrst iii)pqrst iv) qrstu

Solutions- our answer is iii) . The series is mno/nopq/opqrs

CODING DECODING

Type I: Letter coding

Case- I To from the code for another word (coding)

Ex-1) In a certain code, TEACHER is written as VGCEJGT .How is children written in that code?

a) EJKNEGTP b) EGKNFITP C) EJKNFGTO d) EJKNFTGP

Solution : Each letter in the word "TEACHER " is moved two steps forward to obtain the corresponding letter of the code.

T E A C H E R : Ans : V G C E J G T

(Each letter is increasing by 2)

Similarly we have

C H I L D R E N Ans: E J K N F T G D

(Each letter is increasing by 2)

Ex-2) In a certain code language , RUSTICATE is written as QTTUIDBSD ,How would (Each letter is increasing by 2)

STATISTIC be written in thqt code?

a) RSBUJTUHB b) RSBUITUHB c) RSBUIRSJD d)TUBUITUMB

Solution: Clearly , the middle letter of the word remains the same in the code. Each of the first two and the last two letters of the word is moved one step backward ,while each of the remaining letters is moved one step forward to obtain the corresponding letters of the code.

R U S T I C A T E

Ans: QTTUIDBSD

Similarly we have

S T A T I S T I C

Ans: RSBUITUHB

So the required code is RSBUITUHB. Hence the answer is b

Ex- 3) If ROAST is coded s PQYUR in a certain language, then how will SLOPPY be coded in coded in that language?

a) MRNAQN b) NRMNQA c) QNMRNA d) RANNMQ

Sol: Clearly the letters in the word ROAST are moved alternately two-step backward and two steps forward to obtain the letters of the code. Thus we have:

R O A S T Ans: (PQYUR). S L O P P Y Ans: (QNMRNA)

So required answer is c

Ques:5) If HEALTH is written as GSKZDG , then how will NORTH be weitten in that

Code?

a) OPSUI b) GSQNM C) FRPML d) IUSPO

Sol: Clearly the letters of the given word are written in a reverse order and then each letter is moved one step backward to obtain the code.

Reversing the order of the letter in NORTH, we get HTRON, thus we have

H T R O N Ans: (G S Q N M) Hence the answer is b

Ques:6) In a certain code , BREAKTHROUGH is written as EAOUHRBRGHKT. How is

DISTRIBUTION written that code?

a) TISTBUONDIRI B) STTIBUONRIDI c)STTIBUDIONRI d)RISTTIBUDION
e) None of these

Sol: Let us divide the letters of the given word into pair and label there pairs from 1 to 6.

BR EA KT HR OV GH
1 2 3 4 5 6

Clearly ,the code contains there pairs arranged in the order 2 ,5 ,4 . 1 ,6 ,3

Dividing the letters of the word DISTRIBUTION in pairs we have :

DI ST RI BU TI ON

1 2 3 4 5 6

Arranging there in the order 2 ,5 ,4 ,1 ,6 ,3.

we get the requires code that is STTIBUDIONRI Hence the answer is c

Ques-7: In a certain code language ,BEAT is written as a certain code language , BEAT is written as YVZG,then what will be code of MILD?

a) B,E,A,T, are respectively the 2nd ,5th, 1st ,20th letter from the begining of the English alphabet. Similarly M, I, L, D are respectively the

13th,9th,12th, 4th letters from the begining of the English alphabet ,and the 13th,9th,12th, 4th letters from the begining of the English alphabet are NROW, hence the answer is d

Ques-8:In a certain system of coding ,the word STATEMENT is written as

TNEMETATS.In the same system of coding .what should be the code for the word POLITICAL

a) LACITILOP b) LCATILTOP c)POILITCAL d)none of these
Sol: Clearly the letters of the given word are written in a reverse order to obtain the code. Reversing the order of letters in POLITICAL, we gwt LACITILOP, which is required code ,hence the answer is a

CASE -II: To find the word by analysing the given code(decoding) .

Ex:On a certain code ,the word ROAD is written as WTFI. Following

the same rule of coding ,what should be the word for the code GJFY?

a)REAP b) TAKE c) BEAT D) LATE

sol: Each letter of the word is five steps behind the corresponding letter of

the code we have

W T F I Ans: R O A D

G J F Y Ans :B E A T

So BEAT is coded as GJFY. Hence the answer is c

Ex:If NARGRUED is the code for GRANDEUR , which word is coded as

SERPEVRE?

Sol:Clearly ,the code has been obtained by writting the first four and the last

four letters of SERPEVRE

SERP/EVRE PRES/ERVE Hence answer is e

Q. if in a certain language , ITNIETAM is the code for INTIMATE, which word has the code TREVNIETARBI?

a. INVRETIBRATE b. INVERTIBARTE c. INVERTIBRETA d. INVERTIBRATE e. INVERITBARTE

Soln. our ans (d) . The letters in the first half and the latter half of the code are separately reversed to obtain the word.

Q. If QOSCFLBJO is the code for PORCELAIN , which word is coded as BKMOUSPP?

a).ALTOLROPY b.ALLOTROPY c.ALOTROLPY d. ATLOROPLY e. None of these

Soln. In the code , we have alternately one letter one step ahead of and the other the same as the corresponding letter in the word.

Q.If in a certain language , MACHINE is coded as LBBIHOD, which word would be coded as SLTMFNB?

a. RKSLEMA b.TKULGMC c.RMSNEOA d.TMUNGMC

Soln. In the code , we have alternately one letter one step behind and the other one step ahead of the corresponding letter in the word..

Q.Study the following information carefully and answer the questions given below.

The consonants of English alphabet have been coded by using digits 1 to 8 and the vowels have been coded by using different symbols.

Letters	G	B	K	H	Z	M	F
	R	V	C	S	D	Q	X
	J	N	T	L	W	Y	P
Digit	5	4	1	3	2	8	7

If any vowel is not in the beginning or last , it is coded as 6. If any vowel is at the beginning or in the last , it is coded as 9. However , if the same vowel is placed at both beginning and in the last , it is coded as $ at both the places . Now, choose the correct coded forms of each of the following letter groups.

Q1. AFDQENI

a. 6728949 b.72864 c.9728649 d.9728949 e. None of these

Q2.ENIANGE

a.6499456 b.466453 c.$4$$45$ d.9466456 e. None of these

Q3. PKDEJHI

a.7126539 b.712653$ c.7129539 d.712$53$ e. none of these

Q4. OPTIONAL

a.67199493 b.97166463 c.$7199493 e. none of these

Q5. EGTARLQE

a.65195386 b.$51$538$ c.95165389 d.519538 e. none of these

Soln. 1-(c), 2 (b), 3(a), 4(b), 5(e)

Ex. In each of the questions below, a group of numerals is given, followed by four groups of symbols/letter combination labeled (a), (b), (c), (d). Numerals are to be coded as per the codes and conditions given below. You have to find out which of the combination (a), (b), (c), (d) is correct and indicate your answer accordingly. If none of the four combination represents the correct code, mark (e) as your answer.

