TEST OF REASONING

CLASSIFICATION (ODDMAN OUT)

Classification means 'to assort the items of a given group on the basis of certain common qualities or characteristics they possess and to spot the stranger.' These types of questions are based on similar relationship that exists between the things, objects, words or letters. In this test, generally, you will be given a group of five items, out of which four are similar to one another in some way and the fifth is different. The candidate is required to choose the item which does not fit into the given group.

Types of Classification

(1) **Word classification:** In this type similar groups are found among the names, places, things, nouns, verbs, different sexes, races or any other matter out of which four things are similar and one is not.

(2) **Alphabet classification:** Here some groups of letters are formed according to a pattern and one of them is different.

(3) **Number classification:** Here out of a given group of numbers four will be similar one will be strange.

HINTS FOR CLASSIFICATION

★ Verbal classification aims to test your power of observation and ability to notice differences and similarities among various objects. So search for the relationship among the given items. Relationship may be based on meaning, interrelationship, consistency relationship etc.

★ Search for the similarities among alphabet groups. Particularly vowel-consonant relationship, capital-small letter relationship, repetition and frequency of letters skipping pattern in alphabet groups.

★ Remember that in classification you are not searching for a stranger but you are classifying different items into a group and one item which refuses to be a part of the group is the stranger.

★ If you straight away search for a stranger, you may land in trouble because every item in the given group will be a stranger in some way or another. So think of the possible group in which you can group different items and find the stranger.

Speed Developing Practice Test No. 1

1. (1) Ladder (2) Staircase (3) Bridge (4) Escalator (5) Lift
2. (1) Nephrology (2) Entomology (3) Astrology (4) Mycology (5) Pathology
3. (1) Swimming (2) Breathing (3) Walking (4) Dancing (5) Playing
4. (1) Arrow (2) Missile (3) Sword (4) Bullet (5) Spear
5. (1) Biscuit (2) Chocolate (3) Cake (4) Bread (5) Pastry
6. (1) Tortoise (2) Snail (3) Turtle (4) Spider (5) Oyster
7. (1) Virgo (2) Pisces (3) Libra (4) Sagittarius (5) Orion
8. (1) Japan (2) India (3) Sri Lanka (4) New Zealand (5) Malagasy
9. (1) Producer (2) Director (3) Investor (4) Financier (5) Entrepreneur
10. (1) Chariot (2) Car (3) Bus (4) Wagon (5) Sledge
11. (1) Crow (2) Pigeon (3) Parrot (4) Butterfly (5) Peacock
12. (1) Hepatitis (2) Tetanus (3) Cancer (4) Conjunctivitis (5) Measles
13. (1) Fox (2) Wolf (3) Jackal (4) Deer (5) Panther
14. (1) Nitrogen (2) Oxygen (3) Hydrogen (4) Phosphorus (2) Carbondioxide
15. (1) Man (2) Mother (3) Sister (4) Father (5) Brother
16. (1) EWZQ (2) OSLS (3) GFKD (4) VSPM (5) QBTV
17. (1) 26Z (2) 24X (3) 22V (4) 20S (5) 18R
18. (1) BTR (2) CTR (3) DTR (4) ETR (5) FTR

19. (1) NOOP (2) HIIJ (3) PQQR
(4) UVVX (5) XYYZ
20. (1) TYN (2) BFD (3) MQO
(4) LPN (5) QUS
21. (1) BCD (2) HIJ (3) MNP
(4) TUV (5) WXY
22. (1) MNO (2) CDE (3) GHI
(4) PQR (5) STU
23. (1) BEH (2) ILO (3) NQT
(4) GHK (5) RUX
24. (1) TAN (2) RAE (3) UCT
(4) AWS (5) YSX
25. (1) 135 (2) 286 (3) 371
(4) 591 (5) 719

Answers: Speed Developing Practice Test No. 1

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

Explanatory Answers: Speed Developing Practice Test No. 1

1. (3) All except bridge are used for up and down movement.
2. (3) All except Astrology are connected with biology.
3. (2) Breathing is the only natural action.
4. (3) All except sword strike the target at a distance.
5. (2) All except chocolate are baked items.
6. (4) All except spider have hard protective shells.
7. (5) All except orion are zodiac signs, while orion is a constellation.
8. (2) All except India are islands, while India is a peninsula.
9. (2) All except director spend money.
10. (5) All except sledge have wheels.
11. (4) All except butterfly are birds, whereas butterfly is an insect.
12. (2) All except tetanus are diseases caused by virus, while tetanus is caused by bacteria.
13. (4) All except deer are flesh eating animals.
14. (4) All others are gases.
15. (1) All other words define some relationship.
16. (2) No letter is repeated in any other group.
17. (4) In all other options, the number denotes the position of the letter in the English alphabet.
18. (4) No other group has a vowel.
19. (4) All other groups contain three consecutive letters with second letter repeated twice.
20. (1) In all other options there are three alternate letters.
21. (3) In all others the letters are consecutive.
22. (4) All except 4 are consecutive letters which end with a vowel.
23. (4) In all other groups there are 2 letters in the alphabet in between the 1st and the 2nd letter and the 2nd and the 3rd letter.
24. (5) In all others a meaningful word can be formed by the letters.
25. (2) In all others the numbers are odd numbers

Speed Developing Practice Test No. 2

1. (1) Painting (2) Art (3) Sculpture
(4) Drawing (5) Music
2. (1) Mountain (2) Plateau (3) Valley
(4) Peak (5) Hill
3. (1) Dynamics (2) Mechanics (3) Electronics
(4) Optics (5) Physics
4. (1) Consumer (2) Customer (3) Buyer
(4) Purchaser (5) Retailer
5. (1) Jasmine (2) Corriander (3) Lotus
(4) Lily (5) Rose
6. (1) Moth (2) Bee (3) Lizard
(4) Cockroach (5) Aphid
7. (1) Kiwi (2) Eagle (3) Emu
(4) Penguin (5) Ostrich
8. (1) Swimming (2) Diving (3) Driving
(4) Sailing (5) Fishing

9. (1) Pupil (2) Iris (3) Cornea
(4) Medulla (5) Retina
10. (1) Sahara (2) Thar (3) Gobi
(4) Sunderbans (5) Kalahari
11. (1) Skull (2) Pelvis (3) Fibula
(4) Appendix (5) Vertebra
12. (1) Cap (2) Turban (3) Helmet
(4) Veil (5) Hat
13. (1) Snore (2) Slumber (3) Yawn
(4) Doze (5) Dream
14. (1) Epicentre (2) Seismology (3) Focus
(4) Crater (5) Ritcher scale
15. (1) Curious (2) Humour (3) Wise
(4) Angry (5) Mighty
16. (1) Flat (2) Bunglow (3) House
(4) Temple (5) Palace
17. (1) Sweet (2) Cold (3) Sour
(4) Bitter (5) Salty
18. (1) Paper (2) Pencil (3) Eraser
(4) Ink (5) Sharpener
19. (1) Cotton (2) Rice (3) Wheat
(4) Gram (5) Barley.
20. (1) Cricket (2) Baseball (3) Football
(4) Billiards (5) Badminton
21. (1) 17 (2) 44 (3) 21
(4) 66 (5) 19
22. (1) DFI (2) MOQ (3) BDG
(4) RTW (5) IKN
23. (1) 341 (2) 679 (3) 385
(4) 495 (5) 561
24. (1) 250 (2) 150 (3) 125
(4) 116 (5) 105
25. (1) BdE (2) XpD (3) HQu
(4) MkV (5) PtZ

Answers: Speed Developing Practice Test No. 2

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

Explanatory Answers: Speed Developing Practice Test No. 2

1. (5) Except music all others can be seen where as music is to listen.
2. (3) All except valley are elevated features.
3. (5) All others are branches of physics.
4. (5) All other terms refer to someone who buys something.
5. (2) All except corriander are flowers.
6. (3) All except lizard are insects.
7. (2) All except eagle are flightless birds.
8. (3) All except driving are activities performed in water.
9. (4) All except medulla are parts of the eye, while medulla is a part of the brain.
10. (4) All except Sunderbans are deserts while Sunderbans is a delta.
11. (4) All except appendix are bones, while appendix is an organ.
12. (4) All except veil cover the head while veil covers the face.
13. (3) All except yawn are actions in sleep.
14. (4) All except crater are associated with earthquakes.
15. (5) All others are related to state of mind or sense.
16. (4) Except temple, all are places for living
17. (2) Except cold all others refer to taste.
18. (4) Except ink all others are solids.
19. (1) Except (1) all are edible.
20. (4) All except billiards are outdoor games.
21. (3) In all other numbers we find the sum of the two digits to be an even number.
22. (2) In all other groups the difference between the positions of the 2nd and the 3rd letters in the alphabet is 3.
23. (2) In all other numbers the last digit is the difference between the 1st and the 2nd digits.
24. (4) Except 116 all other numbers are divisible by 5.
25. (3) In all other groups the middle letter is small.

ANALOGY

Analogy means 'correspondence'. In the questions based on analogy, a particular relationship is given and another similar relationship has to be identified from the alternatives provided. Analogy tools are therefore meant to test one's ability to reason - how far you are able to compare and comprehend the relationship that exists between two objects, things or figures.

Verbal analogy measures the ability to understand the relationship between two given words or group of letters, presented in abbreviated form. See the following example.

Moon : Satellite : : Earth : Planet

This abbreviated form conveys the idea that moon is related to satellite in the same way as the earth is related to planet.

Look for the Kinds of Relationship

There are many possibilities in establishing a relationship. Here are some useful points on the basic knowledge required for the test.

Worker and Product

Eg: Carpenter : Furniture : : Mason : Wall
Carpenter makes Furniture and Mason builds a Wall.

1. Author	: Book	7.	Editor	:	Newspaper
2. Architect	: Design	8.	Farmer	:	Crop
3. Butcher	: Meat	9.	Judge	:	Justice
4. Chef	: Food	10.	Poet	:	Poem
5. Choreographer	: Ballet	11.	Teacher	:	Education
6. Cobbler	: Shoes	12.	Tailor	:	Clothes

Worker and Tool Relationship

Eg: Woodcutter : Axe : : Soldier : Gun
Axe is the tool used by a Woodcutter, likewise a Soldier uses a Gun to shoot.

1. Author	: Pen	9.	Doctor	:	Stethoscope
2. Astronomer	: Telescope	10.	Farmer	:	Plough
3. Barber	: Scissors	11.	Gardener	:	Harrow
4. Butcher	: Chopper	12.	Painter	:	Brush
5. Blacksmith	: Anvil	13.	Sculptor	:	Chisel
6. Bricklayer	: Trowel	14.	Surgeon	:	Scalpel
7. Carpenter	: Saw	15.	Tailor	:	Needle
8. Cobbler	: Awl				

Tool and Action

Eg: Pen : Write : : Knife : Cut
Pen is used for Writing and Knife is used for Cutting

1. Axe	: Grind	8.	Spade	:	Dig
2. Auger	: Bore	9.	Shovel	:	Scoop
3. Chisel	: Carve	10.	Spoon	:	Feed
4. Gun	: Shoot	11.	Spanner	:	Grip
5. Loudspeaker	: Amplify	12.	Steering	:	Drive
6. Microscope	: Magnify	13.	Sword	:	Slaughter
7. Oar	: Row				

Worker and Working Place

Eg: Farmer : Field : : Doctor : Hospital
A Farmer works on a Field while a Doctor works in a Hospital.

1. Artist	: Theatre	8.	Pilot	:	Cockpit
2. Actor	: Stage	9.	Sailor	:	Ship
3. Clerk	: Office	10.	Scientist	:	Laboratory
4. Driver	: Cabin	11.	Teacher	:	School
5. Engineer	: Site	12.	Umpire	:	Pitch
6. Lawyer	: Court	13.	Worker	:	Factory
7. Mechanic	: Garage	14.	Warrior	:	Battlefield

Product and Raw Material

Eg: Cloth : Fibre : : Petrol : Crude Oil
Cloth is made of Fibre and Petrol is extracted from Crude oil.

1. Book	: Paper	8.	Omlette	:	Egg
2. Butter	: Milk	9.	Paper	:	Pulp
3. Furniture	: Wood	10.	Road	:	Asphalt
4. Fabric	: Yarn	11.	Rubber	:	Latex
5. Jaggery	: Sugarcane	12.	Shoes	:	Leather
6. Metal	: Ore	13.	Sack	:	Jute
7. Oil	: Seed				

Quantity and Unit

Eg: Length : Metre : : Distance : Light Year
Metre is the unit of Length and Light year is the unit of Distance.

1. Angle	: Radians	7.	Power	:	Watt
2. Current	: Ampere	8.	Pressure	:	Pascal
3. Energy	: Joule	9.	Resistance	:	Ohm
4. Force	: Newton	10.	Time	:	Seconds
5. Mass	: Kilogram	11.	Volume	:	Litre
6. Potential	: Volt	12.	Work	:	Joule

Instrument and Measurement

Eg: Barometer : Pressure : : Speedometer : Speed
Barometer is used to measure Pressure. Speedometer is used to measure Speed.

1. Ammeter : Current
2. Anemometer : Wind Velocity
3. Balance : Mass
4. Hygrometer : Humidity
5. Rain Gauge : Rain
6. Screw Gauge : Thickness
7. Seismograph : Earth-quakes
8. Sphygmomanometer : Blood Pressure
9. Thermometer : Temperature

Study and Topic

Eg: Botany : Plants : : Ornithology : Birds
Botany is the study of Plants, Ornithology is the study of Birds.

1. Anthropology : Man
2. Astrology : Future
3. Conchology : Shells
4. Cardiology : Heart
5. Entomology : Insects
6. Haematology : Blood
7. Nephrology : Kidney
8. Oology : Eggs
9. Orography : Mountains
10. Palaeontology : Fossils
11. Pedology : Soil
12. Pathology : Diseases
13. Semantics : Language
14. Seismology : Earth-quakes
15. Taxonomy : Classification
16. Zoology : Animals

Animal and Young Ones

Eg: Cat : Kitten : : Dog : Puppy
Kitten is the young one of a Cat and Puppy is the young one of a Dog.

