sentence after the rearrangement?
A c
B b
C a
D d
E e

Answers-
Logical Reasoning -

Q1 – A) LNTKCHMF
Each letter in the word is moved one step backward to obtain the
corresponding letter of the code.

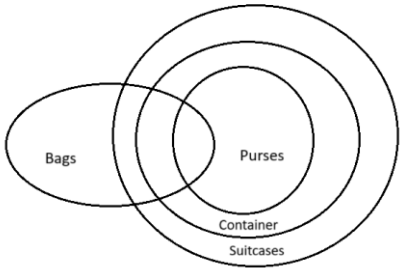
Q2 - D (spadivolo)
From 2nd statement, 'race' would be 'wilko' or 'spadi'
'bicycle' would be 'wilko'
The answer should contain 'spadi'
so, 'spadivolo', as 'wilko' is 'bicycle'

Q3 - C - Both (A) and (R) are true and (R) is the correct explanation of (A)
At the freezing point of water, molecules enter and leave the crystal at the same rate. However when salt is added to water, this molecular movement is disrupted and hence the temperature has to be lowered to make the molecular movement ordered again, leading to depression in freezing point. Hence, Both Assertion and Reason are correct and reason clearly explains the Assertion

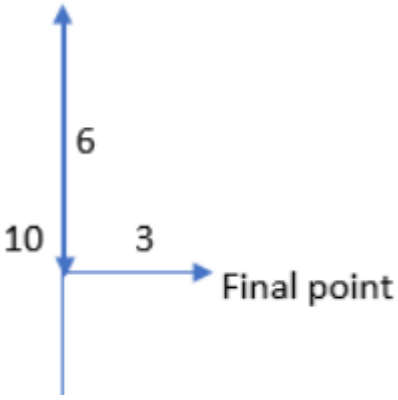
Q4 – B (Beans)
All are rich in proteins.

Q5 – D (KLLA)
The second and forth letters in the series, L and A, are static. The first and third letters consist of an alphabetical order beginning with the letter E.

Q6 – D (Only I,III,IV follow)



Q7 – D (5km north east)
Distance between starting point and final point
$=\sqrt{(4^2+3^2)}=5m$
The final point is 5km North-East to his starting position.



Q8 – A (Neither I nor II follow)
I does not follow because, passing students is not the only criteria for a productive school.
II does not follow because reducing the spending on teachers does not solve the problem.

Q9 – C (Y9)
The numbers have a difference of 2, so 9 will come.
For alphabets, the difference is increasing by 1, in the last the gap will be of 4 alphabets hence Y.

Q10 -A(C)
Both the statements are same.
Reference from bottom is given in both the cases hence rank from top can be found by any statement.

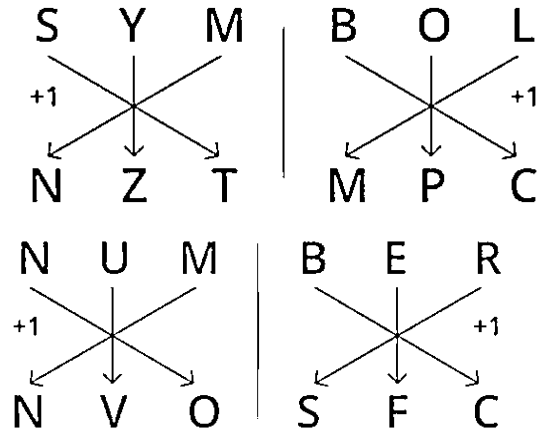
Q11 – A (D*F+E)
Question is incorrect as gender of E cannot be determined from any of the options provided.

Q12 – D (RS)
Consecutive alphabets.

Q13 – C (Sunday)
Sunday to Monday = no gap
Monday to Wednesday = One day gap.
Wednesday to Saturday = Two days gap.
Saturday to Wednesday = Three days gap.
Wednesday to Monday = Four days gap.
In the next term there must be five days and six days gap.
So, Next term would be Sunday, Sunday.