Numerals	3	5	7	4	2	6	8	1	0	9
Letter/ Symbol code	*	B	E	A	@	F	K	%	R	M

Following condition apply:

1. If the first digit as well as the last digit is odd, both are to be coded as X.
2. If the first digit as well as the last digit is even, both are to be coded as $.
3. If the last digit is 0, it is to be coded as #.

1. 546839
   a. XAFK*M b. BAFK*M c. XAFK*X d.BAFK*X e. None of the these
2. 713540
   a.E%*BA# b. X%*BA# c. X%*BAR d.E%*BAR e. None of the these
3. 765082
   a.XFBRK@ b. EFB#K@ c. EFBR#K d.EFBRK@ e. None of the these
4. 487692
   a.AKEFM@ b. $KEFM@ c. AKEFM$ d. $KEFM$ e. None of the these
5. 364819
   a.XFAK@M b. *FAK%X c. *FAK%M d. *EAK%X e. None of the these

Sol. 1. Clearly, in the given number- group, both the first and last digits are odd no. So, each of them is to be coded as X. The remaining numerals are to be coded with their respective codes from the given table. So, the required code XAFK*X. hence, answer is (C).

2. The last digits in the given number group is 0, which shall thus be coded as #. Choosing the individual Codes for the remaining digits from the given table, we obtain the code for 713540 as E%*BA#. Hence, answer is (a)

4. Each digit of the given number group is to coded by individual letter/symbol code

So, required code is EFBRK@. Hence, the answer is (d)

5. the first and the last digits, both being odd numbers, each of the them is to be coded as X. hence answer is (c).

Type: Substitution

1.If sky is star, star is cloud, cloud is earth, earth is tree, and tree is book, than where do the birds fly ?

a. Cloud b. Sky c. Star d. data inadequate e. None of these

Sol. answer is (c). Birds fly in the sky and as given, sky is star . So birds fly in the star .

2. If orange is called butter, butter is called soap, soap is called ink, ink is called honey and honey is called orange , which of the following is used for washing clothes?

a. honey b. butter c. orange d. soap e. ink

Soln. answer is (e). Clearly , soap is used for washing the clothes. But , soap is called called ink. So, ink is used for washing the clothes.

3. If light is called morning , morning is called dark , dark is called night , night is called sunshine and sunshine is called dusk, when do we sleep?

a. night b. sunshine c. dusk d. dark

Soln. Answer is (b). We sleep in the night . But night is called sunshine . So we sleep in the sunshine.

4. I f blue means green , green means white , white means yellow , yellow means black, black means red and red means brown , then what is the color of milk?

a. black b. brown c. blue d. yellow e. green

Soln. Answer is (e). The colour of milk is white . But as given green means white . So the color of milk is green .

5.If in a language , finger is called toe, toe is called foot , foot is called thumb , thumb is called ankle , ankle is called palm and palm is called knee, then in that languaghe , what will an illiterate man put to mark his signatures?

a.toe b. knee c. Thumb d. ankle

Soln. Anwer is (d). Clearly, an illiterate man puts his thumb to mark his signatures . But as given , thumb is called ankle . So an illiterate man will put his ankle to mark his signatures.

Type- DECIPHERING MESSAGE WORD CODES

EX.1 In a certain language, sun shines brightly is written as ba lo sul, houses are grightly lit as kado ula ari ba and light comes from sun as dopi kup lo nro. What code words are written for sun and brightly?

a. ba, sul b. sul, lo c. lo, ba d.ba, lo

Soln . In the first and third statements , the common word is sun and the common code-word is lo . So , lo is the code for sun . In the first and second statements, the common word is brightly and the common code word is ba . So , ba is the code for brightly. Hence, the answer is (c).

Ex.2. If in a certain language, oka peru means fine cloth , meta lisa means clear water and dona lisa peru means fine clear weather , which word in that language means weather?

Soln . In the first and third statements , the common code word is peru and the common word is fine . S o , peru means fine . In the second and third statements, the common code word is lisa and the common word is clear. so lisa means clear. Thus , in the third statement, lisa means clear and peru means fine . So, dona means weather. Hence the answer is (d).

EX.3 Read the information given below to answer the questions that follow :

In a certain code language ,

i) pit na sa means you are welcome ;
ii) na ho pa la means they are very good ;
iii) ka da la means who is good ;
iv) od ho pit la means they welcome good people .

1. Which of the following means people in that code language ?
   a. od b. la c.ho d. pit e. data inadequate

2. Which of the following means very in that code language ?
   a. pa b.na c.da d. data inadequate e. none of these

3. Which of the following statements is / are redundant to answer the above two questions?
   a. none b. (i) and (ii) c.(ii) or (iv) d. (i) or (iv) e. none of these

Soln .

1. In statements (i) and (iv) , the common code word is pit and the code word is welcome , so , pit means welcome .

In statements (ii) and (iv) the common code words are ho and la and the common words are they and good . So , ho and la mean they and good . Thus , in (iv) , the remaining code word i.e. od means people .

Hence the answer is (a).

2. From 1, we know that ho and la are codes for they and good

Now , in statements (i) and (ii), the common code word is na and the common word is are . So , na means are. Thus , in (ii), the remaining code word i.e. pa means very .

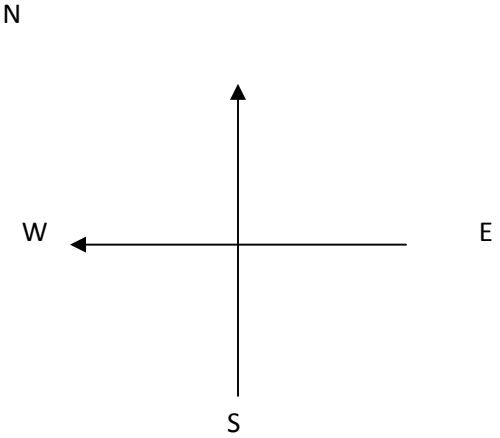
Hence the answer is (a).

3.Clearly , to answer the above two questions, we used statements (i) , (ii), and (iv) and didnot require (iii). So , (iii) is redundant . Hence , the answer is (e).

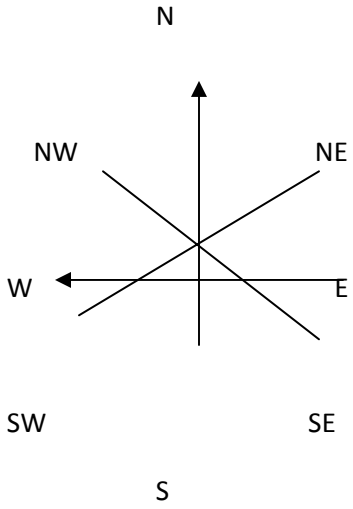
Direction test

Tips for Question based on Sense of Direction

1. Always try to use the direction planes as the reference for all the questions.



2. Now , as the statement of the question progresses, you should also proceed over this reference plane only.
3. always mark the starting point and end point different from the other points.
4. mark be attentive while taking right and/or left turns.
5. mark distance with a scale (if your rough diagram confuse you)
6. To solve this type of questions you should remember the following diagram.