1. Butterfly : Catterpillar
2. Cow : Calf
3. Duck : Duckling
4. Frog : Tadpole
5. Hen : Chicken
6. Horse : Pony
7. Lion : Cub
8. Man : Child
9. Pig : Piglet
10. Stallion : Colt
11. Sheep : Lamb
12. Swan : Cygnet

Male and Female

Eg: Son : Daughter : : Nephew : Niece

1. Drone : Bee
2. Dog : Bitch
3. Gentleman : Lady
4. Horse : Mare
5. Lion : Lioness
6. Stag : Doe
7. Tiger : Tigress
8. Uncle : Aunt

Word and Synonym

Eg: Mend : Repair : : House : Home

1. Abode : Dwelling
2. Abduct : Kidnap
3. Ban : Prohibition
4. Blend : Mix
5. Brim : Edge
6. Dissipate : Squander
7. Fierce : Violent
8. Happy : Glad
9. Presage : Predict
10. Solicit : Request
11. Substitute : Replace
12. Aborigine : Native

Word and Antonym

Eg: Ignore : Notice : : Friend : Foe

1. Advance : Retreat
2. Best : Worst
3. Cruel : Kind
4. Chaos : Peace
5. Create : Destroy
6. Cordial : Hostile
7. Deep : Shallow
8. Gentle : Harsh
9. Gradual : Abrupt
10. Initial : Final
11. Kindle : Extinguish
12. Lend : Borrow
13. Robust : Weak
14. Sink : Float

13. Word and Intensity

Eg: Anger : Rage : : Joy : Ecstasy
Rage is greater degree of Anger and Ecstasy is greater degree of Joy.

1. Crime : Sin
2. Error : Blunder
3. Famous : Renowned
4. Quarrel : War
5. Refuse : Deny
6. Sink : Drown
7. Unhappy : Sad
8. Wish : Desire

Speed Developing Practice Test No. 3

Directions: In each of the following questions there is a certain relation between the two given words on one side of : : and one word is given on the other side of : : while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair. Choose the correct alternative.

1. Girl : Beautiful : : Boy : ?
   (1) Smart (2) Heroic (3) Courageous
   (4) Handsome (5) None of these
2. Anatomy : Zoology : : Paediatrics : ?
   (1) Chemistry (2) Medicine (3) Palaeontology
   (4) Mechanics (5) None of these
3. Matricide : Mother : : Homicide : ?
   (1) Human being (2) Children (3) Father
   (4) Apes (5) None of these
4. Microphone : Loud : : Microscope : ?
   (1) Increase (2) Investigate (3) Examine
   (4) Magnify (5) None of these
5. Line : Square : : Arc : ?
   (1) Ring (2) Sphere (3) Circle
   (4) Ball (5) None of these
6. Meat : Vegetarian : : Liquor : ?
   (1) Insane (2) Introvert (3) Teetotaller
   (4) Foolish (5) None of these

7. Tuberculosis : Lungs : : Cataract : ?
   (1) Ear (2) Throat (3) Skin
   (4) Eye (5) None of these
8. Professor : Lecture : : Doctor : ?
   (1) Hospital (2) Disease (3) Medicine
   (4) Patient (5) None of these
9. Victory : Encouragement : : Failure : ?
   (1) Sadness (2) Defeat (3) Anger
   (4) Frustration (5) None of these
10. Doctor : Diagnosis : : Judge : ?
   (1) Court (2) Punishment (3) Lawyer
   (4) Judgement (5) None of these

Directions: The following questions consist of two words that have a certain relationship between each other, followed by four lettered pairs of words. Select the lettered pair that has the same relationship as the original pair of words.

11. Restaurant : Menu
   (1) Library : Catalogue (2) Journal : Newspaper
   (3) Book : Encyclopaedia (4) College : Account.
   (5) None of these.
12. Heart : Cardiology
   (1) Brain : Psychology (2) History : Histology
   (3) Civics : Polity (4) Fossils : Palaeontology
   (5) None of these.
13. Soldier : Regiment
   (1) Flower : Bunch (2) Drop : Ocean
   (3) Sailor : Crew (4) Deer : Jungle
   (5) None of these.
14. Acoustic : Sound
   (1) Mathematics : Geometry (2) Radio : Song
   (3) Pathology : Disease (4) Communication : Phone
   (5) None of these.
15. Yen : Currency
   (1) Brass : Metal (2) Hen : Poultry
   (3) Paper : Book (4) Karnataka : State
   (5) None of these.
16. Bird : Wings
   (1) Whale : Water (2) Dog : Lungs
   (3) Car : Wheels (4) Pen : Paper
   (5) None of these.
17. Aspirin : Headache
   (1) Amoeba : Dysentry (2) Acid : Burns
   (3) Quinine : Malaria (4) Iron : Aneamia
   (5) None of these.
18. Sprain : Fracture
   (1) Cool : Cold (2) Accident : Death
   (3) Pneumonia : Fever (4) Fall : Slip
   (5) None of these.
19. Ampere : Current
   (1) Sound : Wave (2) Speed : Time
   (3) Distance : Kilometre (4) Ohm : Resistance
   (5) None of these.
20. Muslims : Quran
   (1) Hindus : Temple (2) Sikhs : Avesta
   (3) Christians : Christ (4) Jews : Torah
   (5) None of these.

Directions: In each of the following questions the first two words have a definite relationship. Choose one word out of the given four alternatives which will fill in the blank space and show the same relationship with the third word as between the first two.

21. Soap is related to Wash in the same way as Broom is related to ————
   (1) Clean (2) Dust (3) Sweep
   (4) Floor (5) None of these
22. Happiness in related to Sorrow in the same way as Comfort is related to ————
   (1) Hardship (2) Rest (3) Poverty
   (4) Difficulty (5) None of these
23. Bicycle is to Pedal as Boat is to ————
   (1) Steering (2) Water (3) Oar
   (4) Sail (5) None of these
24. Hygrometer is to Humidity as Sphygmomanometer is to ————
   (1) Pressure (2) Blood Pressure
   (3) Precipitation (4) Heartbeat
   (5) None of these
25. Drama is related to Scene in the same way as Book is related to ————
   (1) Story (2) Page (3) Chapter
   (4) Author (5) None of these

Answers: Speed Developing Practice Test No. 3

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

Explanatory Answers:
Speed Developing Practice Test No. 3

1. (4) "Beautiful' describes the quality of prettiness in girls while 'Handsome' describes the quality of prettiness in boys.
2. (2) Anatomy is a branch of Zoology. Likewise, Paediatrics is a branch of medicine.
3. (1) Matricide is killing of mother, in the same way Homicide is killing of human beings.
4. (4) A microphone makes sound louder and a microscope magnifies an object.
5. (3) First is a part of the second.
6. (3) A vegetarian never eats meat. Similarly, a teetotaller never drinks liquor.
7. (4) Tuberculosis is a disease of the lungs. Similarly, cataract is a disease of the eye.
8. (3) Professor delivers lecture to his students. Similarly, doctor gives medicine to his patients.
9. (4) Victory leads to encouragement whereas failure brings frustration.
10. (4) The function of a doctor is to diagnose a disease and that of a judge is to give judgement.
11. (1) Menu gives a list of the items presented in a restaurant. Calalogue gives the list of books in a library.
12. (4) The study of heart is called cardiology. Similarly, the study of fossils is called palaeontology.
13. (3) A group of soldiers is called a regiment. Similarly, a group of sailors is called a crew.
14. (3) Acoustic is the science of sounds. Similarly, pathology is the study of diseases.
15. (4) Yen is a currency. Similarly, Karnataka is a state.
16. (3) Wings help a bird to move car moves with the help of wheels.
17. (3) Aspirin is used to cure headache. Quinine cures Malaria
18. (1) Second is a more intensive form of the first.
19. (4) Ampere is the unit of current. Similarly, ohm is the unit of resistance.
20. (4) Quran is the holy book of Muslims. Similarly, Torah is the holy book of Jews.
21. (3) Second denotes the function of the first.
22. (1) The given words are opposite to each other.
23. (3) The second is the tool which is used to move the first.
24. (2) Hydrometer is an instrument to measure Humidity. Sphygmo manometer measures Blood Pressure.
25. (3) Second is a unit of the first.

Speed Developing Practice Test No. 4

Directions: In each of the following questions there is a certain relation between two given words on one side of : : and one word is given on the other side of : : while another word is to be found from the given alternatives, having the same relation with this word as the words of the given pair. Choose the correct alternative.

1. Arm : Elbow : : Leg : ?
   (1) Toe (2) Knee (3) Thigh
   (4) Ankle (5) None of these
2. Shoes : Cobbler : : Spectacles : ?
   (1) Optician (2) Eye (3) Read
   (4) See (5) None of these
3. Doctor : Patient : : Lawyer : ?
   (1) Customer (2) Accused (3) Client
   (4) Magistrate (5) None of these
4. Video : Cassette : : Computer : ?
   (1) Reels (2) Recordings (3) Files
   (4) Floppy (5) None of these
5. Rupee : India : : Yen : ?
   (1) Pakistan (2) Japan (3) Bangladesh
   (4) Turkey (5) None of these
6. Jews : Synagogue : : Buddist : ?
   (1) Temple (2) Vedas (3) Pagoda
   (4) Fire-temple (5) None of these

7. Major : Battalion : : Colonel : ?
(1) Company (2) Regiment (3) Army
(4) Soldiers (5) None of these

8. Dog : Rabies : : Mosquito : ?
(1) Plague (2) Death (3) Malaria
(4) Sting (5) None of these

9. Pesticide : Crop : : Antiseptic : ?
(1) Wound (2) Clotting (3) Bandage
(4) Bleeding (5) None of these

10. Igloos : Canada : : Rondavels : ?
(1) Africa (2) Rangoon (3) Russia
(4) Indonesia (5) None of these

Directions: The following questions consist of two words that have a certain relationship between each other, followed by four numbered pairs of words. Select the numbered pair that has the same relationship as the original pair of words.

11. Dove : Peace
(1) Crow : Scavenge (2) Knife : Cut
(3) Lull : Storm (4) Pearl : Purity
(5) None of these

12. Horse : Mare
(1) Duck : Geese (2) Dog : Puppy
(3) Donkey : Pony (4) Fox : Vixen
(5) None of these

13. Cricket : Pitch
(1) Ship : Dock (2) Boat : Harbour
(3) Wrestling : Track (4) Boxing : Ring
(5) None of these

14. Preamble : Constitution
(1) Word : Dictionary (2) Contents:Magazine
(3) Explanation : Poetry (4) Preface : Book
(5) None of these

15. Rocket : Fuel
(1) Man : Energy (2) Machine : Oil
(3) Current : Electricity (4) River : Water
(5) None of these

16. Large : Enormous
(1) Big : Small (2) Plump : Fat
(3) Less : Greater (4) Pain : Ecstasy
(5) None of these

17. Inn : Traveller
(1) Lodging : Man (2) Country : Citizen
(3) Dormitory : Students (4) Ashram : Gurus
(5) None of these

18. Optimistic : Pessimistic
(1) Difficult : Impossible (2) Study : Play
(3) Tolerating : Disgusting (4) Export : Import
(5) None of these

19. Acquire : Inherit
(1) Profit : Loss (2) Learn : Discover
(3) Instinct : Habit (4) Hierarchial: Succession
(5) None of these

20. Balance : Weigh
(1) Aeoroplane : Height (2) Radar : Detection
(3) Satellite : Revolution (4) Television : Picture
(5) None of these

Directions: In each of the following questions the first two words have definite relationship. Choose one word out of the given four alternatives which will fill in the blank space and show the same relationship with the third word as between the first two.

21. Taj Mahal is related to Love in the same way as Jallianwalabagh is related to ——— ?
(1) Amritsar (2) Martyrdom (3) War
(4) Punjab (5) None of these

22. Poison is related to Socrates in the same way as Crucification is related to ——— ?
(1) Jesus (2) Christians (3) Aristotle
(4) Church (5) None of these

23. Tempest is to Storm as Slim is to ——— ?
(1) Fat (2) Plump (3) Slender
(4) Beautiful (5) None of these

24. Ladies is to Purse as Gents is to ——— ?
(1) Bag (2) Pocket (3) Wallet
(4) Case (5) None of these

25. Article is to Magazine as Slokas is to ——— ?
(1) Ascetic (2) Veda (3) Recite
(4) Book (5) None of these

Answers: Speed Developing Practice Test No. 4

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

Explanatory Answers: Speed Developing Practice Test No. 4

1. (4) Knee is related to leg in the same way as elbow is to arm.
2. (1) Shoes are made by a cobbler. Similarly spectacles are designed by an optician.
3. (3) First works for the second.
4. (4) Here the recording of the second are visualised on the first.
5. (2) Rupee is the currency of India and Yen is the currency of Japan.
6. (3) Jews worship in a Synagogue likewise Buddhists worship in a Pagoda.
7. (2) As Major heads a battalion, the Colonel commands a regiment.
8. (3) Dog bite causes rabies, similarly the bite of a mosquito causes malaria.
9. (1) Pesticide protects crops from insects and antiseptic protects wounds from germs.
10. (1) Igloos is the type of houses most commonly found in Canada and Rondavals in Africa.
11. (4) Dove is a symbol of peace similarly, pearl is a symbol of purity.
12. (4) Second is the feminine gender of the first.
13. (4) The game of cricket is played on a pitch similarly, the game of boxing is performed in a ring.
14. (4) Preamble is the introduction to the Constitution and mentions its main ideals and objectives. Similarly, preface is the introduction to a book.
15. (1) A rocket needs fuel for its working. Similarly a man needs energy to work.
16. (2) Enormous is the extreme of large. Similarly, fat is the extreme of plump.
17. (3) First is the place of night stay for the second.
18. (4) The given words are opposite to each other.
19. (4) First is acquired whereas the second is got by birth.
20. (2) A balance is used to weigh. Similarly a rader is used for detection.
21. (2) Taj Mahal reminds us of love. Similarly, Jallianwala bagh reminds us of martyrdom.
22. (1) First became the cause of death of the second.
23. (3) The first is of higher intensity than the second.
24. (3) Ladies and gents keep their money in purses and wallets respectively.
25. (2) A magazine consists of articles. Likewise, Veda consists of slokas

ALPHABET ANALOGY

There is another kind of analogy that can be asked in this section. In this type of question, two groups of letters related to each other in some way are given. The candidate is required to find this relationship and choose a group of letters which is related in the same way to a third group provided in the question.

Eg. 1. NFK : PHM : : AXH : ?

(1) BYI (2) ZWG (3) CZJ (4) DAK(5) YVF

Sol. (3) Each letter of the first group is moved two steps forward to obtain the corresponding letter of the second group. A similar relationship will exist between the third and the fourth groups.