Q14 – A (Only I follow)
Some dogs are rats. All rats are trees.
Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some dogs are trees'. 'I' is the converse of this conclusion and so it holds.
All rats are trees. Some trees are not dogs.
Since the middle term 'trees' is not distributed even once in the premises, no definite conclusion follows.

Q15 – C (NVOSFC)



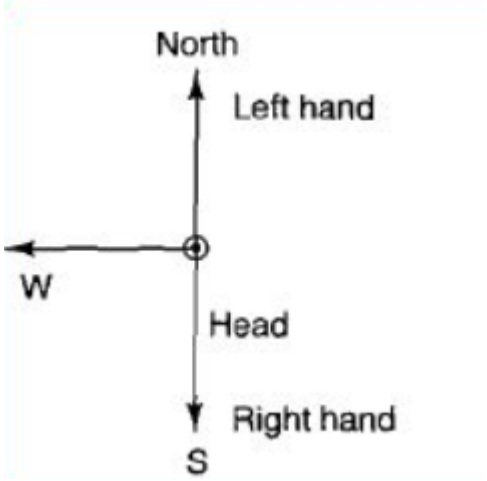
Q16 – D(D)
Both the statements together are not enough to find the code for 'sky'
Code can only be determined for 'clear'.

Q17 – D (pixnarth)
Gorbl means fan; *flur* means belt; *pixn* means ceiling; *arth* means tile; and *tusl* means roof.
Therefore, *pixnarth* is the correct choice.

Q18 – D (VE_7)
There are three series to look for here.
The first letters are alphabetical in reverse:
Z,Y,X,W,V.
The second letters are in alphabetical order, beginning with A.
The number series is as follows:
5,4,6,3,7.

Q19 – A (North)
The posture of the man is shown in diagram clearly

the left hand points towards the North.



Q20 – C (Both (A) and (R) are true and (R) is the correct explanation of (A))
The root nodules of leguminous plants contain certain nitrogen fixing bacteria which absorb the atmospheric nitrogen and convert it into nitrogeneous compounds useful for the plants reviving soil fertility.

Q21 – A (63)
63 is the only non prime number.

Q22 – D (GMRB)
ACFJ : OUZJ :: SUXB:?
A to O → 14 places
C to U → 18 places
F to Z → 20 places
J to J → o places
Same logic will apply for GMRB.

Q23 – B (132)
There are 12 people overall. It means that each 12 of them would have given 11 people handshakes (excluding themselves) So 12 X 11 gives 132. Now its said that they have all shook hands before and after the meeting. So its twice of 132 which would be 264. But here we have got the trouble of double counting. That is when 2 people shake with each other that is not 2 handshakes but only one. So let's divide 264 by 2. Thus we get 132.

Q24 – B (15)
The relationship is (2x - 4) : x

Q25 – C (45389)
We utilised the number of alphabets as a solution.
H = 8
A = 1
R = 18 = 1+8 = 9
Y = 25 = 2+5 = 7
For DELHI
D = 4
E = 5
L = 12 = 1+2 = 3
H = 8
I = 9
As a result, DELHI is abbreviated as c) 45389.

Q26 – C (Both (A) and (R) are true and (R) is the correct explanation of (A).)
When metal is heated, the kinetic energy of particles increases and the metal expands.

Q27 – A (A is true but B is false) – provided answer
Pluto is not considered a planet.

Q28 – B (Rs 34)
When numbers of chocolates, biscuits and apples are integers. Now let's say number of chocolates taken 1 , then biscuits will be 2 and apples can be 4,5,6,7
Hence minimum money that should be spent = 1+1+8 = 10
Now when number of chocolates are 4 Biscuits will be 8 And apples can be 13,14,15.
Now total money spent can be 4+4+26 = 34 and more of it.

Q29 – B (NQRR)
In a code where "Earth" is written as "FCUXM", "Moon" is written as "NQRR". To encode the word "Moon", replace each letter with the letter that is two letters to its right in the alphabet.

Q30 – E (Both (A) and (R) are false) – Provided answer
Females have higher life expectancy than men.

Q31 – C (Only I follows)
The statement indirectly asserts that the decision makers can work effectively to eliminate poverty, only if they get to know the basic problems afflicting the poor people through interaction with them. So, only I follows.