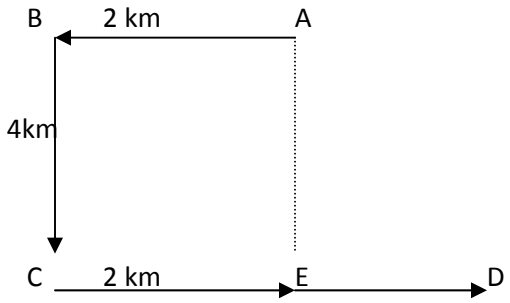


7. One should aware of the basic geometric rule, such as Pythagoras Theorem.
   Pythagoras Theorem $\Rightarrow AC^2 = Ab^2 + BC^2$

Ex. 1. Abinav walked 2 km west of his of house and then turn south covering 4 km. Finally he moved 3 km towards the east and then again 1 km west. How far is he from his initial position?

a. 2 km b. 4 km c. 9 km d. 10 km

Soln. Abhinav start from his house at A, Moves 2 Km west upto B, then 4 km to the south upto C 3 km east upto D and finally 1 km west upto E. thus his distance from the initial position A = AE = BC = 4 Km. hence ans is (b)



Ex. 2. A man walks 6 km to the east and then turns to the south and walks 5 km. Again he turns to the east and walks 6 km. Next, he northwards and walks 10 km. How far is he now from his starting point?

a. 5 km b.12 km c.13km d. 17

Soln. (c) the man starts from A and walks 6km east upto B, turn southwards and moves 5 km upto c. at C, he turns to the east and walks 6 km upto D. He then Turns northwards and walks 10 km upto E.

Now draw BO and AE.

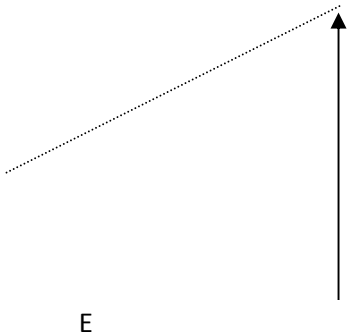
Clearly BO = CD = 6 km

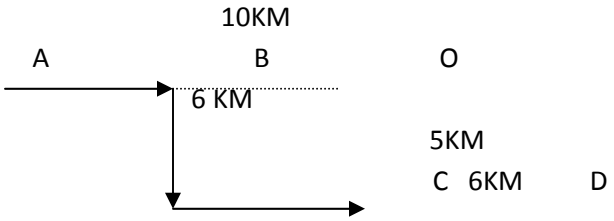
AO = (AB+BO) = (6+6) km = 12 km

OE = (DE= OD) + (DE-BC) = (10-5) km = 5 km

man's distance from the starting point A

$= AE = \sqrt{AO^2 + OE^2} = \sqrt{(12)^2 + (5)^2} = \sqrt{169} = 13KM$

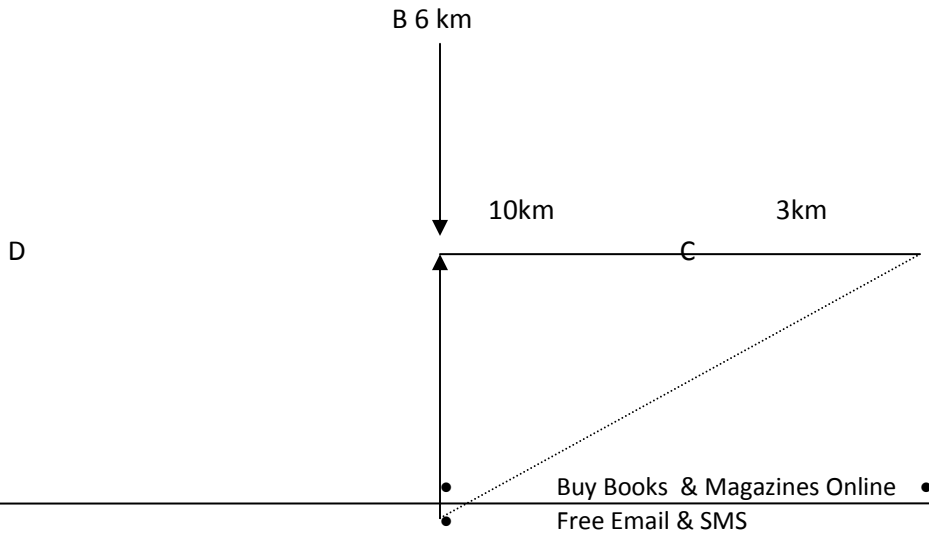




3. kunal walks 10km towards north from there he walks 6 km towards south then he walk 3 km towards east ,how far ans in which direction is he with reference to his starting point

a) 5 km west b) 7 km west c)7 km west d) 5 km north east
soln: d)

Clearly kunal moves from A 10 km northwards up to B ,then moves 6 km southwards up to C ,turn towards east and walk 3 km up to D



then, AC = (AB - BC) = (10 - 6) = 4 km

CD = 3 Km

kunal distance from starting point A =AD= $\sqrt{AC^2 + CD^2}$ = $\sqrt{4^2+3^2}$ =5 km .

4)

Amrita left for her office in her car .she drove 15 km towards north and then 10 km towards west ,she then turn to the south and covered 5 km further ,she turn to the east and move 8 km . Finally she turn right and drove 10 km , How far and in which direction is she from her starting point ?

a)2 km west b) 5 km east c) 3 km north d) 6 km south

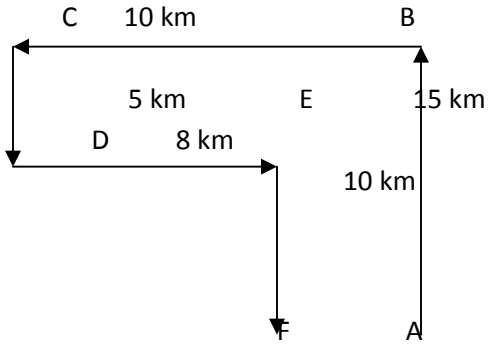
Ans: a)

solu: Amrita drove 15 km from A to B northwards and then 10 km from B to C towards west .

She then move 5 km southwards C to D.and 8 km eastward up to E, Finally she turn right and move 10 km up to F.