Speed Developing Practice Test No. 5

1. EGI : JLO : : PRT : ?

   (1) AYW (2) WYA (3) YWA
   (4) VXA (5) VXZ

2. NOP : UVW : : PON : ?

   (1) VUW (2) WVU (3) WUV
   (4) UVW (5) UWV

3. GIKM : HKNQ : : HJLN : ?
(1) LIOR (2) LIRO (3) ILRO
(4) ILOR (5) IOLR

4. REYN : TGZO : : WJPA : ?
(1) QBRN (2) MQXB (3) ROMB
(4) YLQB (5) VWYA

5. PSXM : QRYL : : BFTV : ?
(1) AESU (2) CEUU (3) DHVW
(4) CGUV (5) AGSW

6. SADL : XFZH : : LIOE ?
(1) QNKA (2) POLB (3) PMJA
(4) QNKB (5) PMSI

7. PRLN : XZTV : : JLFH : ?
(1) RTNP (2) NPRT (3) NRPT
(4) NTRP (5) RPNT

8. KWMT : MXOU : : PSAQ : ?
(1) RCRT (2) QRTC (3) QTRC
(4) RQTC (5) RTCR

9. JNQS : OIVN : : EHMQ : ?
(1) IBQM (2) FINR (3) JBRL
(4) JCRL (5) IRLQ

10. NOPQ : PMRO : : ABCD : ?
(1) CZEB (2) CDEF (3) YZAB
(4) CDAB (5) YZEF

Answers: Speed Developing Practice Test No. 5

1. (4) 2. (2) 3. (4) 4. (4) 5. (2) 6. (1) 7. (1) 8. (5) 9. (4) 10. (1)

Explanatory Answers: Speed Developing Practice Test No. 5

1. (4) EGI forms a sequence of alternate letters, while in JLO, the first two letters are consecutive and there is a gap of two letters between second and third letters. Similarly PRT forms a sequence of alternate letters. The group having properties similar to JLO is VXA.
2. (2) PON is the reverse of NOP. Similarly, the reverse of UVW is WVU
3. (4) The first, second, third and fourth letters of the first group are moved one, two, three and four steps forward respectively to obtain the corresponding letters of the second group. A similar relationship will exist between the third and the fourth groups.
4. (4) The first and the second letters of the first group are each moved two steps forward to obtain the first and the second letters of the second group respectively. The third and the fourth letters of the first group each are moved one step forward to obtain the third and the fourth letters of the second group respectively.
5. (2) The first and the third letters of the first group are each moved one step forward to obtain the first and the third letters of the second group respectively. The second and the fourth letters of the first group are each moved one step backward to obtain the second and the fourth letters of the second group respectively.
6. (1) The first and the second letters of the first group are moved five steps forward to obtain the corresponding letters of the second group. The third and the fourth letters are moved four steps backward. A similar relationship will exist between the third and the fourth groups.
7. (1) Each letter of the first group is moved eight steps forward to obtain the corresponding letters of the second group. A similar relationship will exist between the third and the fourth group.
8. (5) The first and the third letters of the first group are each moved two steps forward to obtain the corresponding letters of the second group. The second and the fourth letters of the first group are each moved one step forward to obtain the corresponding letters of the second group.
9. (4) The first and the third letters of the first group are moved five steps forward and the second and the fourth letters are moved five steps backward to obtain the corresponding letters of the second group. The third and the fourth groups will also be related in the same way.
10. (1) The first and the third letters of the first groups are each moved two steps forward to obtain the first and the third letters of the second group. The second and the fourth letters are moved two steps backward.

SERIES COMPLETION

This section deals with questions in which series of numbers or letters are given. The term follows a certain pattern throughout. The candidate is required to recognise this pattern either to complete the given series with the most suitable alternative or to find the wrong term in the series.

NUMBER SERIES

Eg. 1 Which number would replace the question mark (?) in the series 2, 7, 14, 23, ?, 47

(1) 28 (2) 34 (3) 31 (4) 38 (5) None

Ans: The given sequence is +5, +7, +9, ——

ie. 2+ 5 = 7, 7 + 7 = 14, 14 + 9 = 23

Missing Number = 23 + 11 = 34.

2. Which is the number that should come next in the following series?

4, 6, 12, 14, 28, 30, ——

(1) 32 (2) 64 (3) 62 (4) 60 (5) None

Ans: The given sequence is a combination of two series 4, 12, 28, ... and 6, 14, 30, ... Clearly the number to be found belongs to the first series. Now the pattern followed is +8, +16, +32.

So, missing number = (28 + 32) = 60

Hence the answer is (4)

3. Find the wrong number in the series.

7, 28, 63, 124, 215, 342

(1) 7 (2) 28 (3) 124 (4) 215 (5) None

Ans: The correct sequence is $2^3 - 1$, $3^3 - 1$, $4^3 - 1$, ...etc.

Here 28 is wrong; so the answer is (2)

ALPHABET SERIES

Alphabet series consists of letters of the alphabet placed in a specific pattern. If you keep in your mind the order of the letters with their respective numbers it will help you answer the questions quickly.

1	2	3	4	5	6	7	8	9	10	11	12	13
A	B	C	D	E	F	G	H	I	J	K	L	M
26	25	24	23	22	21	20	19	18	17	16	15	14

14	15	16	17	18	19	20	21	22	23	24	25	26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
13	12	11	10	9	8	7	6	5	4	3	2	1

Eg: 4 What will be the next term in

BKS, DJT, FIU, HHV, ?

(1) IJX (2) IGX (3) JGW (4) IGU(5) JGU

Ans: (3). In each term, the first letter is moved two steps forward, the second letter one step backward and the third letter one step forward to obtain the corresponding letter of the next term. So, the missing term is JGW.

LETTER SERIES

This type of question usually consists of a series of small letters which follow a certain pattern. However some letters are missing from the series. These missing letters are then given in a proper sequence as one of the alternatives. The candidate is required to choose this alternative as the answer.

Eg: 5. aab - aaa - bba -

(1) baa (2) abb (3) bab (4) aab(5) bbb

1. The first blank space should be filled in by 'b' so that we have two a's followed by two bs.
2. The second blank space should be fiiled in either by 'a'. So that we have four as followed by two bs or by 'b'. So that we have three as followed by three bs.
3. The last space must be filled in by 'a'.
4. Thus we have two possible answers - 'baa' and 'bba'. But only 'baa' appears in the alternatives. So the answer is (1).
5. In case we had both the possible answers in the alternatives, we should choose the one that forms a more prominent pattern, which is aabb/aaabbb/aa. and our answer would have been 'bba'.

Speed Developing Practice Test No. 6

Directions: In each of the following questions a number series is given with one term missing. Choose the correct alternative that will continue the same pattern and fill in the blank spaces.

1. 4, 9, 13, 22, 35, ——

(1) 57 (2) 70 (3) 63

(4) 75 (5) None of these

2. 11, 13, 17, 19, 23, 29, 31, 37, 41, ——
   (1) 43 (2) 47 (3) 51
   (4) 53 (5) None of these
3. 15, 31, 63, 127, 255, ——
   (1) 513 (2) 511 (3) 517
   (4) 523 (5) None of these
4. 5, 11, 17, 25, 33, 43, ——
   (1) 49 (2) 51 (3) 52
   (4) 53 (5) None of these
5. 9, 12, 11, 14, 13, ——, 15
   (1) 12 (2) 16 (3) 10
   (4) 17 (5) None of these

Directions: In each of the following questions, one term in the number series is wrong. Find the wrong term.

6. 125, 126, 124, 127, 123, 129
   (1) 123 (2) 124 (3) 126
   (4) 127 (5) 129
7. 10, 26, 74, 218, 654, 1946, 5834
   (1) 26 (2) 74 (3) 218
   (4) 654 (5) 1946
8. 1, 2, 6, 15, 31, 56, 91
   (1) 31 (2) 15 (3) 56
   (4) 91 (5) 2
9. 3, 7, 15, 39, 63, 127, 255, 511
   (1) 39 (2) 15 (3) 7
   (4) 63 (5) 127
10. 56, 72, 90, 110, 132, 150
   (1) 72 (2) 90 (3) 110
   (4) 132 (5) 150

Directions: In each of the following questions, various terms of a letter series are given with one term missing. Choose the missing term out of the given alternatives.

11. cmw, hrb, ——, rbl, wgq, blv
   (1) mwg (2) lvf (3) lwg
   (4) mxg (5) wmx
12. DKY FJW HIU JHS ——
   (1) KGR (2) LFQ (3) KFR
   (4) LGQ (5) None of these
13. —— siy oeu kaq gwm csi
   (1) wne (2) wnb (3) vne
   (4) vme (5) None of these
14. BXJ ETL HPN KLP ——
   (1) NHR (2) MHQ (3) MIP
   (4) NIR (5) None of these
15. QPO, SRQ, UTS, WVU, ——
   (1) XVZ (2) ZYA (3) YXW
   (4) VWX (5) AZY
16. P3C, R5F, T8I, V12L, ——
   (1) Y17O (2) X17M (3) X17O
   (4) X16O (5) None of these
17. D-4, F-6, H-8, J-10, ——, ——
   (1) K-12, M-13 (2) L-12, M-14 (3) L-12, N-14
   (4) K-12, M-14 (5) K-12, N-14
18. G, H, J, M, ——, V
   (1) T (2) S (3) R
   (4) U (5) Q
19. OTE PUF QVG RWH ——
   (1) SYJ (2) TXI (3) SXJ
   (4) SXI (5) QWD
20. BD GI LN QS ——
   (1) TV (2) VW (3) WX
   (4) WY (5) VX

Directions: In each of the following letter series, some of the letters are missing which are given in that order as one of the alternatives below it. Choose the correct alternative.

21. ba-ba - bac - acb - cbac
   (1) aacb (2) bbca (3) ccba
   (4) cbac (5) None of these
22. adb - ac - da - cddcb - dbc - cbda
   (1) bccba (2) cbbaa (3) ccbba
   (4) bbcad (5) None of these
23. a - ba - cbaac - aa - ba
   (1) ccbb (2) cabc (3) cbcb
   (4) bbcc (5) None of these
24. - bc - - bb - aabc
   (1) acac (2) babc (3) abab
   (4) aacc (5) None of these
25. b - b - bb - - bbb - bb - b
   (1) bbbbba (2) bbaaab (3) abababb
   (4) aabaab

Answers: Speed Developing Practice Test No. 6

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

Explanatory Answers:
Speed Developing Practice Test No. 6

1. (1) Sum of two consecutive numbers of the series gives the next number.
2. (1) The series consists of prime numbers.
   ∴ The missing number is the next prime number, which is 43.
3. (2) Each number is double the preceding one plus 1.
   So, the next number is $(255 \times 2) + 1 = 511$
4. (4) The sequence is +6, +6, +8, +8, +10, ---------
   So the missing number = 43 + 10 = 53
5. (2) Alternatively we add 3 and subtract 1.
   Thus 9 + 3 = 12, 12 - 1 = 11, 11 + 3 =14 and so on.
   ∴ the missing number = 13 + 3 = 16
6. (5) The sequence is +1, -2, +3, -4, +5. So 129 is wrong. The correct term should be 128.
7. (4) Each term is four less than the preceding number multiplied by 3. Thus 654 is wrong, the correct term being 650.
8. (4) The sequence is $+1^2$, $+2^2$, $+3^2$, $+4^2$, $+5^2$, $+6^2$. The correct term being 92 instead of 91.
9. (1) Each number in the series is multiplied 2 and the result is increased by 1 to obtain the next number ∴ 39 is wrong. The correct term being 31.
10. (5) The numbers are 7×8, 8×9, 9×10, 10×11, 11×12, 12×13 so 150 is wrong.
11. (1) All the letters of each term are moved five steps forward to obtain the corresponding letters of the next term.
12. (4) The first letters of all the terms are alternate. The second letter of each term is moved one step backward to obtain the second letter of the successive term. The third letter of each term is moved two steps backward to obtain the third letter of the subsequent term.
13. (5) The letters in each term are moved four steps backward to obtain the letters of the next term.
14. (1) The first, second and third letters of each term are moved three steps forward, four steps backward and two steps forward respectively to obtain the corresponding letters of the successive term.
15. (3) Each term in the series consists of three consecutive letters in reverse order. The first letter of each term and the last letter of the term are the same.
16. (3) The first letters of the terms are alternate. The sequence followed by the numbers is +2, +3, +4, ------The last letter of each term is three steps ahead of the last letter of the preceding term.
17. (3) The letters in the series are alternate and the numbers indicate their position in the alphabet from the beginning.
18. (5) The first, second, third, fourth and fifth terms are moved one, two, three, four and five steps respectively forward to obtain the successive terms.
19. (4) The first letters of the terms are in alphabetical order, and so are the second and the third letter.
20. (5) Each term of the series consists of two alternate letters and there is a gap of two letters between the last letter of each term and the first letter of the next term.
21. (3) The series is bac/bac/bac/bac/bac/bac. Thus the pattern bac is repeated.
22. (2) The series is adb<u>c</u>/ac<u>b</u>d/a<u>b</u>cd/dcb<u>a</u>/dbc<u>a</u>/cbda. Here the letters equidistant from the beginning and the end of the series are the same.
23. (2) The series is acba/acba/acba/acba. Thus, the pattern acba is repeated.
24. (1) The series is abc/cab/bca/abc. Thus the letters are in cyclic order.
25. (3) The series is b/<u>a</u>/b<u>b</u>bb/<u>a</u>/<u>b</u>bbb/<u>a</u>/bb<u>b</u>b. Thus, in each sequence, 'a' moves one step forward and 'b' takes its place and finally in the fourth sequence, it is eliminated.

CODING - DECODING

A code is a system of signals. Therefore, coding is a method of transmitting messages between the sender and receiver without a third person understanding it.

The Coding and Decoding test is set up to judge the candidate's ability to decipher the law that codes a particular message and break the code to reveal the message.

LETTER CODING

A particular letter stands for another letter in letter coding.

Eg: If COURSE is coded as FRXUVH, how is RACE coded in that code?

(1) HFDU (2) UCFH (3) UDFH
(4) UDHF (5) UDFG

In the given code, each letter is moved three steps forward than the corresponding letter in the word. So R is coded as U, A as D, C as F, E as H. Hence (3) is the answer.

NUMBER CODING

In these questions, either numerical code values are assigned to a word or alphabetical code values are assigned to numbers. The candidate is required to analyse the code as per directions.

Case I: When numerical values are assigned to words.