Q32 – B (ODQZM)

The pattern here is +1,-1,+1,-1,+1

Q33 – B (Steam)
First is the result of second.
Possible answers – Earthquake, Flood

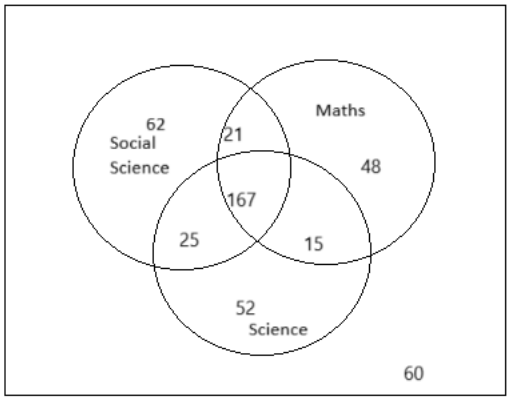
Q34 – B (8)
First Term = 5760.
Second term = 5760 /2 = 2880.
Third Term = 2880/3 = 960.
Fourth term = 960/4 = 240.
Fifth term = 240/5 = 48.
So, Required term = 48/6 = 8.

Q35 – A (Only III follows)
All snakes are trees. Some trees are roads.
Since the middle term is not distributed even once in the premises, so no definite conclusion follows.
Some trees are roads. All roads are mountains.
Since one premise is particular, the conclusion must be particular and should not contain the middle term. So, it follows that 'Some trees are mountains'.
III is the converse of this conclusion and so it holds.
All snakes are trees. Some trees are mountains.
Since the middle term is not distributed even once in the premises, so no definite conclusion follows.

Q36 – C (6)
According to condition,
Females will be at following positions –
1,3,5,7,9,11,13 = 7 females
No. of Males = 13-7 = 8

Q37 – A (Snail)
As snail creeps.

Q38 – B (203)



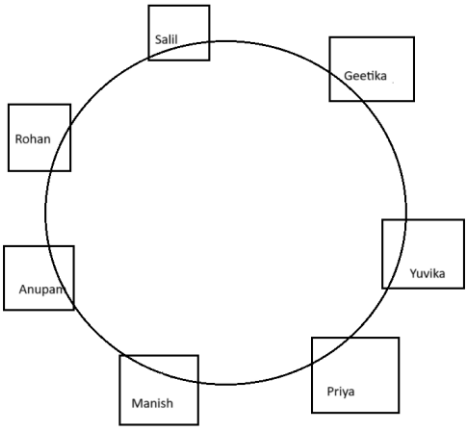
Candidates passed in Maths and at least one more subject =(21+15+167)=203

Q39 – C (15)
failed in social science =175−(60+52+48)=15
Q40 – B (61)
Failed in one subject only = candidates passed in all subjects + candidates failed in all the subjects + candidates passed in one subject only)
=450−(167+25+21+15)=61

Q41 – D(D) If neither statement I nor II is sufficient to solve.
No definite relation can be established.

Q42 – C(A)
Possibly incorrect answer.

Q43 – D (Priya – Manish)



Q44 – B (Manish)
Q45 – C (Manish)
Q46 – C (Cricket)
Q47 – C (Sachin)

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

Q48 – B (Rohit)
Q49 -A (Parth)

Q50 – C (0)
There are only two ways of scoring 20 from the table viz: 50 + 10 - 40 or 10+50-40.
In both cases there are three right answers.

Round 1			Round 2			Round 3		
C	W	Net Score	C	W	Net Score	C	W	Net Score
2	0	50	2	0	50	2	0	80
1	1	10	1	1	10	1	1	20
0	2	-20	0	2	-30	0	2	-40

Q51 – B (1)
40 can be scored by: (1)50-30 + 20 or (2) 10 + 10 + 20.

Q52 – A (60)
The maximum Penalty for 2 incorrect answers would occur when they happen in the last
round. Hence, the score would be 50 +50 – 40 = 60.

Q53 – B (2/27)
There are 3 x 3 x 3 = 27 possible scores. Out of these three there are only 2 ways of scoring 100.
Hence 2/27.