A and F lie in the same straight line and F lies to the west of A so Amrita's distance from the starting point A =AF=BC-DE=10-8=2km

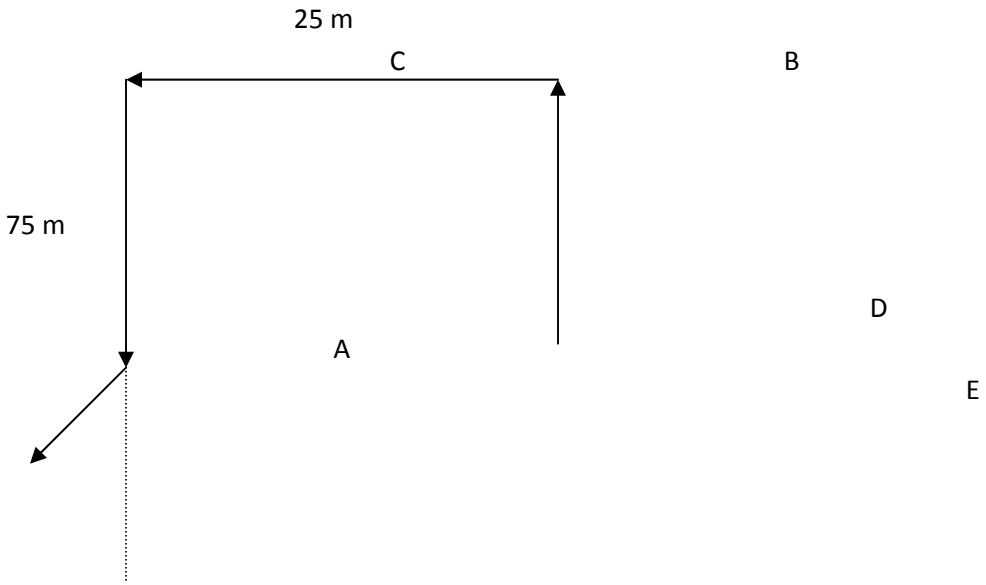
Hence the answer is (a).



Ques: 5 : Deepa moves a distance of 75 m towards the north She then turn to the left and walk for about 25 m .Turn left again and walk 80m Finally she turn to the right an angle of 45 degree . In which direction she is moving finally?

a) Northeast b) Northwest c) south d) Southwest
Ans:d

sol: Deepa started from A moves 75 m up to B turn left and walk 25 m up to C ,she then turn left again and move 80m up to D.Turning to the right at an angle of 45 degree she was finally moving in the direction of DE.that is southwest .



PUZZLE TEST

i) Five friends , P, Q, R, S AND T travelled to five different cities of Chennai, Kolkata, Delhi, Banglore and Hyderabad by different modes of transport of Bus, Train , Aeroplane , Car and Boat from Mumbai.

ii) The person who travelled to Delhi did not travel by boat.

iii) R went to Bangalore by car and Q went to Kolkata by aeroplane

iv) S travelled by boat whereas T travelled by train .

v) Mumbai is not connected by bus to Delhi and Chennai.

1. Which of the following combinations of person and mode is not correct?

a. P- Bus b. Q-Aero plane c.R- Car d. S- Boat e. T- Aero plane.

2. Which of the following combinations is true for S?

a. Delhi-Bus b. Chennai-Bus c.Chennai- Boat

d. Data inadequate e. None of these

3. Which of the following combinations of place and mode is not correct?

a. Delhi-Bus b.Kolkata- Aero plane c.Bangalore- Car

d.Chennai-boat e. hyderabad- bus

4. The person traveling to delhi went by which of the following modes?

a. bus b. train c. aero plane d. car e. boat

5. Who among the following traveled to delhi

a. R b. S c. T d. data inadequate e. none of these.

Soln. the given information can be analysed as follows:

a) mode of transport : RTravels by car, Q by aeroplane , S by boat and T by train . Now , only P remains . S o, P travels by Bus.

b) place of travel: R goes to bangalore , Q to kolkata. N ow , bus transport is not available for delhi or chennai. so , p who travels by bus goes to hyderabad. S travels by boat and hence by (ii) , did not go to delhi. So, S goes to chennai. Now, only T remains. So, T goes to delhi

Person	P	Q	R	S	T
Place	Hyderabad	Kolkata	Bangalore	Chennai	Delhi
Mode	Bus	Aero plane	Car	Boat	Train

1. clearly , the incorrect combination is T-aeroplane . So , the answer is (e)
2. clearly, the correct combination for S is chennai- boat. So, the answer is (c).
3. clearly , the incorrect combination is delhi-bus. So the answer is (a).
4. clearly, T travel to delhi by train . So the answer is (b).
5. clearly , T travel to delhi. So , the answer is (c).

Ex.2-

i) B and E are good in dramatics and computer science
ii) A and B are good in computer science and physics.
iii) A, D and C are good in physics and mathematics .
iv) C and A are good in physics and mathematics .
v) D and E are good in history and dramatics.

1. Who is good in physics , history and dramatics ?
a. A b. B c. D d. E

2. Who is good in physics, history and mathematics but not in computer science ?
a. A b. B c. C d. D

3. Who is good in computer science , history and dramatics?
a. A b. B c. C d. E

4. Who is good in history , physics , and computer science and mathematics?
a. A b. B c. C d. D

5. Who is good in physics , dramatics and computer science ?
a. A b. B c. D d. E

Soln. The given information can be analysed as under :

	dramatics	com. sc.	Phy	His	Math
A	X	√	√	√	√
B	√	√	√	X	X
C	X	X	√	√	√
D	√	X	√	√	X
E	√	√	X	√	X

1. D is good in physics , history and dramatics . so the answer is (c).
2. Both A and C are good in physics , History and mathematics . But A is good in computer science , while C is not . So , the answer is (c).
3. E is good in computer science , history and dramatics. Hence , the answer is (d).
4. A is good in history , physics , computer science and mathematics . Hence , the answer is (a).
5. B is good in physics, dramatics and computer science. Hence , the answer is (b).

Ex.-3

Study the following information carefully to answer the given question .

Madan and Rohit are in same team of hockey . Parth defeated Rohit in badminton but lost to sachin in tennis . nitin teams with sagar in football . and with sachin in hockey . rohit defeated sachin in chess. Those who play cricket donot play badminton , volleyball or tennis . madan and parth are in opposite team of basketball. nitin represent his state in cricket while sagar does so at the district level. Boys who play chess donot play football , basketball or volleyball. Madan and parth are together in volleyball team . Boys who play football also play hockey.

1. Name the boy who donot play football ?
   a. Sachin , Nitin b. Rohit , Sagar c. Rohit , Sachin d. Rohit , Nitin

2. Who play both hockey and tennis?
   a. Sachin b. Rohit c. Nitin d. Parth

3. Which is the most popular game with this group?
   a. cricket b. hockey c. football d. badminton

4. Who play the largest number of games ?
   a. Sagar b. Rohit c. Parth d. Nitin

5. Which boy play both badminton and hockey?
   a. Sachin b. Rohit c. Nitin d. Parth

Soln.

	Madan	Rohit	Parth	Sachin	Nitin	Sagar
Hockey	√	√		√	√	√
Badminton		√	√		X	X
Tennis			√	√	X	X
Chess		√		√		
Football		X		X	√	√
Basketball	√	X	√	X		
Volleyball	√	X	√	X	X	X
Cricket					√	√

1. (c) Rohit and Sachin donot play football
2. (a) Sachin play both hockey and tennis .
3. (b) Since hockey is played by the maximum nos. of student in the group so, hockey is the most popular game.
4. (c) Parth , play the largest nos. of game i.e. four.
5. (b) Rohit play both badminton and hockey

EX.