Eg: If in a certain code ROPE is coded as 6821, CHAIR is coded as 73456 what will be the code for CRAPE?

(1) 73456 (2) 76421 (3) 77246
(4) 77123 (5) None of these

Clearly, in the given code, the alphabets are coded as follows.

R	O	P	E	C	H	A	I
6	8	2	1	7	3	4	5

So CRAPE is coded as 76421

So the answer is (2)

Case II: When alphabetical code values are assigned to the numbers.

Eg: In a certain code 3456 is coded as ROPE. 15546 is coded as APPLE. Then how is 54613 coded?

(1) RPPEO (2) ROPEA (3) POEAR
(4) PAREO (5) None of these

Clearly in the given figures, the numbers are coded as follows.

3	4	5	6	1	4
R	O	P	E	A	L

So 54613 is coded as POEAR. The answer is (3)

MIXED CODING

In this type of question, three or four complete messages are given in the coded language and the code for a particular word is asked.

To analyse such codes, any two messages bearing the common word are picked up. The common code word will mean that word. Proceeding similarly by picking up all possible combinations of two messages the entire message can be analysed.

Eg: If *tee see pee* means *drink fruit juice*, *see kee lee* means *juice is sweet*, and *lee ree mee* means *he is intelligent*, which word in that language means *sweet*?

(1) see (2) kee (3) lee
(4) pee (5) tee

In the first and the second statements the common word is juice and the common code word is *see*. So *see* means juice. In the second and the third statements, the common word is 'is' and the common code is *lee*. So *lee* means is. Thus in the second statement, the remaining word sweet is coded as kee. Hence the answer is (2).

MIXED NUMBER CODING

In this type of questions, three or four complete messages are given in the coded language and the code number for a particular word is asked.

Eg: If in a certain code language, *851* means *good sweet fruit*; *783* means *good red rose* and *341* means *rose and fruit* which of the following digits stands for *sweet* in that language?

(1) 8 (2) 5 (3) 1
(4) 3 (5) None of these

In the first and the second statements, the common code digit is 8 and the common word is *good*. So 8 stands for *good*. In the first and the third statements, the common code digit is 1 and the common word is *fruit*. So 1 stands for *fruit*. Therefore in the first statement, 5 stands for sweet. Hence the answer is (2).

DECODING

In these questions, artificial or code values are assigned to a word or a group of words and the candidate is required to find out the original words.

Eg: If in a certain language FLOWER is written as EKNVDQ, what will be written as GNTRD?

(1) HEOUS (2) HOUES (3) HUOSE
(4) HOUSE (5) None of these

Each letter of the word is one step ahead of the corresponding letter of the code.

E	K	N	V	D	Q		G	N	T	R	D
↓	↓	↓	↓	↓	↓		↓	↓	↓	↓	↓
F	L	O	W	E	R		H	O	U	S	E

Thus HOUSE is written as GNTRD, So the answer is (4)

NEW TYPE OF CODING

This is a kind of coding recently included in the Reasoning section. In this type of questions either alphabetical code values are assigned to symbols or symbols are assigned to alphabets. The candidate is required to analyse the code as per direction.

Eg: 1. In a certain code 'TOME' is written as @ $ * ? and ARE is written as ' • £ ? ' How can 'REMOTE' be written in that code?

(1) £ ? • $ @ ? (2) @ ? * $ @ ? (3)£ ? * $ @ ?
(4) Cannot be determined (5) None of these

Sol: From the data we have

T ⇒ @ O ⇒ $ M ⇒ * E ⇒ ? and
A ⇒ • R ⇒ £ E ⇒ ?

Hence REMOTE is coded as £ ? * $ @ ? So (3) is the answer.

Speed Developing Practice Test No. 7

1. If in a certain language CHAMPION is coded as HCMAIPNO, how can NEGATIVE be coded in that code?
   (1) ENAGITEV (2) NEAGVEIT (3) MGAETVIE
   (4) EGAITEVN (5) NEGATIEV
2. In a certain language KINDLE is coded as ELDNIK, how can EXOTIC be coded in that code?
   (1) EXOTLC (2) CXOTIE (3) COXITE
   (4) CITOXE (5) EOXITC
3. If in a certain language GAMBLE is coded as FBLCKF, how can FLOWER be coded in that language?
   (1) GKPVFQ (2) EMNXDS (3) GMPVDS
   (4) HNQYGT (5) EKNVDQ
4. If in a certain language FASHION is coded as FOIHSAN, how can PROBLEM be coded in that code?
   (1) ROBLEMP (2) PLEBRUM (3)PRBOELM
   (4) RPBOELM (5) PELBORM
5. If FRIEND is coded as HUMJTK, how can CANDLE be written in that code?
   (1) EDRIRL (2) DCQHQK (3) ESJFME
   (4) FYOBOC (5) DEQJQM
6. If in a certain code, TWENTY is written as 863985 and ELEVEN is written as 323039, how can TWELVE be written in that code?
   (1) 863203 (2) 863584 (3) 863903
   (4) 863063 (5) None of these
7. If PALE is coded as 2134, EARTH is coded as 41590, how can is PEARL be coded in that language?
   (1) 29530 (2) 24153 (3) 25413
   (4) 25430 (5) None of these
8. If ROSE is coded as 6821, CHAIR is coded as 73456 and PREACH is coded as 961473, what will be the code for SEARCH?
   (1) 246173 (2) 214673 (3) 214763
   (4) 216473 (5) None of these
9. In a certain code *nee tim see* means *how are you* ; *ble nee see* means *where are you*. What will be the code for *where*?
   (1) nee (2) tim (3) see
   (4) Cannot be determined (5) None of these
10. In a certain code language *pit nae tom* means *apple is green* ; *nae ho tap* means *green and white* and *ho tom ka* means *shirt is white*. Which of the following represents *apple* in that language?
    (1) nae (2) tom (3) pit
    (4) ho (5) ka
11. If *nitco sco tingo* stands for *softer than flower* ; *tingo rho mst* stands for *sweet flower fragrance* and *mst sco tmp* stands for *sweet than smile* what would *fragrance stand for?*
    (1) rho (2) mst (3) tmp
    (4) sco (5) None of these
12. In a certain code language, *743* means *Mangoes are good* ; *657* means *Eat good food* ; and *934* means *Mangoes are ripe*. Which digit means *ripe* in that language?
    (1) 5 (2) 4 (3) 9
    (4) 7 (5) Cannot be determined

13. In a certain code, *247* means *spread red carpet* ; *256* means *dust one carpet* and *264* means *one red carpet* which digit in that code means *dust*?
(1) 2 (2) 3 (3) 5
(4) 6 (5) Cannot say

14. In a certain code language, *134* means *good and tasty*, *478* means *see good pictures* ; and *729* means *pictures are faint*. Which of the following digits stands for *see*?
(1) 4 (2) 7 (3) 9
(4) 8 (5) None of these

15. In a certain code *253* means *books are old* ; *546* means *man is old* and *378* means *buy good books*. What stands for '*are*' in that code?
(1) 2 (2) 4 (3) 5
(4) 6 (5) 9

16. In a certain code language TSSNOFFQ is written as STRONGER then GQFDENN will be written as
(1) DOMEERF (2) FEEDORM (3)FREEDOM
(4) FREEDMO (5) None of these

17. If FULFNHW is the code for CRICKET, EULGH will be coded as
(1) PRIDE (2) BRIDE (3) BLADE
(4) BLIND (5) None of these

18. If in a certain language REMOTE is coded as ROTEME, which word would be coded as PNIICC?
(1) NPIICC (2) PICCIN (3) PINCIC
(4) PICNIC (5) PICINC

Directions (19-21): The number in each question below is to be codified in the following code.

Digit:	5	3	7	1	4	9	6	2	8
Letter:	C	J	O	X	N	Q	T	Z	F

19. 163542
(1) XTJCNZ (2) TXJCNZ (3) XTJCZN
(4) XTCJNZ (5) None of these

20. 925873
(1) ZQCFOJ (2) QZCFOJ (3) QZCOFJ
(4) QZCFJO (5) None of these

21. 741568
(1) ONCXTF (2) NOXCFT (3) ONCFCT
(4) ONXCTF (5) None of these

22. In a certain code ORANGE is written as ' ? ÷ @ • + * ' and EAT is written as ' * @ $'. How can ROTATE be written in that code?
(1) ÷ ? $ @ * $ (2) ÷ ? $ @ • * (3)÷ ? $ @ $ *
(4) ÷ ? $ * • @ (5) None of these

23. In a certain code 'PALM' is written as ' £ @ ? $ ' and 'ARM' is written as ' @ * $ '. How can 'ALARM' be written in that code?
(1) @ £ @ ? $ (2) @ $? £ @ (3) ? @ @ £ $
(4) @ ? @ £ $ (5) None of these

24. In a certain code 'HEAT' is written as ' ? * $ @ ' and 'FINGER' is written as '☸ £ • & *@'. How can 'FATHER' be written in that code?
(1) ☸$ @ ? *@ (2) $ @ ☸? @* (3)@ ? ☸@ $*
(4) ☸$ @ ? @* (5) None of these

25. In a certain code 'BODE' is written as ' @ $ * ? ' and 'EAT' is written as ' ? • £ ' How can 'DEBATE' be written in that code?
(1) ? * @ * £ • (2) * ? @ • £ ? (3)* ? @ * £ ?
(4) Cannot be determined (5) None of these

Answers: Speed Developing Practice Test No. 7

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

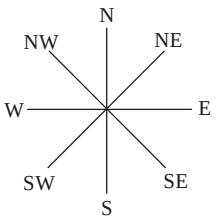
Explanatory Answers:
Speed Developing Practice Test No. 7

1. (1) In the code each of the two letters are reversed in arrangement.
2. (4) In the code the arrangement of the letters in the word is wholly reversed.
3. (2) The letters preceding the first, third and fifth letters of the given word and those succeeding the second, fourth and last letters of the word in the alphabet form the code.
4. (5) The 1st and the last letters of the word are kept as such in the code and all other letters in between them are wholly reversed.
5. (1) In the code, the first letter is the second alphabet, the second letter is the third alphabet, the third letter is the fourth alphabet and so on after the corresponding letter in the word.
6. (1) The letters are coded accordingly T as 8, W as 6, E as 3, L as 2, and V as 0. So TWELVE is coded as 863203.
7. (2) The letters are coded accordingly P as 2, E as 4, A as 1, R as 5 and L as 3. So PEARL is coded as 24153.
8. (2) The letters are coded accordingly S as 2, E as 1, A as 4, R as 6, C as 7 and H as 3. i.e., 214673
9. (5) In the first and the second statements the common words are '*are*' and '*you*' and the common code words are *nee* and *see*. So *nee* and *see* means *are* and *you*. In the second statement the remaining code *ble* means *where*.
10. (3) In the first and the second statements, the common code word is *nae* and the common word is green. So *nae* means *green*. In the first and the third statements, the common code word is *tom* and the common word is *is* so *tom* means *is*. Therfore in the first statement *pit* means *apple*.
11. (1) In the first and the second statements the common code is *tingo* and the common word is *flower*. So *tingo* means *flower*. In the second and the third statements, the common code is *mst* and the common word is *sweet*. So *mst* means *sweet*. Therefore in the second statement, *rho* means *fragranee*.
12. (3) In the first and the third statements, the common code digits are *4* and *3* ; and the common words are *mangoes* and *are*. So *4* and *3* are the codes for *mangoes* and *are*. Thus in the third statement *9* means *ripe*.
13. (3) In the first and the second statements, the common code digit is *2* and the common word is *carpet*. So *2* means *carpet*. In the second and the third statements, the common code digit is *6* and the common word is *one*. So *6* means one. Therefore in the second statement, *5* means *dust*.
14. (4) In the first and the second statements, the common code digit is *4* and the common word is *good*. So *4* stands for *good*. In the second and the third statements, the common code digit is *7* and the common word is *pictures*. So *7* stands for *pictures*. Thus in the second statement *8* stands for *see*.
15. (1) In the first and the second statements, the common code digit is *5* and the common word is *old*, so *5* stands for *old*. In the first and third statements, the common code digit is *3* and the common word is *books* so *3* stands for *books*. Thus in the first statement, *2* stands for *are*.
16. (3) The first letter is moved one step backward and second is moved one step forward the third letter is moved one step backward, the fourth letter one step forward and so on. So the answer is (3)
17. (2) Each letter of the word is three steps ahead of the corresponding letter of the code.
18. (4) The groups of second and third letters and fourth and fifth letters in the word interchange places in the code.
19. (1) As given 1 is coded as X, 6 is coded as T, 3 is coded as J, 5 is coded as C, 4 is coded as N and 2 is coded as Z. So 163542 is coded as XTJCNZ.
20. (2) As given 9 is coded as Q, 2 as Z, 5 as C, 8 as F, 7 as O and 3 as J. So 925873 is coded as QZCFOJ.
21. (4) 7 is coded as O, 4 as N, 1 as X, 5 as C, 6 as T and 8 as F. So 741568 is coded as ONXCTF.
22. (3) O R A N G E E A T
    ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓
    ? ÷ @ • + * * @ $
    So we can code ROTATE as ÷ ? $ @ $ *
23. (5) P ⇒ £ A ⇒ @ L ⇒ ? M ⇒ $ R ⇒ * M ⇒ $
    ALARM ⇒ @ ? @ $ £ *
24. (1) H ⇒ ? A ⇒ $ T ⇒ @ F ⇒ ❁
    I ⇒ £ N ⇒ • G ⇒ & E ⇒ * R ⇒ Δ
    FATHER ⇒ ❁ $ @ ? * Δ
25. (2) B ⇒ @ O ⇒ $ D ⇒ * E ⇒ ? A ⇒ • T ⇒ £
    DEBATE ⇒ * ? @ • £ ?

DIRECTION SENSE TEST

In this test, the questions consist of a sort of direction puzzle. A successive follow-up of direction is formulated and the candidate is required to ascertain the final direction or the distance between two points. The test is meant to judge the candidate's ability to trace, follow and sense the direction correctly.

The figure shows the four main directions (North N, South S, East E, West W) and the four cardinals (North east NE, North west NW, South east SE, South west SW) to help the candidates know the directions.