Q54 – Q57

3/4x x
X+16

Sharukh/Madhuri Sunil/Aishwarya Amit /Kareena Akshay/Juhi Anil/Shilpa

416 418 419
417 415

Shahrukh's film must be 24 days
Anil's film must be 48 days.
Sunil's film must be 32 days. (x=32)

Q54 – C (Amit)
Opposite of Kareena in her film – Amit

Q55 – B (Juhi)
Name of actress in studio no. 417

Q56 – B (Studio no. 416)

Q57 – E (32 days)

Q58 – B (Brother-in-law)
A is a male and married to B. So, A is the husband and B is the wife. C is the brother of A. D is the son of C. E, who is the sister of D will be the daughter of C. B is the daughter-in-law of F whose husband has died means F is the mother of A. C is the brother of A who is the husband of B. So, C is the brother-in-law of B.

Q59 – C (Mother)
A is a male and married to B. So, A is the husband and B is the wife. C is the brother of A. D is the son of C. E, who is the sister of D will be the daughter of C. B is the daughter-in-law of F whose husband has died means F is the mother of A. Clearly, F is the mother of A.

Q60 – B (Daughter)
A is a male and married to B. So, A is the husband and B is the wife. C is the brother of A. D is the son of C. E. who is the sister of D will be the daughter of C. B is the daughter-in-law of F whose husband has died means F is the mother of A. Clearly. E is the daughter of C.

Q61 - 63
This question looks extremely complicated due to the multiple statements, but the main issue required to be resolved while solving this question is the structure of the diagram. While solving this question concentrate mainly on who is present in the bar at different times of the day and correlate this information to the statements. Also try to number the events to give order to the various going-ins and coming-outs of the people. The following reaction tracker table gives the step-by-step reactions to the clues in the question.

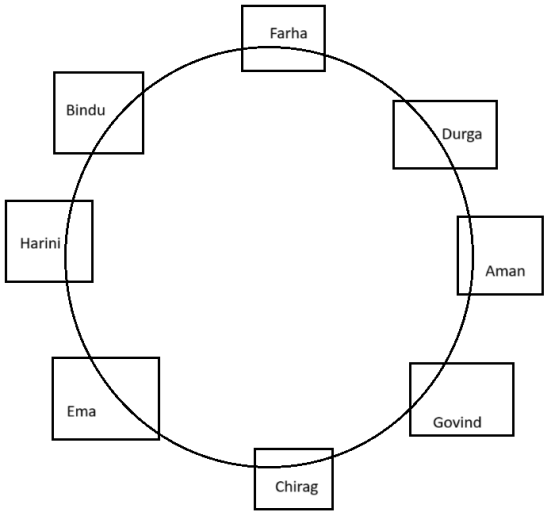
	Statement of
Jai Chand (JC)	Event 1: JC comes in
	Event 2: Sohan Singh (SS) comes in.
	Event 3: Shail Munshi (SM) comes in.
	Constraint: JC leaves with Deepak Garg (DG) leaving Jai Prakash (JP) and Vinod Rai (VR) in the bar.
Jai Prakash (JP)	Event (Number not known):JP and VR enter.
	Constraint: JC and someone else was there.

Shail Munshi (SM)	Event: SM enters
	Constraint: Meets JC, SS and DG
Sohan Singh (SS)	Event x: SM leaves
	Event (x + 1): SS leaves
Deepak Garg (DG)	Event: DG enters.
	Constraints: Meets SS, SM, JP and VR during his first visit.
	Event: DG and JC leave.
	Constraint : JP and VR are there when DG enters again. (No one else present)
Pradeep Kumar (PK)	Event: PK enters
	Constraint: Only JP and DG are present at this time.
Vinod Rai (VR)	No info.

Deductions: When JP and VR enter only 2 people are there. We also know the first 3 events—JC enters, SS enters and SM enters. Also, DG meets SC, SS, SM, JR & VR in his first visit.