Study the following information carefully to answer the given question

1. A, B, C, D, E ,F and G are sitting around a circle and are facing the centre.
2. G is second to the left of C, who is to the immediate left of F.
3. A is third to the left of E.
4. B is between D and E.

i)which of the following is false ?

a. A is the fourth to the right of E. b. G is to the immediate right of D . c. F is the third to the right of D . d. B is the immediate left of D . e. None of these

ii) Which of the following is true?

a. C is fourth to left of B . b. A is to the immediate right of G. c. D is second to the left of E. d. B is second to the right of G.

e. None of these

iii) Which of the following pair has the first person sitting to the immediate left of the second person?

a. BE b. CA c . GD d. DG e. None of these

iv) Which of the following is the positions of F?

a. Fourth to the right of D. b. To the immediate left of C. c. Between A and C. d. To the immediate right of A e. None of these.

Solutions.

We first of all marki the seven balank polsitions around a circle . Now , G is second to the left of C and C is to the immediate left of F . We mark their positons as shown . also , B is between D and E. tHUS , D , B, E sit together and occupy the three consecutive blank positions . Now , only one position remains blank betwen G and C, and this must be occupied by A. now , D, B, E may sit in any of the postions (D,B,E) or (E,B,D). But A is third to the left of E only when they sit in the order (D, B, E). Thus we mark their postions as shown.

1. Clearly , F is fourth to the right of D . So , (c) is false . hence , the answer is (c)
2. C is third to the left of B. So, (a) is false
   A is to the immediate right of G. So , (b) is true.

   D is second to the right of E. So, (c) is false .

   B is second to the left of G. So, (d) is false .

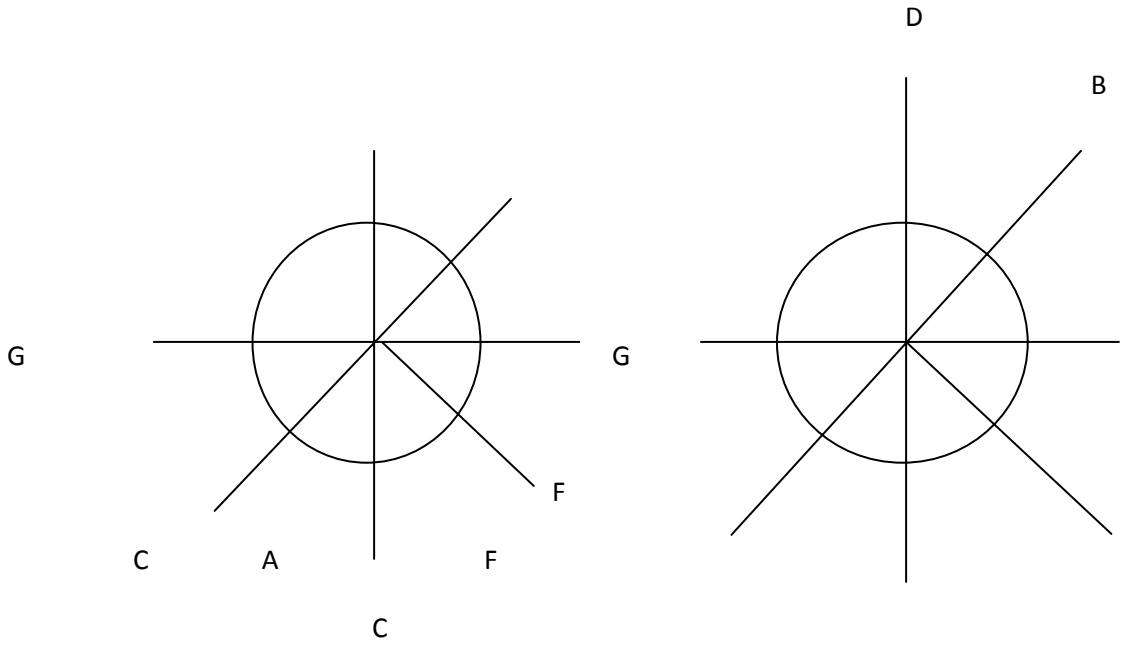
   Hence , the answer is (b)

3. Clearly , only in the pair DG , the first person D sits to the immediate left to the second person G . Hence the answer is (d).
4. C sits between A and F ; F sits between E and C ;E sits between B and F: D sits between G and B. So, none of the given groups satisfies the given condition.
5. Clearly, F's postion is . fourth to the right of D.
   . to the immediate right of C.

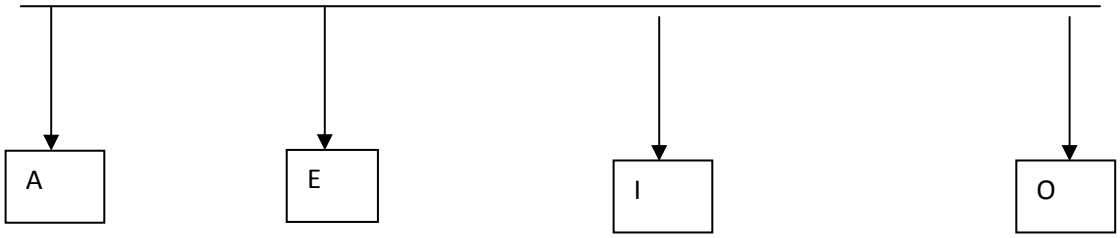
   . between C and E

.Second to the right of A.

Hence, the answer is (a).



SYLLOLOGISM



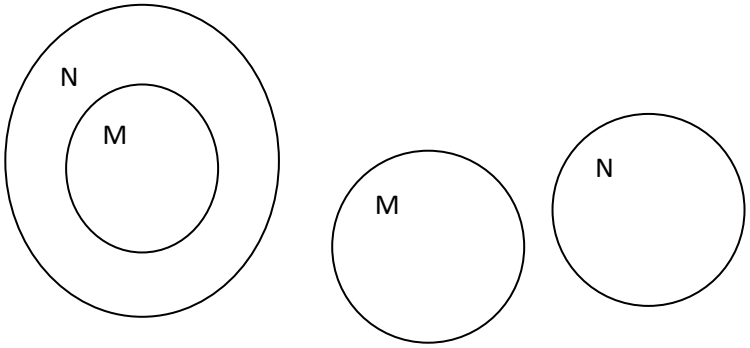
ALL NO SOME SOME NOT

These are basically four types used in syllologism. They are shown above in the chart

A type: Starts with ALL words

eg: All M are N

All bats are rats

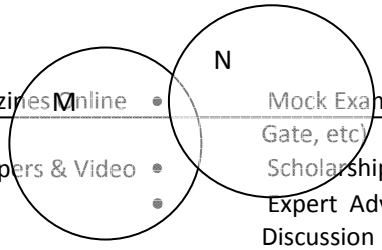


E type: Starts with word NO

eg: No M are N

No bats are rats

I type: Starts with word some



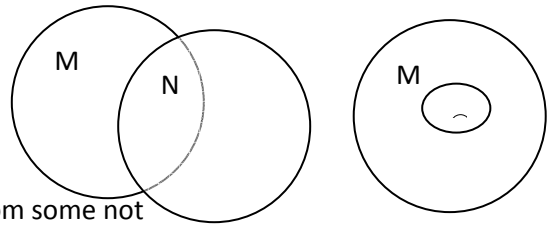
eg: Some M are N

Some bats are rats

o type: Starts with word some not

eg: Some M are not N

Some bats are not rats



Note:O* also starts from some not

Implications: 1)E ⟶ E

2) I ⟶ I

eg: E ⟶ E

No bats are rats (subject :bats , predicate:rats)