Speed Developing Practice Test No. 8

1. Deepak starts walking straight towards east. After walking 75 m he turns to the left and walks 25 m straight. Again he turns to the left and walks a distance of 40m straight, again he turns to the left and walks a distance of 25 m. How far is he from the starting point?
   (1) 140 m (2) 35 m (3) 115 m
   (4) 25 m (5) None of these
2. Arun started walking towards North. After walking 30 m, he turned left and walked 40 m. He then turned left and walked 30 m. He again turned left and walked 50 m. How far is he from his original position?
   (1) 50 m (2) 40 m (3) 30 m
   (4) 20 m (5) None of these
3. Ramu went 15 km. to the west from his house, then he turned left and walked 20 km. He then turned east and walked 25 km. and finally turning left covered 20 km. How far is he from his house?
   (1) 5 km. (2) 10 km. (3) 40 km.
   (4) 80 km. (5) None of these
4. Rekha who is facing south turns to her left and walks 15 m, then she turns to her left and walks 7 metres, then facing west she walks 15m. How far is she from her original position?
   (1) 22 m (2) 37 m (3) 44 m
   (4) 7 m (5) None of these
5. Going 50 m to the south of her house, Radhika turns left and goes another 20 m. Then, turning to the north, she goes 30 m and then starts walking to her house. In which direction is she walking now?
   (1) North-west (2) North (3) South-east
   (4) East (5) None of these
6. Shailesh and Mohan start from a fixed point. Shailesh moves 3 km. northward, turns right and then covers 4 km. Mohan moves 5 km westwards, turns right and walks 3 km. The distance between Shailesh and Mohan now is
   (1) 10 km (2) 9 km (3) 8 km
   (4) 6 km (5) 4 km
7. A man walks 30 metres towards south. Then, turning to his right, he walks 30 metres. Then turning to his left, he walks 20 metres. Again, he turns to his left and walks 30 metres. How far is he from his initial position?
   (1) 30 metres (2) 20 metres (3) 80 metres
   (4) 60 metres (5) None of these
8. Suresh starts from his house towards west. After walking a distance of 30 m, he turned towards right and walked 20 metres. He then turned left and moving a distance of 10 metres, turned to his left again and walked 40 metres. He now turns to the left and walks 5 metres. Finally he turns to his left. In which direction is he walking now?
   (1) North (2) South (3) East
   (4) South-West (5) West
9. Raj travelled from a point X straight to Y at a distance of 80 m. He turned right and walked 50 m, then again turned right and walked 70 metres. Finally he turned right and walked 50 m. How far is he from the starting point?
   (1) 20 metres (2) 50 metres (3) 70 metres
   (4) 10 metres (5) None of these

10. A man walks 10 km towards north. From there he walks 6 km towards south. Then he walks 3 km towards east. How far and in which direction is he with reference to his starting point?
(1) 7 km east (2) 5 km west (3) 5 km north-east
(4) 7 km west (5) None of these

11. One morning after sunrise, Sumesh and Ratheesh were standing on a lawn with their backs towards each other. Sumesh's shadow fell exactly towards his left hand side. Which direction was Ratheesh facing?
(1) East (2) West (3) North
(4) South (5) North-east

12. A watch reads 4.30 if the minute hand points east, in what direction does the hour hand point?
(1) North (2) North-west (3) South-east
(4) North-east (5) None of these

13. Five students A, B, C, D and E are sitting in a row, D is on the right of E. B is on the left of E but is on the right of A. D is on the left of C. Who is sitting on the extreme left?
(1) A (2) B (3) C
(4) D (5) E

14. Five persons were playing card game sitting in a circle all facing the centre. Ashish was to the left of Milan Nitin was to the right of Anupam and between Anupam and Mukesh. Who was to the right of Mukesh?
(1) Nitin (2) Milan (3) Mukesh
(4) Ashish (5) Cannot be determined

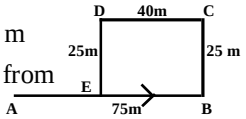
15. Facing the east, Rajesh turned left and walked 10 metres, then he turned to his left again and walked 10 m. He then turned 45° towards his right and went straight to cover 25 metres. In which direction from his starting point is he?
(1) South-west (2) South-east (3) North-west
(4) North-east (5) East

Answers: Speed Developing Practice Test No. 8

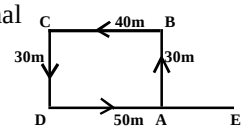
1. (2) 2. (5) 3. (2) 4. (4) 5. (1) 6. (2) 7. (5) 8. (1) 9. (4) 10. (3) 11. (4) 12. (4) 13. (1) 14. (4) 15. (3)

Explanatory Answers: Speed Developing Practice Test No. 8

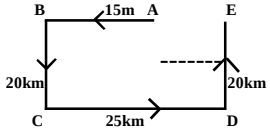
1. (2) The movements of Deepak are as shown in the figure
Clearly, EB = DC = 40 m
∴ Deepak's distance from the starting point A = (AB - EB) = (75 - 40) = 35 metres



2. (5) The movements of Arun are as shown in figure from A to E, clearly Arun's distance from his original position
= AE = (DE - DA)
= (DE - BC) = 10 m.

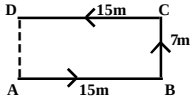


3. (2) The movements of Ramu are as shown in figure.

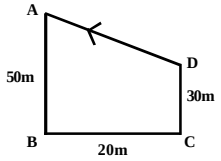


∴ Ramu's distance from his house at A = AE
= (BE - AB) = (CD - AB) = (25 - 15)km = 10 km

4. (4) The movements of Rekha are as shown in figure
∴ Rekha's distance from the starting point A = AD = BC = 7 m.



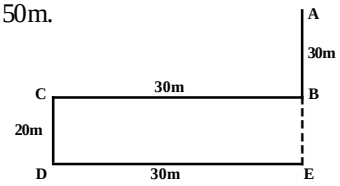
5. (1) The movements of Radhika are as shown in the figure. Thus she is now moving in the direction DA i.e. North-west.



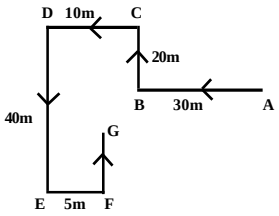
6. (2) Clearly, after travelling their total distances, Shailesh and Mohan are in the same horizontal line at E & C respectively. So distance between them is EC = EB + BC = DA + BC = 5 + 4 = 9 km.

7. (5) The movements of the man are as shown in the figure.

∴ The man's distance from the initial position
= AE = (AB + BE) = (AB + CD) = (30 + 20) m = 50m.

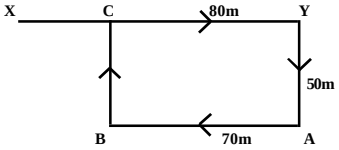


8. (1) The movements of Suresh are as shown in figure from A to G. Clearly, Suresh is walking in the direction FB, ie, North.



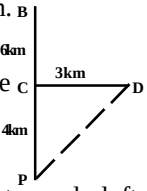
9. (4) The movements of Raj are as shown in figure. (X to Y, Y to A, A to B and B to C)

∴ Raj's distance from the starting point
= XC = (XY - YC) = (XY - BA) = (80 - 70) m = 10m.



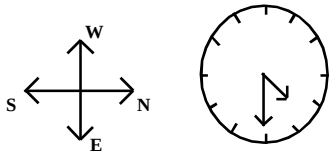
10. (3) The movements of the man are as shown in the figure. (P to B, B to C, C to D)
PC = (PB - BC) = (10 - 6) = 4 km.
Clearly D is to North-east of P.

∴ The man's distance from the starting point $PD = PC^2 + CD^2$
$= 4^2 + 3^2 = 16 + 9 = 5$ km.



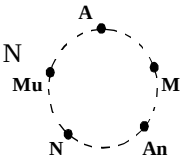
11. (4) Since Sumesh's shadow fell towards left, Sumesh is facing north. As, Ratheesh is standing with his back towards Sumesh, he will be facing south.

12. (4) Clearly to show 4.30, the position of the minute and hour hands of the clock will be as shown, if the minute hand points east, the hour hand will point to the North-east direction.

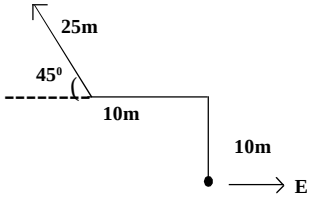


13. (1) D is to the right of E means the order is ED. B is on the left of E but right of A means ABE. D is to the left of C means DC. Combining the arrangements, we have ABEDC. So, A is to the extreme left.

14. (4) Ashish (A) is to the left of Milind (M) means that the order is A, M. Nithin N is to the right of Anupam (An) means An, N. So Nithin is between Anupam and Mukesh (Mu) means An, N, Mu. So the two possible arrangements are A, M, An, N, Mu and An, N, Mu, A, M. But in a cyclic arrangement both will be considered the same. So Ashish will be to the right of Mukesh.



15. (3) Clearly the route followed by Rajesh is as shown in figure. So matching his final direction with the direction diagram, he will be in North-west direction from the starting point.



PUZZLE TEST

This section comprises of questions put in the form of puzzles involving a certain number of items, be it persons or things. The candidate is required to analyse the given information, condense it in a suitable form and answer the questions asked.

Solved Example

Read the following information carefully and answer the questions given below:

There are five friends - Shailendra, Keshav, Madhav, Ashish and Rakesh. Shailendra is shorter than Keshav but taller than Rakesh. Madhav is the tallest. Ashish is a little shorter than Keshav and a little taller than Shailendra.

1. Who is the shortest?
   (1) Rakesh (2) Shailendra (3) Ashish
   (4) Keshav (5) None of these
2. If they stand in the order of their heights, who will be in the middle?
   (1) Keshav (2) Rakesh (3) Shailendra
   (4) Ashish (5) None of these
3. If they stand in the order of increasing heights, who will be the second?
   (1) Ashish (2) Shailendra (3) Rakesh
   (4) Keshav (5) None of these
4. Who is the second tallest?
   (1) Shailendra (2) Keshav (3) Ashish
   (4) Rakesh (5) None of these
5. Who is taller than Ashish but shorter than Madhav?
   (1) Rakesh (2) Keshav (3) Shailendra
   (4) Data inadequate (5) None of these

Ans: Let us denote the friends by the first letter of each name, namely S, K, M, A and R. It is given that Shailendra is shorter than Keshav but taller than Rakesh. Therefore R < S < K. Ashish is a little shorter than Keshav and a little taller than Shailendra ie S < A < K. Madhav is the tallest. From this we get R < S < A < K < M.

1. (1) Rakesh is the shortest.
2. (4) Ashish is in the middle.
3. (2) In the order of increasing heights, Shailendra is the second.
4. (2) Keshav is the second tallest.
5. (2) Keshav is taller than Ashish but shorter than Madhav.

Speed Developing Practice Test No. 9

Directions (Qs. 1-5): In a group of 5 persons A, B, C, D and E. B and C are intelligent in Mathematics and Geography. A and C are intelligent in Mathematics and History. B and D are intelligent in Political Science and Geography. D and E are intelligent in Political Science and Biology. E is intelligent in Biology, History and Political Science.

1. Who is intelligent in Political Science, Geography and Biology?
   (1) E (2) D (3) C (4) B (5) A
2. Who is intelligent in Mathematics, Political Science and Geography?
   (1) A (2) B (3) C (4) D (5) E
3. Who is intelligent in Mathematics and History but not in Geography?
   (1) C (2) E (3) A (4) B (5) D
4. Who is intelligent in Mathematics, Geography and History?
   (1) E (2) A (3) D (4) C (5) B
5. Who is intelligent in Political Science, History and Biology?
   (1) A (2) B (3) C (4) D (5) E

Directions (Qs. 6-10): Five friends A, B, C, D and E are sitting on a bench. A is sitting next to B, C is sitting next to D, D is not sitting near E, E is on the left end of the bench,. C is on second position from the right. A is on the right side of B and to the right side of E. A and C are sitting together.

6. Where is A sitting?
   (1) Between B and D (2) Between D and C
   (3) Between E and D (4) Between C and E
   (5) Between B and C

7. Who is sitting in the centre?
(1) A (2) B (3) C (4) D (5) E

8. C is sitting between
(1) B and D (2) A and E (3) D and E
(4) A and D (5) A and B

9. What is the position of D?
(1) Extreme left (2) Extreme right
(3) Third from left (4) Second from left
(5) None of these

10. What is the position of B?
(1) Second from right (2) Centre
(3) Extreme left (4) Second from left
(5) None of these

Directions (Qs. 11-15): Read the following information and answer questions 11 to 15

(i) Eight friends A, B, C, D, E, F, G, & H are sitting in a circle facing the centre

(ii) A, who is sitting immediately between G and C, is just opposite to F.

(iii) E, who is sitting immediately between 'H' and 'C' is second to the right of A and second to the left of F.

(iv) D is sitting second to the left of G.

11. Who are the three friends sitting immediately to the right of B?
(1) DFH (2) GAC (3) ACE
(4) Cannot be determined (5) None of these

12. Who is sitting between D and G?
(1) A (2) F (3) B
(4) Cannot be determined (5) None of these

13. Who are the immediate neighbours of D?
(1) B and F (2) F and H (3) B and G
(4) B and H (5) None of these

14. Who is sitting directly opposite to G?
(1) E (2) F (3) H
(4) Cannot be determined (5) None of these

15. Who is sitting directly opposite to C?
(1) D (2) F (3) B
(4) Cannot be determined (5) None of these

Directions (Qs. 16-20): P, Q, R, S, T and X are members of a family. There are two married couples. Q is an engineer and is father of T. X is grandfather of R and is a lawyer. S is grandmother of T and is a housewife. There is one engineer, one lawyer, one teacher one housewife and two students in the family.

16. Who is the husband of P?
(1) R (2) X (3) Q (4) S (5) T

17. Which of the following are the two married couples?
(1) XS, QP (2) XS, QT (3) XS, RP
(4) TS, RX (5) None of these

18. Which of the following is definitely a group of male members?
(1) Q, X, T (2) X, T (3) Q, X, P
(4) Q, X (5) None of these

19. Who is the sister of T?
(1) R (2) S (3) P
(4) Data inadequate (5) None of these

20. Which of the following can be P's profession?
(1) Housewife (2) Engineer (3) Teacher
(4) Engineer or Teacher (5)Housewife or Teacher

V **Directions (Qs. 21-25):** Six plays A, B, C, D, E and F are to be staged one on each day from Monday to Saturday. The schedule of the plays is to be in accordance with the following:

A must be staged a day before E. C must not be staged on Tuesday. B must be staged on the day following the day on which F is staged. D must be staged on Friday only and should not be immediately preceded by B. E must not be staged on the last day of the schedule.