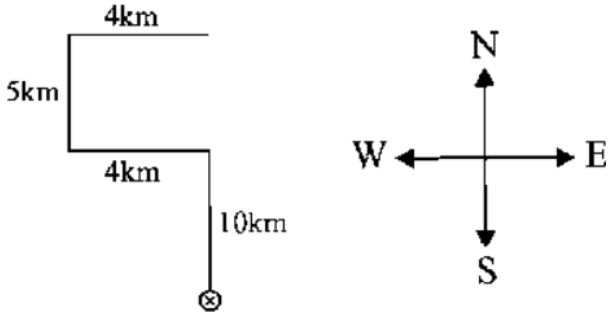
This gives us that:
Event 4: DG enters
Event 5: SM leaves
Event 6: SS leaves
Event 7:JP and VR enter (at this time only JC and DG are there)
Event 8:JC and DG leave (Now only JP and VR are present)
Event 9: DG comes back again (now JP, VR and DG are inside)
Event 10: VR leaves (Since when PK enters only JP and DG are there)
Event 11: PK enters
Event 12: PK leaves

Q61 – A (Deepak Garg)
Q62 – D (Jai Prakash and Deepak Garg)
Q63 – A (3)
Q64 - Q66



Q64 – C (Durga & Chirag)
Q65 – E (Aman)
Q66 – C (Bindu & Harini)
Q67 – C (Towards East)
If Mahesh travels 10 km north, turns left, travels 4 km, then turns right, and travels another 5 km, then he is facing east at the end, or point B. This is because he moves equal distance in every direction.

Q68 – A (15 km)
Pankaj's distance from his starting point = (10 + 5) km = 15 km



Q69 – A (III)
As the number of words in the input are 5, 3 steps will be enough to change position of every word in the input.

Q70 – A (III)
Input – these many other clinicians and
Step I – many these other clinicians and

Step II – clinicians many these other and
Step III – and clinicians many these other

Q71 – A (Only conclusion II is true)
Statements
H@K – H>K
K%M – K<M
M©D – M≤D
Conclusions -
H@D – H>D – which is false as relation cannot be established between M and H.
K%D – K<D – K is less than M and M is less than equal to D, so it follows.

Q72 - D (Neither I nor II is true)
Statements:
R%H – R<H
H©T - H≤T
T@K – T>K

Conclusions:
I. T©R - T≤R – T cannot be equal to R. It can only be less than R.
II. K%H – K<H – no clear relation between K and H.

Q73 – C (Either Conclusion I or II is true) (wrong question)
Statements
R©D - R≤D
D$M - D≥M
M*J – No meaning given for the sign.
Conclusions
I. J$D - J≥D – No relation given for J with D,R,M.
II. J%D – J<D - No relation given for J with D,R,M.

Q74 – C (Only conclusion I is true)
Statements
N@K – N>K
K%D – K<D
D#M – D=M
Conclusions
I. M@K – M>K – It follows as M=D>K
II. D@N – D>N – cannot establish a relation.

Q75 – E (Both conclusions I and II are correct)
Statements
T#H –> T=H
H$W -> H≥W
Conclusions
I. W%T – W<T
II. W#T – W=T
Either conclusion among I and II should be correct.

Answers-
Abstract Reasoning -
Q1 – B (2,4,5)

Q2 – B (2,6,9 ; 1,5,7 ; 3,4,8)
1, 5, 7 contain a rectangle with its two diagonals as the outer element and another element (similar or different) placed inside it.
2, 6, 9 contain a triangle with its three medians as the outer element and another element (similar or different) placed inside it.
3, 4, 8 contain a circle with its two mutually perpendicular diameters as the outer element and another element (similar or different) placed inside it.

Q3 – C (A)
The inner shape in one frame becomes the middle shape in the next frame; the central form becomes the outer shape in the next frame, and the external form becomes the inner shape two frames later.
Thus, the outer shape in the missing frame should be a square (just like the middle shape in the 5th frame), the central form should be a triangle (like the inner shape in the 5th frame), and the internal structure should be a diamond (like the outer shape in the 4th frame).