Here the starts with word NO .So it is of E type .Herer the subject is bats and the predicate is rats .Now in implications,the predicate can become subject and vise- versa like

No rats are bats

2) I ⟶ I

Some bats are rats can be written as some rats are bats

Conversions A ⟶ I O type cannot be converted

E ⟶ O

On conversion ,A type can be converted to I type,and E type can be converted to O type .each is explained below

1) A ⟶ I

All bats are rats

Some bats are rats

2)E ⟶ O

No bats are rats

Some bats are not rats

COMBINATION: only six types combinations possible . Other combination has no conclusion

1)A+A=A

2)A+E=E

3)A+I=no conclusion

4)E+A=O*

5)E+I =O*

6)I +E=O

7)I +A=I

explanations :1)A+A=A

All M are N (A type)

All N are P (A type)

We can combine this two types only if predicate of first sentence :N and subject of second sentence :N are same .in other words the same words must come diagonally. conclusion is .

All M are P

2) A+E=E

All M are N(A type)

No N are P(E type)

conclusion :No M are P

3) A+I = no conclusion

4) I +I = no conclusion

5)I +E=O

Some M are N (I type)

No N are P (E type)

conclusion : Some M are not P (O type)

6) I +A = I

Some M are N (I type)

All N are P (A type)

conclusion :Some M are P (I type)

7) E +A =O*

No M are N (E type)

All N are P (A type)

conclusion: Some P are not M (O* type)

Note: In O* we use some not but the subject is the predicate of 2nd sentence

8)E +I =O*

No M are N (E type)

Some N are P(I type)

conclusion: Some P are not M (O* type)

Rest combination are not possible E + E = No conclusion

Complementary pair: If the options given in conclusion part is not our conclusion then we check for complementary. There are mainly three pairs coming under complementary pair. They are

1)A-O

2)I-O

3)I-E

But the condition is subject and predicate of both the sentences ahould be same.

1)A-O pair: All M are N (A type)

Some M are not N (O type)

2)I-O pair : Some M are N (I type)

Some m are not N (O type)

3)I-E pair: Some M are N (I type)

No M are N (E type)

BLOOD RELATIONS

Mother or father's son ----------Brother

Mother's of father's daughter ----------Sister

Mother or father's brother ----------Uncle

Mothers or fathers sister ----------Aunt

Mothers or fathers father----------Grandfather

Mothers or fathers mother----------Grandmother

Son's wife----------Daughter-in-law

Daughters husband----------Son -in -law

Husbands or wifes sister----------Sister-in-law

Husbands or wifes brother----------Brother-in-law

Brother's son----------Nephew

Brother's daughter ----------Niece

Uncle or aunts son or daughter----------Cousin

Sisters husband----------Brother-in-law

Brothers wife----------Sister-in-law

Grandsons or geand daughter ----------Great grand daughter

Ex-- A man pointing to a photographer says "the lady in the photograph is my nephew's maternal grandmother" .How is the lady in the photograph related to the man's sister who has no other sister ?

a)Cousin b) Sister-in -law c)Mother d)Mother-in-law

Solution: Clearly the lady is the grandmother of man's sister's son that is the mother of the mother of man's sister's son that is the mother of man's sister.Hence the answer is c

Ex: A woman going with a boy is asked by another woman about the relationship between them .The womwn replied ,"My maternal uncle and the uncle of his maternal uncle is the same". How is the lady related with that boy?

a)grandmother and Grandson b)Mother and son

c)Aunt and nephew d)None of these

Solution:Clearly the brother of woman's mother is the same as the brother of the father of boys maternal uncle .So, the womans mother's brother is the boy's maternal uncle's father ,Thus the woman's mother's brother's son is boy's maternal uncle that is ,woman's mother's brother's daughter is boy's mother .So the woman and boy's mother are cousins. Thus the woman is boys aunt .Hence the answer is c

Ex: Pointing out to a lady ,Rajan said ,"she is the daughter of the woman who is the mother of the husband of my mother ."Who is the lady to Rajan ?

a)Aunt b)Grand daughter c) Daughter d)Sister e) Sister-in-law

Sol:The relation may be analysed as follows

Mother's husband --Father ;Father's mother --Grandmother ; Grandmother's daughter -- Father's sister,Father's sister --Aunt

Hence, the answer is a

Ex: 1. Pointing towards a person a man said to a woman "His mother is the only daughter of your

father . How is the woman related to that person?

a)Daughter b) Sister c)Mother d) wife

sol: The only daughter of woman's father is she herself ,so the person is woman's son that is the woman is the person's mother .Hence the answer is c

Ex: 2) Pointing to a lady in a photograph ,Shaloo said , "Her sons father is the son-in-law of my mother ," How is shaloo related to the lady ?

a)Aunt b) Sister c)Mother d) Cousin e) nono of these

sol:Lady's son's father is lady's husband .So the lady's husband is the son -in law of shaloo's mother that is the lady is the daughter of shaloo's mother .Thus Shaloo is the lady's sister . Hence the answer is b

Ex- 3: Anil introduces Rohit as the son of the only brother of his father's wife. How is Rohit related to Anil

a)Cousin b) Son c) Uncle d) Son-in-law e) Brother

sol: The relation may be analysed as follow

Father's wife --Mother ,Mother's brother --Uncle ,Uncle's son --Cousin

So ,Rohit is Anils Cousin .Hence answer is a

Ex-4:Pointing towards a person in the photograph Anjali said "He is the only son of the father of my sister's brother " . How is that person related to Anjali ?

a) Mother b) Father c) Maternal uncle d)Cousin e)none of these

sol:Relation may be analysed as follow

Sisters brother -- Brother ,Brother's father -Father , Father's son -Brother

So the person in the photograph is Anjali's brother .Hence the answer is e

Ex-5: Rita told Mani,"The girl i met yesterday at the beach was the youngest daughter of the brother-in-law of my freind's mother " How is the girl related to Rita's freind ?

a) Cousin b) Daughter c) Nice d) Freind e)Aunt

sol: The relation may be analysed as follow

Daughter of brother -in-law --Niece : Mother niece --Cousin : so the girl is the cousin of Rita's freind . Hence the answer is a

BLOOD RELATIONS

Direction : Read the following information and answer the question given below it .

A is the father of a C .But C is not his son .

E is the daughter of C .F is the spouse of A.

B is the brother of C. D is the son of B.

G is the spouse of B. H is the father of G.

Q.:- Who is the grandmother of D?

a) A b) C c) F d) H

Solutions:- (answer is c.) D is the son of B, B is the brother of C and A is the father of C. Thus means that B is the father of D and A is the father of B . So , A is the grandfather of D. Since F is the spouse of A, So F is the grandmother of D.

Q.) Who is the son of F?