21. Which of the following plays immediately follows B?
(1) A (2) C (3) D (4) E (5) F

22. Which of the following plays is on Monday?
(1) E (2) F (3) C (4) B (5) A

23. Play D is between which of the following pairs of plays?
(1) B and E (2) E and F (3) A and E
(4) C and E (5) C and F

24. Which of the following is the schedule of plays, with the order of their staging from Monday?
(1) E, A, B, F, D, C (2) A, F, B, E, D, C (3) A, F, B, C, D, E
(4) F, A, B, E, D, C (5) None of these

25. Play C cannot definitely be staged on which of the following days in addition to Tuesday?
(1) Monday (2) Wednesday (3) Friday
(4) Thursday (5) Saturday

Answers: Speed Developing Practice Test No. 9

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

Explanatory Answers: Speed Developing Practice Test No. 9

We can prepare a table from the given data as below:

	Maths	Geography	History	Political Science	Biology
A	✓	×	✓	×	×
B	✓	✓	×	✓	×
C	✓	✓	✓	×	×
D	×	✓	×	✓	✓
E	×	×	✓	✓	✓

1. (2) Clearly from the table D is intelligent in Political Science, Geography and Biology.
2. (2) B is intelligent in Mathematics, Political Science and Geography.
3. (3) A is intelligent in Mathematics and History but not in Geography.
4. (4) C is intelligent in Mathematics, History and Geography.
5. (5) E is intelligent in Political Science, History and Biology.

II C is sitting on the second position from right and A is sitting both with C and next to B. So A will be in the third position from right and B the on fourth position from right. E is on the left end of the bench. So D, who remains and who is sitting next to C will be on the right end. Thus the arrangement will be as shown.

E — B — A — C — D

6. (5) Clearly A is sitting between B and C.
7. (1) A is sitting in the centre.
8. (4) C is sitting between A and D.
9. (2) D is on the extreme right.
10. (4) B is second from the left.

III The seating arrangement is a shown in the fig.

11. (2) GAC are the three friends sitting immediate right of B.
12. (3) B is sitting between D and G.
13. (1) B and F are the immediate neighbours of D.
14. (3) H is sitting directly opposite to G.
15. (1) D is sitting directly opposite to C.

IV S is the grandmother of T and is a housewife. So X who is a lawyer and grandfather of R must be married to S. Thus R and T must be brother or sister and be the two students. Q who is an engineer and father of T will be father of T and R and must be married to P who shall be the only teacher in the family. Thus the questions can be answered as follows.

16. (3) Q is the husband of P.
17. (1) XS and QP are the two married couples.
18. (4) X and Q are definitely male members as they are grandfather and father.
19. (4) Nothing is mentioned about the sex of T and R. So, we cannot say if R is sister of T.
20. (3) Clearly P can be a teacher.

V Clearly, D must be staged on Friday. A must be staged before E i.e. order AE must be followed. But E cannot be staged on last day. Also, B must be staged immediately after F. i.e. order FB must be followed. But B cannot precede D. So F and B can be staged on Monday and Tuesday and A and E on Wednesday and Thursday. C, which cannot be staged on Tuesday shall be staged on Saturday. Thus the order followed will be

Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
F	B	A	E	D	C

21. (1) Clearly, A immediately follows B.
22. (2) F will be staged on Monday.
23. (4) Play D is between E and C.
24. (5) Clearly, if the order of staging is as given above, none from amongst the choices.
25. (3) C cannot be staged on Friday as well because D has to be staged on that day.

Mathematical Operations

This section deals with questions on simple mathematical operations. Here, the four fundamental operations - addition, subtraction, multiplication and division and also statements such as 'less than', 'greater than', 'equal to', 'not equal to' etc. are represented by symbols different from the usual ones. The questions involving these operations are set using artificial symbols. The candidate has to substitute the real signs and solve the questions accordingly, to get the answer.

Eg. 1.If + means ÷, - means ×, ÷ means +, and × means —— then 48 + 12 ÷ 15 × 2 - 5 = ?

(1) 8 (2) 18 (3) 9 (4) 3 (5) None of these

Ans: Putting the proper signs in the given expression, we get

$48 \div 12 + 15 - 2 \times 5 = 4 + 15 - 10 = 9$

Hence the answer is (3)

Speed Developing Practice Test No. 10

1. If - means ×, × means +, + means ÷ and ÷ means -, what will be the value of $40 \times 12 + 3 - 6 \div 60 = ?$
   (1) 44 (2) 7.95(3) 16 (4) 8 (5) None of these
2. If + means ÷, ÷ means -, - means × and × means + $36 \times 12 + 3 \div 5 - 2$ is
   (1) 85 (2) 22 (3) 30 (4) 9 (5) None of these
3. If + means ÷ , ÷ means -, - means × and × means +, what will be the value of the following expression?
   $75 + 5 \times 3 - 4 \div 6$
   (1) 20 (2) 21 (3) 25 (4) 12.5(5) None of these
4. ÷ means +, × means -, + means × and - means ÷ then $15 - 5 + 2 \times 3 \div 2 = ?$
   (1) 36 (2) 13 (3) 5 (4) 4 (5) None of these
5. + means ÷, × means -, ÷ means × and - means +. Then $5 - 12 + 2 \times 3 \div 3 = ?$
   (1) 22 (2) 32 (3) 15.9(4) 2 (5) None of these
6. If P denotes +, Q denotes -, M denotes × and L denotes ÷, which of the following statements is true?
   (1) 32P8 L16Q4 = $\frac{-3}{2}$ (2)6M18Q26L13P7 = $\frac{173}{13}$
   (3) 11 M34L17Q8L3 = $\frac{38}{3}$ (4) 9P9 L9Q9M9 = - 71
7. *a* denotes ×, *b* denotes ÷, *c* denotes + and *d* denotes - then 8*a*3*c*24*b*12*d*19 = ?
   (1) 70 (2) 7 (3) 14 (4) 31 (5) None of these
8. If + stands for divison, - stands for equal to, × stands for addition, ÷ stands for greater than, = stands for less than, > stands for multiplication and < stands for subtraction, which of the following alternatives is correct?
   (1) $5 + 2 \times 1 = 3 + 4 > 1$ (2) $5 > 2 \times 1 - 3 > 4 < 1$
   (3) $5 \times 2 < 1 - 3 < 4 \times 1$ (4) $5 < 2 \times 1 + 3 > 4 \times 1$
9. $ means -, * means +, @ means ÷, # means ×, then $3 \# 5 * 63 @ 7 \$ 12 = ?$
   (1) 52 (2) 22 (3) 12
   (4) 1 (5) None of these
10. M denotes ×, D denotes ÷, A denotes + , S denotes - Then 25S72D12A1M6 is
    (1) 25 (2) 20 (3) 35
    (4) 2 (5) None of these

Answers: Speed Developing Practice Test No. 10

1. (5) 2. (3) 3. (2) 4. (3) 5. (4) 6. (4) 7. (2) 8. (2) 9. (3) 10. (1)

Explanatory Answers: Speed Developing Practice Test No. 10

1. (5) From the given expression $40 + 12 \div 3 \times 6 - 60 = 40 + 4 \times 6 - 60 = 40 + 24 - 60 = 4$
2. (3) From the given expression $36 + 12 \div 3 - 5 \times 2 = 30$
3. (2) From the given expression $75 \div 5 + 3 \times 4 - 6 = 15 + 12 - 6 = 21$
4. (3) From the given expression $15 \div 5 \times 2 - 3 + 2 = 3 \times 2 - 3 + 2 = 6 - 3 + 2 = 5$
5. (4) From the given expression $5 + 12 \div 2 - 3 \times 3 = 5 + 6 - 9 = 2$
6. (4) Using proper notations in (4) we get the statement as $9 + 9 \div 9 - 9 \times 9 = 9 + 1 - 81 = -71$
7. (2) From the given expression $8 \times 3 + 24 \div 12 - 19 = 24 + 2 - 19 = 7$
8. (2) Using proper notations in (2), we get the statement as $5 \times 2 + 1 = 3 \times 4 - 1$ or $11 = 11$ which is true.
9. (3) From the given expression $3 \times 5 + 63 \div 7 - 12 = 15 + 9 - 12 = 12$
10. (1) From the given expression $25 - 72 \div 12 + 1 \times 6 = 25$

ALPHABET TEST

In this type of questions, certain words will be given. The candidate is required to put them in the order in which they would be arranged in a dictionary and then state the word which is placed in the desired place. For such questions, the candidate requires a basic knowledge of the 'Dictionary Usage'. In a dictionary, the words are put in alphabetical order. The words beginning with a particular letter are again arranged in alphabetical order with respect to the second letter of the word and so on.

Eg. 1. Arrange the given words in alphabetical order and pick the one that comes first.
(1) Cloud (2) Middle (3) Grunt
(4) Mob (5) Chain

These words can be properly arranged as Chain, Cloud, Grunt, Middle, Mob. Clearly the first word is Chain. Hence the answer is (5)

Eg. 2. In the word 'PARADISE', how many pairs of letters are there which have as many letters between them in the word as in the alphabet.
(1) One (2) Three (3) Four
(4) Two (5) None

Such pairs are PRAE and AD. So the answer is (2).

Speed Developing Practice Test No. 11

1. Arrange the given words in alphabetical order and pick the one that comes last
(1) Abandon (2) Actuate (3) Accumulate
(4) Acquit (5) Achieve
2. Arrange the words in alphabetical order and pick the one that comes second.
(1) Explosion (2) Emergency (3) Ecstasy
(4) Eager (5) Entomology
3. Arrange the words in the alphabetical order and pick the one that comes second last
(1) Brook (2) Bandit (3) Boisterous
(4) Baffle (5) Bright

Directions (Qs. 4 - 7): Arrange the given words in alphabetical order and choose the one that comes first.

4. (1) Nature (2) Native (3) Narrate
(4) Nascent (5) Naughty
5. (1) Guarantee (2) Group (3) Grotesque
(4) Guard (5) Groan
6. (1) Science (2) Scrutiny (3) Scripture
(4) Scramble (5) Script
7. (1) Slander (2) Skeleton (3) Stimulate
(4) Similar (5) Summary

Directions (Qs. 8 -11): Arrange the given words in the alphabetical order and pick the one that comes in the middle.

8. (1) Radical (2) Radiate (3) Racket
(4) Radius (5) Radar
9. (1) Alive (2) Afforest (3) Anticipate
(4) Appreciate (5) Achieve
10. (1) Parasite (2) Party (3) Petal
(4) Paste (5) Prick
11. (1) Signature (2) Significance (3) Sight
(4) Sigh (5) Sieve
12. How many pairs of letters are there in the word 'HORIZON' which have as many letters between them in the word as in the English alphabet?
(1) One (2) Two (3) Three
(4) More than 3 (5) None of these
13. If the first and the third letters in the word NECESSARY were interchanged, also the fourth and the sixth letters, and the seventh and the ninth letters, which of the following would be the 7th letter from the left?
(1) A (2) Y (3) R (4) E (5) S
14. If it is possible to make a meaningful word with the second, the sixth, the ninth and the twelfth letters of the word 'CONTRIBUTION', which of the following will be the last letter of that word? If more than one such words can be made give M as the answer and if no such word is there, give X as the answer.
(1) T (2) O (3) N (4) M (5) X

Directions (Qs. 15-20): Each of the following questions is based on the following alphabet series

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

15. Which letter is sixteenth to the right of the letter which is fourth to the left of I?
(1) S (2) T (3) U (4) V (5) None of these
16. Which letter is the seventh to the right of the thirteenth letter from your left?
(1) S (2) T (3) U (4) V (5) None of these

17. If the first half of the alphabet was written in the reverse order, which letter would be the nineteenth from your right?
(1) H (2) F (3) D (4) E (5) None of these
18. Which letter will be sixth to the right of the eleventh letter from the right end of the alphabet?
(1) K (2) V (3) J (4) U (5) None of these
19. If the above letters were in the reverse order, which will be the fifth letter to the left of the ninth letter from the right?
(1) P (2) N (3) D (4) W (5) None of these
20. Which letter will be midway between the fifteenth letter from the left and eighteenth letter from the right end?
(1) H (2) K (3) G (4) L (5) None of these

Answers: Speed Developing Practice Test No. 11

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

Explanatory Answers:
Speed Developing Practice Test No. 11

12. (4) Such letter pairs are RO, ON, RN and HN
13. (2) The new letter sequence is CENSSEYRA. So from the left 7th letter is Y.
14. (2) The second, sixth, ninth and twelfth letters in the word contribution are O, I, T, N. The word formed is INTO.
15. (3) The fourth letter to the left of I is E. Then the sixteenth letter to the right of E is U.
16. (2) The thirteenth letter from the left is M. The seventh letter to the right of M is T.
17. (2) The new alphabet series is

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

Counting from the right i.e. Z, the nineteenth letter is F.

18. (2) Counting from the right in the given alphabet series i.e. Z, the eleventh letter is P. The sixth letter to the right of P is V.
19. (2) The fifth letter to the ninth letter from the left means 14th letter from the right, i.e. N.
20. (4) The fifteenth letter from the left is O. The eighteenth letter from the right is I. The letter midway between I and O is L.

NUMBER, RANKING TEST

Number Test

In this catagory of questions, generally a long series of numbers is given. The candidate is required to find out how many times a number satisfying the condition specified in the question will occur.

E.g. 1. How many 9's are there in the following number sequence which are immediately preceded by 5 but not immediately followed by 3 ?

3 9 5 9 4 5 9 3 7 9 8 5 9 9 8 7 9 5 1 9 6 5 9 4 3 9 5 9 3 8

(1) One (2) Two (3) Three
(4) Four (5) More than four

The numbers satisfying the given conditions can be shown as follows.

3 9 5 [9] 4 5 9 3 7 9 8 5 [9] 9 8 7 9 5 1 9 6 5 [9] 4 3 9 5 9 3 8.

So, the answer is (3)

Ranking Test: In this, generally the ranks of a person both from the top and from the bottom will be mentioned and the total number of persons is to be found.

E.g. 2. Radha ranks twentyfirst from the top and twentieth from the bottom in a certain examination. How many students are there in her class?

(1) 40 (2) 41 (3) 42
(4) 45 (5) None of these

Clearly the whole class consists of

(i) 20 students who have a rank higher than Radha
(ii) Radha
(iii) 19 students who have rank lower than Radha

i.e. (20 + 1 + 19) = 40. So, the answer is (1)

Speed Developing Practice Test No. 12

1. How many 9s are there in the following number sequence which are immediately preceded by 7 and also immediately followed by 8 ?