Q4 – B (1,3,5)

Q5) – A
From the first figure it is known that the empty circle and triangle are inserted inside the square. In second figure, filled circle and triangle are inserted over the empty circle and triangle. In the third figure, another empty circle and triangle are inserted.
From the fifth diagram we can see that another empty circle and triangle must be inserted in the fourth figure.
Therefore option A is correct.

Q6 – C (1 and 6)
All of the frames include four squares, which share the same pattern of inner squares except for frames 1 and 6. The pattern lies within the order of the squares (which can be observed either clockwise or anti-clockwise): A black square, followed by a white square, a dashed frame, and a frame with two dots on each edge. In options 2-4 this pattern can be observed clockwise, while in option 5 it appears anti-clockwise. Options 1 and 6 break this pattern.

Q7 – A (C)
C is the only option where opposite squares are alternatively black and white.

Q8 – A (C)
Option C is not the mirror image; others are mirror images.

Q9 – A (C)
The middle square is alternatively dark and light.
The dark blue circle is moving over the corners in a clockwise direction, hence figure C follows the pattern.

Q10 – A (3)
The two arrows move alternatively, from fig 5 the arrow pointing downwards should remain at its position in the next figure.
From this fig 3 has to be correct.

Q11 – B (B)
Each tile contains 2 overlapping shapes, 1 larger than the other. As the 2 shapes overlap a new, smaller shape if created inside the first large shape. The large shape in the following tile corresponds directly with this new shape that was created. When the shapes overlap the largest bisection is always within the biggest shape.

Q12 – B (11)
Q13 – D (D)
The figure is rotating 90 degree clockwise.
And internal figures are 1 and 2 alternatively.

Q14 – A (C)
Option C has 3 figures painted black, while other figures have 2 black figures.

Q15 – D (1,6,9 ; 3,4,7 ; 2,5,8)
3 sided fig, 4 sided fig, 5 sided fig.

Q16 – E (E)
Black circles are alternatively 5 and 7, the next figure will have 5 black circles.

Q17 – D (4)
The arrow is alternatively in the left half and right half. So, in next fig arrow will be in left half.
The arrow points towards right and left alternatively, in next fig it will be pointing towards right.

Q18 – D (D)
The inner shape in one frame becomes the middle shape in the next frame; the central form becomes the outer shape in the next frame, and the external form becomes the inner shape two frames later. Thus, the outer shape in the missing frame should be a square (just like the middle shape in the 5th frame), the central form should be a triangle (like the inner shape in the 5th frame), and the internal structure should be a diamond (like the outer shape in the 4th frame).

Q19 – B (B)
B is the only option where no figure is same unlike others.

Q20 – C (5)

Q21 – C (A)
The shade colour changes to dark, and the shaded portion also changes.

Q22 – C (1,3,9 ; 2,5,6 ; 4,7,8)
1,3,9 – A figure inside a figure.
2,5,6 – Single figure
4,7,8 – Adjacent figures

Q23 – C (A)
The dark square is going anticlockwise along the corners, the circle is popping up after every 2 figures. Answer figure will contain a circle and a dark square on the left bottom corner.

Q24 – A (C)
Mirror Image

Q25 – B (B)

Answers -
Quantitative Aptitude

Q1 – B
Part of the tank filled in one hour = 1/6
Part of the tank emptied in one hour = 1/12
Net part of the tank filled in one hour;
= 1/6- 1/12
=1/12
1/12 Part of the tank can be filled in one hour.
∴ The tank will be filled completely in 12 hours.

Q2 – B
Suppose they meet x hours after 7 a.m.
Distance covered by A in x hours = 20 x km.
Distance covered by B in (x - 1) hours = 25(x - 1) km.
∴20x+25(x−1)=110
⇒45x=135
⇒x=3
So, they meet at 10 a.m.

Q3 – ***Wrong Options given***
Formula for Simple interest : $I = \frac{P \times R \times T}{100}$

, where P= Principal
R = Rate of interest
T=Time
As per given, we have
P= Rs. 36000
R = 6%
T= 4 years
Put these values in above formula, we get

$$I = \frac{36000 \times 6 \times 4}{100} = 8640$$

Total amount Suresh has to pay along principal = Rs 36000+Rs 8640= Rs44640
Hence, Suresh has to pay Rs 44640.