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

Solutions:- (Answer is a.) As explained above , B is the son of A and F is the spouse of A. So , B is the son of F.

EX i) In a family of six persons A, B, C, D, E, and F, There are two married couples .

ii). D is grandmother of A and mother of F.

iii). C is wife of B and mother of F.

iv) F is the granddaughter of E.

Q:- What is C to A?

a) Daughter b) grandmother c) mother d) cannot be determined e) none of these

Solutions:- (answer is c.) Cis the wife of B and D is the mother of B. Also , D is grandmother of A. So , C is the mother of A.

Q.:- How many male members are there in the family?

a) two b) three c) four d) cannot be determined e) none of these

Solutions:- Clearly the sex of A cannot be determined so answer is (d).

Q:- Which of the following is true?

a) A is brother of F.
b) A is the sister of F.
c) D has two grandsons .
d) B has two daughters
e) None of these.

Solutions:-The sex of A is not known , so, neither (a) nor (b) is definitely true. Clearly , D is the grandmother of A and F. So, the answer is (e).

Q.) Who among the following is one of the couples .

a) CD b) DE c) EB d) Cannot be determined e) None of these

Solutions:- C is the wife of B, so , one couple is BC. Now , D is grandmother of A. B is the son of D and his wife C is the mother of F . So , D is also grandmother of F. But F is the granddaughter of E . So , E is the grandfather of F and the husband of D . Thus , DE is another couple. Therefore , our answer is (b).

Ex. Read the following information and answer the questions given below :

A is the son of B. C, B's sister has a son D and a daughter E. F is the maternal uncle of D.

Q. How is A related to D?

a) cousin b) nephew c) uncle d)brother

Q. How is E related to F?

a) sister b) Daughter c) Niece d) Wife

Q. How many nephews does F have ?

a) nil b) one c) two d) three

Solutions:- First answer is (a) . A is the son of B and D is the son of the sister of B. So , A is the cousin of D.

Second answer is (c). E is the daughter of C and D is the son of C. So, F, who is the maternal uncle of D, is also the maternal uncle of E. Thus , E is the niece of F.

Third answer is (c). Clearly , F is the maternal uncle of D means F is the brother of D's mother i.e. F is the brother of C. C is the sister of B. So , F is the brother of B who is A's mother . Thus F is the maternal uncle of A . So , A and D are the nephews of F i.e.F has two nephews.

Number, Ranking and Time Sequence

type1- Number test :- In this type of questions, generally a set , group or series of numerals is given and the candidate is asked to trace out numerals following certain given conditions or lying at specific mentioned positions after shuffling according to a certain given pattern.

1. How many 5s are there in the following number sequence, which are immediately preceded by 7 and immediately followed by 6?
   7 5 5 9 4 5 7 6 4 5 9 8 7 5 6 7 6 4 3 2 5 6 7 8

   a. One b. two c. three d. four

2. How many 6's are there in the following number series , each of which is immediately preceded by 1 or 5 and immediately followed by 3 or 9?
   2 6 3 7 5 6 4 2 9 6 1 3 4 1 6 3 9 1 5 6 9 2 3 1 6 5 4 3 2 1 9 6 7 1 6 3

   a. none b. one c.two d.three e.none of these

3. How many 7's immediately preceded by 6 but not immediately followed by 4 are there in the following series ?
   7 4 2 7 6 4 3 6 7 5 3 5 7 8 4 3 7 6 7 2 4 0 6 7 4 3

   a.one b. two c.four d.six

4. In the series given below , count the number of 9's , each of which is not immediately preceded by 5 but is immediately followed by either 2 or 3. How many such 9's are there ?
   1 9 3 2 1 7 4 2 6 9 7 4 6 1 3 2 8 7 4 1 3 8 3 2 5 6 7 4 3 9 5 8 2 0 1 8 7 4 6 3

   a. one b. three c. five d. six

5. How many 4's are there preceded by 7 but not followed by 3?
   5 9 3 2 1 7 4 2 6 9 7 4 6 1 3 2 8 7 4 1 3 8 3 2 5 6 7 4 3 9 5 8 2 0 1 8 7 4 6 3

   a. three b. four c. five d.six.

soln. 1(a) , 2(d) , 3 (b) , 4 (b) , 5 (b)

TYPE- RANKING TEST

EX.1 Rohan ranks 7th from the top and 26th from the bottom in the class. How many students are there in the class?

a.31 b.32 c.33 b.34

Soln. Clearly , the whole class consist of

i) 6 students who have ranked higher than Rohan

ii) Rohan, and

iii) 25 students who have ranks lower than Rohan i.e. 6+1+25 = 32 students

EX.2 Manik is 14 th from the right end in the row of 40 students . What is his position from the left end ?

i) 24 ii) 25 iii)26 iv)27

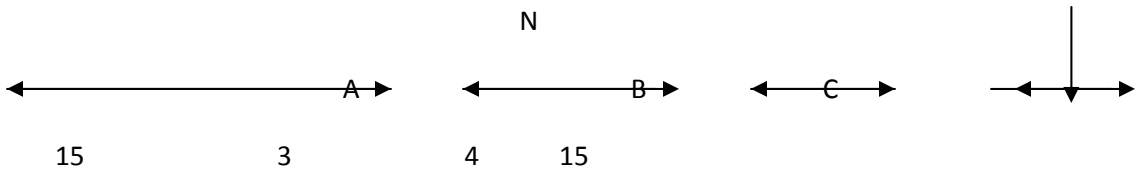
Soln. Clearly, The number of students towards the left of the Manik = 40-14= 26

so Manik is coming 27th from the left end . Hence the answer is (d)

EX.3 In a row of boys facing the north , A is 16th from the left end and C is 16 th from the right end . B , who is 4th to the right of A , is 5th to the left of C, in a row. How many boys are there in a row?

a. 39 b. 40 c.41 d. 42 e. 43

Soln. Clearly , according to given conditions , there are 15 boys to the left of A , as well as to the right of C . Also , B lies between A and C such that there are three boys between A and B, and 4 boys between B and C.



so, number of boys in a row = (15+1+3+1+4+1+15)= 40. Hence our answer is (b).

Data sufficiency

Direction: Each of the questions below consist of a question and statements numbered I and II given below it. You have to decide whether the data provided in the statements are sufficient to answer the question.

a. If the data in statement I alone are sufficient to answer the question, while the data in

Statement II alone are not sufficient to answer the question

b. If the data in statement II alone are sufficient to answer the question, while the data in statement I alone are not sufficient to answer the question

c. If the data either in statement I alone or in statement II alone are sufficient to answer the question.

d. If the data both in statement I and statement II together are not sufficient to answer the question.

e. If the data both in statement I and statement II together are necessary to answer the question.