   7 9 7 2 3 7 9 8 6 5 7 9 8 2 8 8 9 7 4 9 7 8 8 8

   (1) 1 (2) 2 (3) 3
   (4) 4 (5) None of these

2. How many 6s are there in the following number series which are immediately either preceded by 4 or followed by 7 ?

   3 1 2 9 6 4 7 6 4 6 7 2 9 7 6 4 4 6 7

   (1) One (2) Two (3) Three
   (4) Four (5) Five

3. In the following series of numbers how many times have the numbers 9, 1 and 8 appeared together, 1 in the middle and 9 and 8 being on either side of 1?

   2 1 9 8 1 9 8 3 7 1 9 7 8 1 2 9 1 9 8 1 8 2 1 2

   (1) One (2) Six (3) Three
   (4) Four (5) None of these

4. How many 1s are there in the following sequence which are immediately preceded by 9 but not immediately followed by 7 ?

   7 1 9 1 1 7 1 8 9 1 7 1 2 1 3 1 4 5 7 1 3 9 1 7

   (1) One (2) Two (3) Three
   (4) Four (5) None of these

5. How many 7s 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

   (1) One (2) Two (3) Four
   (4) Six (5) None of these

6. In the given series how many instances are there in which an even number is followed by two odd numbers?

   1 8 5 7 2 9 8 4 3 6 2 7 5 1 8 9 4 3 6 5 9

   (1) Nil (2) One (3) Two
   (4) Three (5) None of these

7. Ajay's position in a row is thirteenth from the front side and sixth from the back side. How many persons are standing in that row?

   (1) 17 (2) 18 (3) 19
   (4) 20 (5) 21

8. Ratan ranked 8th from the top and 37th from the bottom in a class. How many students are there in the class?

   (1) 44 (2) 46 (3) 45
   (4) 48 (5) None of these

9. In a row of boys Ganesh is twelfth from left and Rajan is fifteenth from right. When they interchange their positions, Rajan becomes twentieth from right. How many boys are there in the row?
(1) 29 (2) 31 (3) 32
(4) 30 (5) None of these

10. In a row of 16 boys when Ram was shifted by two places towards left, he became 7th from the left end. What was his earlier position from the right end of the row?
(1) 7th (2) 8th (3) 9th
(4) 10th (5) None of these

11. Hari ranks sixteenth in a class of thirty. What is his rank from the last?
(1) 13 (2) 15 (3) 16
(4) 17 (5) None of these

12. The Managing Director entered the conference room ten minutes before 12.30 hrs for interviewing. He came 20 minutes before the Chairman who was 30 minutes late. At what time, were the interviews scheduled?
(1) 12.50 (2) 12.40 (3) 12.20
(4) 12.10 (5) 12.50

13. A bus for Bangalore leaves every thirty minutes from a bustand. An enquiry clerk told a passanger that a bus had already left ten minutes ago and the next bus will leave at 9.35 am. At what time did the enquiry clerk give this information to the passenger?
(1) 9.10 am (2) 8.55 am (3) 9.08 am
(4) 9.05 am (5) 9.15 am

14. How many days will there be from 26th January, 1988 to 15th May 1988 ? (both days included)
(1) 110 (2) 111 (3) 112
(4) 113 (5) None of these

15. Raji remembers that Latha's birthday is after 19th but before 22nd November, whereas Deepthi remembers that Latha's birthday is after 20th but before 24th November. On which day is Latha's birthday?
(1) 20thNovember (2) 21st November
(3) 22nd November (4) 23rd November
(5) None of these

Answers: Speed Developing Practice Test No. 12

1. (2) 2. (2) 3. (1) 4. (1) 5. (2) 6. (4) 7. (2) 8. (1) 9. (2) 10. (2)
11. (2) 12. (4) 13. (5) 14. (2) 15. (2)

Explanatory Answers:
Speed Developing Practice Test No. 12

1. (2) 7 9 7 2 3 7 [9] 8 6 5 7 [9] 8 2 8 8 9 7 4 9 7 8 8 8
2. (4) 3 1 2 9 6 4 7 6 4 [6] 7 2 9 7 [6] 4 4 7
3. (1) 2 1 9 8 [1] 9 8 3 7 1 9 7 8 1 2 9 1 9 8 1 8 2 1 2
4. (1) 7 1 9 [1] 1 7 1 8 9 1 7 1 2 1 3 1 4 5 7 1 3 9 1 7
5. (2) 7 4 2 7 6 4 3 6 [7] 5 5 3 5 7 8 4 3 7 6 [7] 2 4 0 6 7 4 3
6. (4) 1 [8] 5 7 2 9 8 4 3 6 [2] 7 5 1 8 9 4 3 [6] 5 9
7. (2) Number of persons in that row = 12 + 1+5 = 18
8. (1) Number of students in the class =7+1+36 = 44
9. (2) After interchanging Rajan becomes twentieth from right i.e. earlier Ganesh was twentieth from right and twelfth from left. So the number of boys in the row = 11 + 1 + 19 = 31
10. (2) After shifting Ram becomes 7th from left means his earlier position was 9th from left i.e. 16 - 9 + 1 = 8th from right.
11. (2) Hari's rank from the last = 30 - 16 + 1 = 15
12. (4) Clearly the Managing Director came at 12.20. Thus the Chairman came at 12.40. Since the Chairman was late by 30 minutes, the interviews were scheduled to be held at 12.10.
13. (5) The bus will leave 20 minutes after the clerk gives the information to the passanger and at 9.35 a.m. He gave the information 20 minutes before 9.35 a.m. i.e. at 9.15 a.m.
14. (2) Number of days = (6 + 29 + 31 + 30 + 15) = 111. Since 1988 is a leap years, the number of days in February = 29.
15. (2) According to Raji, Latha's birthday is on one of the days among 20th and 21st November. According to Deepti, Latha's birthday is on one of the days among 21st, 22nd and 23rd November. The day common to both the groups is 21st November.
∴ Latha's birthday is on 21st November.

Number Locating Test

Here, a group of digits are given the candidates are asked to arrange the order of numbers according to descending/ ascending order and find out how many numbers are there in the arrangement that satisfy the condition specified in the question.

Solved Example

1. If the digits of the number 597841 are arranged in descending order, how many digits will be as far away from the beginning of the number as they are in the number ?

   (1) None (2) One (3) Two
   (4) Three (5) More than three

   Ans : (4)

   5 9 7 8 4 1
   9 8 7 5 4 1

Number Sequance Test

In some cases, more than one group of numbers are given which is followed by 4 or 5 questions.

Solved Example

I These questions are based on the following 5 numbers.

479 637 854 285 769

1. If in each number the first and the third digits are interchanged, then which number will be the largest ?

   (1) 479 (2) 637 (3) 854
   (4) 285 (5) 769

2. If all the numbers are arranged in ascending order what will be the difference between the first digit of first number and third digit of third number ?

   (1) 4 (2) 8 (3) 5
   (4) 2 (5) None of these

3. If in each number the first and second digits are interchanged then which number will be the largest?

   (1) 479 (2) 637 (3) 854
   (4) 285 (5) 769

4. If 1 is added to the middle digit of each number and then the numbers are arranged in descending order, what will be the sum of the digits of fourth newly formed number ?

   (1) 22 (2) 21 (3) 23
   (4) 20 (5) None of these

5. If in each number first digit is replaced by the third digit, the third digit is replaced by the second digit and second digit is replaced by the first digit then which number will be the smallest ?

   (1) 285 (2) 479 (3) 769
   (4) 637 (5) 854

ANSWERS

1. **Ans : (1)**

   $479 \Rightarrow 974$; $637 \Rightarrow 736$

   $854 \Rightarrow 458$; $285 \Rightarrow 582$

   $769 \Rightarrow 967$

   Largest number = $974 \Rightarrow 479$

2. **Ans : (3)**

   $\underline{285} < 479 < \underline{637} < 769 < 854$

   $7 - 2 = 5$

3. **Ans : (4)**

   $479 \Rightarrow 749$; $637 \Rightarrow 367$

   $854 \Rightarrow 584$; $\underline{285} \Rightarrow 825$

   $769 \Rightarrow 679$

   Largest number = $825 \Rightarrow 285$

4. **Ans : (2)**

   $479 \Rightarrow 489$; $637 \Rightarrow 647$

   $854 \Rightarrow 864$; $285 \Rightarrow 295$

   $769 \Rightarrow 779$

   $864 > 779 > 647 > \underline{489} > 295$

   $4 + 8 + 9 \Rightarrow \underline{21}$

5. **Ans : (5)**

   $479 \Rightarrow 947$; $637 \Rightarrow 763$

   $854 \Rightarrow 485$; $285 \Rightarrow 528$

   $769 \Rightarrow 976$

   Smallest number = $485 \Rightarrow 854$

Exercise

1. How many such digits are there in the number 5 2 3 6 1 9 8 4 each of which is as far away from the beginning of the numbers as when the digits are rearranged ascending order within the number ?
   (1) None (2) One (3) Two
   (4) Three (5) More than three
2. The positions of how many digits in the number will remain same after the digits within the number 8 2 6 1 4 7 9 are rearranged in ascending order?
   (1) None (2) One (3) Two
   (4) Three (5) More than three
3. How many such digits are there in the number 7 6 4 5 2 8 each of which is as far away from the beginning of the number as when the digits are arranged in descending order within the number?
   (1) None (2) One (3) Two
   (4) Three (5) More than three
4. How many such pair of digits are there in the number 4 2 1 5 7 9 3 6 8 each of which has as many digits between them in the number as when they are arranged in ascending order ?
   (1) None (2) One (3) Two
   (4) Three (5) More than three
5. In the case of how many digits in the number 2 13 8 5 7 4, their positions in the number and the positions when the digits of the number are arranged in the ascending order are identical ?
   (1) Nil (2) Four (3) Three
   (4) Two (5) None of these

ANSWERS

1. **Ans : (4)**

   5 2 3 6 1 9 8 4
   1 2 3 4 5 6 8 9

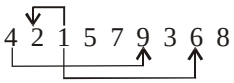
2. **Ans : (3)**

   8 2 6 1 4 7 9
   1 2 4 6 7 8 9

3. **Ans : (2)**

   7 6 4 5 2 8
   8 7 6 5 4 2

4. **Ans : (4)**



5. **Ans. (3)**

   2 1 3 8 5 7 4
   1 2 3 4 5 7 8

PRACTICE TEST

I. Direction (1-4) : Following questions are based on the five three digit numbers given below :

472 487 348 728 845

1. If the positions of the first and the third digits in each number are interchanged, which of the following will be middle digit of the highest number?
   (1) 4 (2) 8 (3) 7
   (4) 2 (5) 3
2. Which of the following will be the sum total of the three digits of the third lowest number among them ?
   (1) 13 (2) 19 (3) 15
   (4) 17 (5) 14
3. Which of the following will be the middle digit of the highest number ?
   (1) 7 (2) 3 (3) 2
   (4) 8 (5) 4
4. If the positions of the first and the last digits within each number are interchanged, which of the following will be second digit of the second largest number ?
   (1) 8 (2) 4 (3) 3
   (4) 5 (5) 2

II. Directions (5-9) : Study the sets of numbers given below and answer the qustions ; which follow :

972 682 189 298 751

5. If one is added to the lowest number and two is added to the highest number, what will be the difference between the second digit of the

smallest number and third digit of the highest number ?

(1) 5 (2) 7 (3) 9
(4) 8 (5) None of these

6. If in each number, first and the last digits are interchanged, which of the following will be the third highest number ?

(1) 972 (2) 682 (3) 189
(4) 298 (5) 751

7. If in each number, all the three digits are arranged in descending order, which of the following will be the third highest number ?

(1) 972 (2) 682 (3) 189
(4) 298 (5) 751

8. If in each number, second and the third digits are interchanged, what will be the sum of first digit of the smallest number and last digit of highest number ?

(1) 7 (2) 6 (3) 9
(4) 8 (5) None of these

9. If one is added to the smaller odd number and one is subtracted from the higher odd number, which of the following will be obtained if the second digit of the higher number is subtracted from the second digit of the lower number so formed?

(1) 6 (2) 5 (3) 4
(4) 3 (5) 2

III. Direction (10 -14) : Study the sets of numbers given below and answer the questions, which follow.

489 541 654 953 783

10. If in each number, all the three digits are arranged in ascending order, which of the following will be the lowest number ?

(1) 489 (2) 541 (3) 654
(4) 953 (5) 783

11. If five is subtracted from each of the numbers, which of the following numbers will be difference between the second digit of second highest number and the second digit of the highest number?

(1) Zero (2) 3 (3) 1
(4) 4 (5) 2

12. If in each number the first and second digits are interchanged, which will be the third highest number ?

(1) 489 (2) 541 (3) 654
(4) 953 (5) 783

13. Which of the following number will be obtained if the first digit of lowest number is subtracted from the second digit of highest number after adding one to each of the numbers ?

(1) 1 (2) 2 (3) 3
(4) 4 (5) 5

14. If in each number, the first and the last digits are interchanged, which of the following will be the second highest number ?

(1) 489 (2) 541 (3) 654
(4) 953 (5) 783

IV. Direction (15-19) : These questions are based on following set of numbers

319 869 742 593 268

15. If in each number the first and third digits are interchanged then which number will be the highest ?

(1) 319 (2) 869 (3) 742
(4) 593 (5) 268

16. If one is subtracted from the first and third digits of each of the numbers, what will be the difference between the first digit of the highest number and the first digit of the lowest number ?

(1) 2 (2) 3 (3) 4
(4) 5 (5) None of these

17. If in each number all the digits are arranged in ascending order, which number will be second lowest ?

(1) 319 (2) 869 (3) 742
(4) 593 (5) 268

18. If in each number first digit is replaced by the third digit, second digit is replaced by the first digit and third digit is replaced by the second digit, then which number will be the second highest ?

(1) 319 (2) 869 (3) 742
(4) 593 (5) 268

19. If all the numbers are arranged in descending order, what will be the difference between the second

digit of third number and third digit of second number ?

(1) 5 (2) 9 (3) 6
(4) 7 (5) None of these

V. Directions (20-25) : These questions are based on the following six numbers.

382 473 568 728 847 629

20. If the second and the third digits of each number are interchanged, which number will be third lowest ?

(1) 629 (2) 382 (3) 473
(4) 568 (5) None of these

21. If the first and the third digits of each number are interchanged, which number will be the third highest ?

(1) 473 (2) 728 (3) 847
(4) 629 (5) None of these

22. If the first and second digits of each number are interchanged, which number will be second highest ?

(1) 568 (2) 473 (3) 847
(4) 382 (5) None of these

23. If 382 is written as 238, 473 as 347 and so on, then which of the following number will have least difference between them ?