Q4 – D
As train crosses the pole, the train has to cover its own length.
So the entire length of train takes 9 sec to cross the pole, we can use,
Distance = velocity × time
Given,
v=60km/h=(60×1000)/3600 m/s
and t=9s
Length of the pole
=vt =(60×1000)*9 /3600 =150m

Q5 – B
3, 5, 7 are the only set of three prime numbers which are in arithmetic progression with common difference = 2
The number of values of a is 1.

Q6 – A
To solve this problem, we can use the concept of man-hours.
First, let's calculate the total man-hours required to complete the job:
30 men * 20 days * 9 hours/day = 5400 man-hours
Now, we can use this total to find out how many hours 40 men should work to complete the job in 20 days:
40 men * 20 days * x hours/day = 5400 man-hours
where x is the number of hours per day for 40 men.

Solving for x:
40 * 20 * x = 5400
800x = 5400
x = 5400 / 800
x = 6.75
6.75 hrs is 6 hrs 45 mins.

Q7 – B
Given that , The average weight of 50 students = 45 kg.
Total weight of 50 students = 50 × 45
On leaving the class by one student the average weight reduces by = 100 gm
Total weight of 49 students = 49 × 44.9
∴ Weight of the student who left = 50 × 45 – 49 × 44.9
Weight of the student who left = 2250 – 2200.1 = 49.9 kg.

Q8 – B
Speed of the train relative to man =(125/10)m/sec
=(25/2)m/sec
=(25/2)×(18/5)km/hr
=45km/hr
Let the speed of the train be x km/hr.

Then, relative speed = (x - 5) km/hr.
$\therefore x-5 = 45 \Rightarrow x=50$km/hr.

Q9 – B
$\Rightarrow 8=2\times4=2\times2\times2=2^3$
$\Rightarrow 11=1\times11=11$
$\Rightarrow 24=2\times12=2\times2\times6=2\times2\times2\times3=2^3\times3$
⇒ Take the union of all of those to get the smallest possible number = $2^3\times11\times3=264$
∴ The smallest number which is increased by 5
= 264−5=259

Q10 – E
Let the radius of original circle = r
∴ Area of original circle =πr^2
But, the radius of the circle is decreased by 10%.
∴ Radius of new circle R=r−(10r/100)=(9/10)r
Area of new circle =πR^2
=$\pi\times(9r/10)^2$
=$(81/100)\pi r^2$
Decrease in area =$\pi r^2-(81\pi r2/100)=(19/100)\pi r^2$
Percentage decrease in area =$(19\ \pi r^2/100\ \pi r^2)\times100=19\%$

Q11 – A
We know that
Final price = initial price$(1+(\text{rate}/100))^{\text{time}}$
Here the final price = Rs. 8784, time =3 yrs,
rate =−10%p.a.
The rate is negative since the price is depreciating.
Let the initial price = Rs. x.
$\therefore x^* (1-(10/100))^3=8748$
$\Rightarrow x^*(9/10)\ ^*(9/10)\ ^*(9/10) = 8748$
$\Rightarrow x = 8748^*(10/9)^*(10/9)^*(10/9) =$ Rs. 12000
So, the price of the machine 3 years
back = Rs. 12000.

Q12 - B

For sum interested
on 1st January, P=Rs.1600,R=(5/2)% and
Time(n)=1×2 (as the compound interest is applied for a year and since, interested is half yearly, compound interest will be calculated for every 6 months).
Thus,
$\text{Amount}_1=\text{Rs.}1600\times(1+(5/(2\times100)))^2$ ...(i)
Now, for sum interested on 1st July,
P=Rs.1600,R=(5/2)% but Time (n)=(1/2)×2=1 (as sum interested on 1st July will be calculated till the end of the same year and thus time will be 6 months)

$\text{Amount}_2=\text{Rs.}1600\times(1+(5/(2\times100)))^1$...(ii)
Therefore, total amount at the end of 1 year is
Amount1+Amount2
$=\text{Rs.}[\ 1600\times(1+(5/(2\times100)))^2+1600\times(1+(5/(2\times100)))^1]$
=Rs.[1600×(41/40)×(41/40)+1600×(41/60)]
=Rs.[1600×41/40(41/40+1)]
=Rs.3321.
∴C.I.=Rs.(3321−3200)=Rs.121

Q13 - C
Given, 2/3 of 1/7 of a number say x is 87.5% of 240.
∴2/3*1/7*(x) = (87.5/100)*240
⇒x=(87.5×240×3×7)/(2×100)=2205
therefore, the number is 2205.