1. What is the colour of the fresh grass?
   i) Blue is called green , red is called orange, orange is called yellow.
   ii) Yellow is called white , white is called black, green is called brown and brown is called purple .
2. What does nip stands for in a code language ?
   i) In the code language ,that is very beautiful is written as , " nip sto sre tip "
   ii) In the same code language , " my house is beautiful is written as " nip sto sre tip .
3. In a certain code , nop al ed means they like flower . Which code word means flowers?
   i) Id nim nop means they are innocent .
   ii) gob ots al means we like roses .
4. What is the code for sky in the code language ?
   i) In the code language , sky is clear is written as de ga jo

   ii) In the same code language , make is clear is written as de ra fa.
5. How J related to p?
   i) M is the brother of P and T is the sister of P.
   ii) P's mother is married to J's husband, who has one son and two daughter .

6 .How is T related to K?

I) R's sister J has married T's brother L, who is the only son of his parent.

ii) K is the only daughter of L and J.

7.B is the brother of A . How is A related to B?

iii) A is the sister of C.
iv) E is the husband of A .

8. How is M related to N ?

I) P, who has only two kids , M and N is the mother -in-law of Q , who is sister -in-law of N.
II) R, the sister-in-law of M, is the daughter -in -law of S, who has only two kids , M and N.

9. P, Q, R,and S are sitting around a circle facing at the center. Who is to the immediate right of Q?

i) R is between P and S
ii) S is to the immediate right of R.

10. What is Sumit's position from the right in a row of children?

i) There are ten children between sumit and ranjan
ii) Ranjan is the twentieth from the left end of the row of the children

11. What is the Nitin's rank from the top in a class of 40 students?

i) There are ten student between Nitin and Deepak
ii) Deepak is the twentieth from the top

12. On which date of the month was Anjali born in february , 2004 ?

i) Anjali was born on an even date of the month.
ii) Anjali's birthdate was a prime number.

13. Which train did Aman catch to go to office?

i) Aman missed his usual train of 10:25 a.m..A train comes in every five minutes .
ii) Aman did not catch the train 10:40 a.m, train or any train after that time

Soln .

1. (b). The colour of fresh grass is green and as given in II , green is called brown . So the color of fresh grass is brown
2. (d). In I and II , the common codes are nip and sre and the common words are is and beautiful . So nip and sre are the codes for is and beautiful . But the exact word for nip; cannot be found out
3. (e). In the given statement, and I , the common word is they and the common code word is nop . So , nop is the code for They . In the given statement and II , the common word is like and the common code word is al . So , al is the code for like . Thus , in the given statement, ed is the code for flowers.
4. (d). The only word common to I and II is clear and as such , only the code for clear can be ascertained from the given information .
5. (b). From II, we know that P's mother is married to J's husband , which means that J is P's mother .
6. (e). From I, we know that L is T's brother and J's husband . Since L is the only son of his parents , T is L's sister .
   From II, we know that K is L's daughter .

   Thus , from I and II, we conclude that T is the sister of K's father i.e.T is K's aunt.

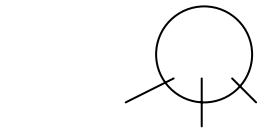
7.(c) . B is A's brother means A is either brother or sister of

B. Now , each one of I and II individually indicates

that A is female , which means that A is B's sister .

8.(a). From I, we conclude that P is the mother of M and N ,
while Q is the daughter -in-law of P and sister -in-law of N. Thus , Q is M's wife and hence , M is N's brother . From II, we conclude that M and N are the children of S. Also, R is the daughter -in-las of S . Hence , M is either brother or sister of N.

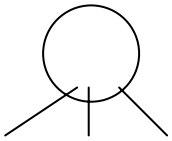
9. From I, we have



P

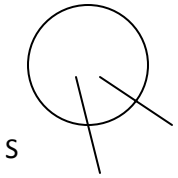
R S

OR



S R P

From II, We have

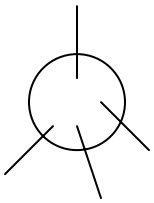


S

R S

Q

Combining the above two, we have



P R S

Clearly, P is to the immediate right of Q.

10. Answer is (d).. Clearly, neither the number of children in the row is given nor the position of Sumit relative to Ranjan is mentioned in any one of I or II.

11. Answer is (d). Since there are ten students between Nitin and Deepak , so Nitin may be eleven ranks above or below Deepak . Thus Nitin may be 9th, or 31st from the top.

12. Answer is (e). From I and II , We conclude that Anjali was born in February, 2004 on a date which is an even prime number . Since the only even prime number is 2 , so Anjali was born on 2nd February, 2004.

13. Answer is (d). From I and II , we conclude that Aman went to office by either 10:30 a.m. or 10:35 a.m train.

Coded inequality

Few points to remember

A)

Similar points between two variable and common variable in middle .Conclusion is similar signs .

1)A>=B, B>= C

conclusion: A>=C

2)A<=B,B<=C

conclusion: A<=C

3) A>B, B>C

conclusion: A>C

4)A<B, B<C

conclusion: A<C

5)A=B, B=C

conclusion: A=C

B) If common variable is in the middle and between two variable signs like >=and > and <=and < prevails then conclusion is >and <

6) A>=B , B>C

conclusion : A> C

7) A<=B, B<C

conclusion: A< C

C) If the conclusion we get >= or <= signs and in option we have two choices >and = signs or < and = between two variables then conclusion will be either choice follow

Ex- A>=B , B>= C

1) A>C, 2) A=C

A<=B, B<=C

1)A<C, 2) A=C

Our answer is either 1 or 2

D) We can't combine two variables with common variable in middle having sign >= and <=or > and < for example

1)A>=B, B<=C

no conclusion between A and C

2) A>B , B < C

no conclusion between A and C

E) At least if we don't get any conclusions yhen we check for complementary pair. So there are two complementary pair

1) >= and <
2) <=and >

Ex: 1)A>=B, B <=C

conclusion: a) A >= C

b) A <C

c) A <=C

d) A >C

Ans: Either a or b

Either c or d

E) If any new alphabet is compared in the conclusion part ,and if it is not used in the question part then it can't have a definite conclusion .It will have complementary pair

Ex- A >=B, B>=C

option 1) T > C

2)T<=C

3) T>= C
4) T<C
conclusion : either 1 or 2 and either 3 or 4

P @Q means P is either greater than or equal to Q

P+ Q means P is either smaller than or equal to Q

P%Q means P is greater than Q

PX Q means P is smaller than Q

P$ Q means P is neither greater than nor smaller than Q

Now in each of the following questions assuming the given statement to be true ,find which of the two conditions I and II given below them is /are definately true ? Give answer.

a) If only conclusion I is true
b) If only conclusion II is true
c) If either I or II is true
d) If neither I or II is true
e) If both I and II is true

1) Statements : M @R , R%T , T$ K
Conclusion : I) KXM, II) TXM

2) Statements : H%J, B+J, B@F

Conclusion: I)F$J, II) J%F

3) Statements : D$M, M%W, W@R

Conclusion : I) RXD, II) W+D

4) Statements : A+N , NXV, V$J

Conclusion: I) J@N, II) A +V

5) Statements : KXT , T@B , B+M

Conclusion : I)M%T II) K+B

6) Statements : B@H, HXM , M$N

Conclusion : I) B@N, Ii) N%H

Answers: 1)- e 2)C 3)a 4)d) 5)d 6)b