(1) 473 & 382 (2) 629 & 728
(3) 629 & 568 (4) 728 & 847
(5) 629 & 847

24. If the first and the third digits of each number are interchanged and one is added to the second digit of each number then which of the following pairs of numbers will have highest total of their numerical value ?

(1) 847 & 629 (2) 568 & 728
(3) 728 & 847 (3) 568 & 847
(5) 629 & 473

25. If the first digit of each number replaces the third digit of that number, third digit replaces the second digit and the second digit replaces the first digit, and then the numbers thus formed are arranged in the descending order, then which number will be the third ?

(1) 568 (2) 382 (3) 473
(4) 847 (5) None of these

ANSWERS

1. **Ans : (1)**
$472 \Rightarrow 274$ $487 \Rightarrow 784$
$348 \Rightarrow \underline{843}$ $728 \Rightarrow 827$
$845 \Rightarrow 548$

2. **Ans : (2)**
Third lowest number $\Rightarrow 487$
$4 + 8 + 7 = 19$

3. **Ans : (5)**
Highest number $\Rightarrow$ 845

4. **Ans : (5)**
$472 \Rightarrow 274$ $487 \Rightarrow 784$
$348 \Rightarrow 843$ $728 \Rightarrow 827$
$845 \Rightarrow 548$
Second largest number $\Rightarrow 8\boxed{2}7$

5. **Ans : (1)**
$189 + 1 = 190$
$972 + 2 = 974$
$9 - 4 = 5$

6. **Ans : (2)**
$972 \Rightarrow 279$; $682 \Rightarrow 286$
$189 \Rightarrow 981$; $298 \Rightarrow 892$
$751 \Rightarrow 157$
Third highest number = $286 \Rightarrow 682$

7. **Ans : (1)**
$972 \Rightarrow 972$; $682 \Rightarrow 862$
$189 \Rightarrow 981$; $298 \Rightarrow 982$
$751 \Rightarrow 751$

8. **Ans : (4)**
$972 \Rightarrow 927$; $682 \Rightarrow 628$
$189 \Rightarrow 198$; $298 \Rightarrow 289$
$751 \Rightarrow 715$

9. **Ans : (3)**
$189 + 1 = 190$
$751 - 1 = 750$
$9 - 5 = 4$

10. **Ans : (2)**
$489 \Rightarrow 489$; $541 \Rightarrow 145$;
$654 \Rightarrow 456$; $953 \Rightarrow 359$; $783 \Rightarrow 378$
Lowest number $\Rightarrow 145 \Rightarrow 541$

11. **Ans : (2)**
489 - 5 $\Rightarrow$ 484 ; 541 - 5 $\Rightarrow$ 536
654 - 5 $\Rightarrow$ 649 ; 953 - 5 $\Rightarrow$ 948
783 - 5 $\Rightarrow$ 778
Second highest number = 778
Highest number = 948
7 - 4 = 3

12. **Ans : (4)**
489 $\Rightarrow$ 849 ; 541 $\Rightarrow$ 451; 654 $\Rightarrow$ 564;
953 $\Rightarrow$ 593 ; 783 $\Rightarrow$ 873
Third highest number = 593 $\Rightarrow$ 953

13. **Ans : (1)**
489 + 1 $\Rightarrow$ 490; 541+1 = 542
654 +1 $\Rightarrow$ 655; 953 + 1= 954;
783 + 1 $\Rightarrow$ 784
5 - 4 = 1

14. **Ans : (3)**
489 $\Rightarrow$ 984; 541 $\Rightarrow$ 145
654 $\Rightarrow$ 456; 953 $\Rightarrow$ 359
783 $\Rightarrow$ 387
Second highest number = 456 $\Rightarrow$ 654

15. **Ans : (2)**
319 $\Rightarrow$ 913; 869 $\Rightarrow$ 968;
742 $\Rightarrow$ 247; 593 $\Rightarrow$ 395;
268 $\Rightarrow$ 862

16. **Ans : (5)**
319 $\Rightarrow$ 218; 869 $\Rightarrow$ 768; 742 $\Rightarrow$ 641;
593 $\Rightarrow$ 492; 268 $\Rightarrow$ 167
7 - 1 = 6
Highest Number $\Rightarrow$ $\boxed{7}$6 8
Lowest Number $\Rightarrow$ $\boxed{1}$6 7

17. **Ans : (3)**
319 $\Rightarrow$ 139; 869 $\Rightarrow$ 689; 742 $\Rightarrow$ 247;
593 $\Rightarrow$ 359; 268 $\Rightarrow$ 268
Second lowest number $\Rightarrow$ 247 $\Rightarrow$ 742

18. **Ans : (1)**
319 $\Rightarrow$ 931; 869 $\Rightarrow$ 986; 742 $\Rightarrow$ 274
593 $\Rightarrow$ 359; 268 $\Rightarrow$ 826
Second highest number $\Rightarrow$ 931 $\Rightarrow$ 319

19. **Ans : (4)**
869 > 742 > 593 > 319 > 268
9 - 2 = 7

20. **Ans : (4)**
382 $\Rightarrow$ 328; 473 $\Rightarrow$ 437; 568 $\Rightarrow$ 586;
728 $\Rightarrow$ 782; 847 $\Rightarrow$ 874; 629 $\Rightarrow$ 692;
Third lowest number $\Rightarrow$ 586 $\Rightarrow$ 568

21. **Ans : (2)**
382 $\Rightarrow$ 283; 473 $\Rightarrow$ 374; 568 $\Rightarrow$ 865;
728 $\Rightarrow$ 827; 847 $\Rightarrow$ 748; 629 $\Rightarrow$ 926
Third highest number $\Rightarrow$ 827 $\Rightarrow$ 728

22. **Ans : (2)**
382 $\Rightarrow$ 832; 473 $\Rightarrow$ 743; 568 $\Rightarrow$ 658;
728 $\Rightarrow$ 278; 847 $\Rightarrow$ 487; 629 $\Rightarrow$ 269
Second highest number $\Rightarrow$ 743 $\Rightarrow$ 473

23. **Ans : (4)**
382 $\Rightarrow$ 238; 473 $\Rightarrow$ 347; 568 $\Rightarrow$ 856;
728 $\Rightarrow$ 872; 847 $\Rightarrow$ 784; 629 $\Rightarrow$ 962
(1) 473 & 382 $\Rightarrow$ 347 - 238 = 109
(2) 629 & 728 $\Rightarrow$ 962 - 872 = 90
(3) 629 & 568 $\Rightarrow$ 962 - 856 = 106
(4) $\boxed{728 \text{ \& } 847}$ $\Rightarrow$ $\boxed{872 - 784 = 88}$
(5) 629 & 847 $\Rightarrow$ 962 - 784 = 178

24. **Ans : (2)**
(1) 847 & 629 $\Rightarrow$ 758 + 936 = 1694
(2) $\boxed{568 \text{ \& } 728}$ $\Rightarrow$ $\boxed{875 + 837 = 1712}$
(3) 728 & 847 $\Rightarrow$ 837 + 758 = 1595
(4) 568 & 847 $\Rightarrow$ 875 + 758 = 1633
(5) 629 & 473 $\Rightarrow$ 936 + 384 = 1320

25. **Ans : (1)**
382 $\Rightarrow$ 823; 473 $\Rightarrow$ 734; 568 $\Rightarrow$ 685
728 $\Rightarrow$ 287; 847 $\Rightarrow$ 478; 629 $\Rightarrow$ 296
823 > 734 > $\boxed{685}$ > 478 > 296 > 287

BLOOD RELATIONSHIP

In this test, the success of a candidate depends upon the knowledge of the blood relations, some of which are summarised below to help you solve these tests

Mother's or father's son	- Brother
Mother's or father's daughter	- Sister
Mother's or father's brother	- Uncle
Mother's or father's sister	- Aunt
Mother's or father's mother	- Grandmother
Mother's or father's father	- Grandfather
Son's wife	- Daughter-in-law
Daughter's husband	- Son-in-law
Husband's or wife's brother	- Brother-in-law
Sister's or brother's son	- Nephew
Brother's or Sister'sdaughter	- Niece
Uncle's or aunt's son or daughter	- Cousin
Sister's husband	- Brother-in-law
Brother's wife	- Sister-in-law

Eg. Pointing to a man in a photograph, a woman said "His brother's father is the only son of my grandfather". How is the woman related to the man in the photograph?

(1) Mother (2) Aunt (3) Sister
(4) Daughter (5) Grandmother

The relation may be seen as follows.

The only son of the woman's grandfather-woman's father. Man's brother's father-Man's father. So the woman is the Man's sister.

Speed Developing Practice Test No. 13

1. Introducing a girl, Santhosh said, "Her mother is the only daughter of my mother-in-law". How is Santhosh related to the girl?
   (1) Uncle (2) Husband (3) Brother
   (4) Father (5) None of these
2. Pointing to a lady a man said, "the son of her only brother is the brother of my wife". How is the lady related to the man?
   (1) Mother's sister (2) Grandmother
   (3) Mother-in-law
   (4) Sister of the Man's father-in-law
   (5) None of these
3. Pointing to an old man, Kailas said, "his son is my son's uncle". How is the old man related to Kailas?
   (1) Brother (2) Uncle (3) Father
   (4) Grandfather (5) None of these
4. When Manoj saw Ashok, he recalled, he is the son of the father of the mother of his daughter. What is Ashok to Manoj?
   (1) Brother-in-law (2) Brother (3) Cousin
   (4) Uncle (5) Nephew
5. Pointing to a lady on the platform Geetha said, "she is the sister of the father of my mother's son". What is the lady to Geetha?
   (1) Mother (2) Sister (3) Aunt
   (4) Niece (5) None of these
6. Pointing to a lady a girl said, "she is the only daughter- in-law of the grandmother of my father's son". How is the lady related to the girl?
   (1) Sister-in-law (2) Mother (3) Niece
   (4) Mother-in-law (5) Cousin
7. Showing a lady in the park, Balu said, "she is the daughter of my grandmother's only son". How is Balu related to that lady?
   (1) Brother (2) Cousin (3) Father
   (4) Uncle (5) None of these
8. Lakshmi and Girija are Gopal's wives. Shalini is Girija's step-daughter. How is Lakshmi related to Shalini?
   (1) Sister (2) Mother-in-law (3) Mother
   (4) Step-mother (5) None of these
9. Showing the man receiving the prize Seema said, "he is the brother of my uncle's daughter". What is the man to Seema?
   (1) Son (2) Brother-in-law
   (3) Nephew (4) Uncle (5) Cousin
10. Introducing a man a woman said, "he is the only son of my mother's mother". How is the woman related to the man?
    (1) Mother (2) Aunt (3) Sister
    (4) Niece (5) None of these

Directions (Qs. 11-13): Read the following information and answer the questions given below:

A + B means A is the daughter of B
A × B means A is the son of B
A - B means A is the wife of B

11. If P × Q - S, which of the following is true?
    (1) S is the wife of Q (2) S is father of P
    (3) P is daughter of Q (4) Q is father of P
    (5) None of these
12. If T - S × B -M, which of the following is not true?
    (1) B is mother of S (2) M is husband of B
    (3) S is daughter of B (4) T is wife of S
    (5) None of these
13. If Z × T - S × U + P, what is U to Z?
    (1) Mother (2) Grandmother
    (3) Father (4) Can't be determined
    (5) None of these
14. If A★B means A is the sister of B, A ∇ B means A is the father of B, A ∈ B means A is the brother of B, which of the following means X is the aunt of Y?
    (1) X★D ∇ Y (2) A ∇ D ∈ Y (3)X ∇ D★Y
    (4) X ∈ D ∇ Y (5) None of these
15. If A + B means A is the sister of B, A - B means A is the brother of B, A × B means A is the daughter of B, which of the following shows the relation that E is the maternal uncle of D?
    (1) D + F × C (2) D - F × E (3)D×F+E+C
    (4) D × F × E (5) None of these

Directions (Qs. 16-20): Read the following information and answer the questions that follows:

A family consists of six members P, Q, R, S, T and U. There are two married couples. Q is a doctor and the father of T. U is the grandfather of R and is a contractor S is grandmother of T and is a housewife. There is one doctor, one contractor, one nurse, one housewife and two students in the family.

16. Who is the husband of P?
    (1) R (2) U (3) Q
    (4) S (5) T
17. Who is the sister of T?
    (1) R (2) U (3) T
    (4) Data inadequate(5) None of these
18. What is the profession of P?
    (1) Doctor (2) Nurse
    (3) Doctor-or nurse (4) House wife
    (5) None of these
19. Which of the following are two married couples?
    (1) US, QT (2) US, QP (3) TS,RU
    (4) US, RP (5) None of these
20. Which of the following is definitely a group of male members?
    (1) QU (2) QUT (3) QUP
    (4) UT (5) None of these

Answers: Speed Developing Practice Test No. 13

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

Explanatory Answers:
Speed Developing Practice Test No. 13

1. (4) Only daughter of mother-in-law → wife i.e. girl's mother is Santhosh's wife. Santhosh is the father of the girl.
2. (4) Brother of wife → brother-in-law. Son of lady's brother is his brother-in-law. So the lady's brother is man's father-in-law i.e. the lady is the sister of man's father-in-law.
3. (3) Old man's son is Kailas brother. So old man is Kailas father.
4. (1) Mother of my daughter → my wife. Son of father of wife → brother of wife i.e. brother-in-law. i.e. Ashok is the brother-in-law of Manoj.
5. (3) Mother's son → brother
   My brother's father → my father
   My father's sister → my aunt
   So the lady is Geetha's aunt.
6. (2) My father's son → my brother
   Grandmother of my brother → my grandmother
   Only daughter-in-law of my grandmother means my mother. So the lady is the girl's mother.
7. (1) Grandfather's only son → father
   Daughter of father → sister
   So Balu is lady's brother
8. (3) Girija's step-daughter means Lakshmi's daughter. So Lakshmi is the mother of Shalini.
9. (5) Brother of uncle's daughter → uncle's son → cousin i.e. Man is Seema's cousin.
10. (4) My mother's mother → my grandmother; my grandmother's only son → my maternal uncle. So the woman is the Man's niece.