Q14 – B
Let average expenditure be 'a'
Total amount spent = (8*120)+(a+80)
Average = Total Spent/Total People
Total spent = (8*120)+(a+80)
Total People = 9

a = ((8*120)+(a+80))/9
by solving a = 130
Total Spent = (8*120)+(130+80)
=1170

Q15 – A
The word WATER has five distinct letters.
⇒ Number of arrangements =5!=5×4×3×2×1=120

Q16 – B
There are 38 numbers that are divisible by 13, and they are: 13 26 39 52 65 78 91 104 117 130 143 156 169 182 195 208 221 234 247 260 273 286 299 312 325 338 351 364 377 390 403 416 429 442 455 468 481 494.
If you divide 500 by 13 you get 38.46154, meaning you will have at least 38 numbers that are divisible by 13.

Q17 – E
Shopkeeper buys 1 pencil for = (100/50)
= 2 Rs
Shopkeeper sells 1 pencil for = (90/45)
= 2 Rs
So, No Profit No Loss.

Q18 – B

Area of field $=\pi 2^2$
$=227\times14\times14$
$=616\ ft^2$
No. of days required $=616/100=6.16\simeq6$ days

Q19 – B
Number of people who can drive = 2
Number of ways of selecting driver = $2C_1$
The other person who knows driving can be seated only in the rear three seats in 3 ways
Total number of ways of seating the two persons = $2C_1 \times 3$
Number of ways of seating remaining = 3!
Total number of all five can be seated = $2C_1$ x 3 x 3! = 36
Hence, correct answer is 36

Q20 -C
Let cost price of a table be Rs. X
According to the question x * 110/100 * 115/100 * 125/100 = 1265
x * 11/10 * 23/20 * 5/4 = 1265
x = 1265 * 10/11 * 20/23 * 4/5
x = Rs. 800
Cost of production of the table is Rs. 800.

Q21 – E
If we take 4^1 divided by 6, the remainder is 4.
4^2 divided by 6, remainder is 4
4^3 divided by 6, remainder is 0
4^4 divided by 6, remainder is 4
and so on...
So, When 4 has even a number of power, it will always give remainder 4 on dividing by 6.
The remainder of $4^{96} \div 6$ is 4.

Q22 – A
There are 6 letters in the word **second.**
The leftmost position can be filled by any of these 6 letters in 6 ways. And for each of the letters in the leftmost position, the next place can be filled by any of the remaining 5 letters in 5 ways and so on and so forth. Thus, total number of words that can be formed will be $6*5*4*3*2*1=7206*5*4*3*2*1=720$

Q23 – A
Required Percentage$=(1.14\times100)/(1.9) = 60\%$

Q24 – A
A chessboard has eight rows and eight columns, So total boxes are 64. According to question, a knight and a rook has to be placed, but not in the same row or column.
Select any box out of 64 for placing knight, no of ways = $64C_1$
Now, row 6 and columns can't be used to place rook.
Remaining boxes = 64 – (8 + 7) = 49

The rook can be place in any of 49 boxes, no of ways = $49C_1$ Total number of possible ways = $64C_1\times49C_1$ = 3136

Q25- C
It is given 20% of x = y
$x=5y \rightarrow y=x/5$ –(i)
We have to find y% of 20 = (y/100)*20
=(x*20)/(5*100)
x= 4% of x

Q26 – B
Winning Percentage = (Votes received / Total Votes)*100
Total number of votes = 1000 + 5000 + 10000 = 16000
Percentage of total votes the winning student gets = (10000 / 16000) * 100
= (0.625) * 100
= 62.5%
So, the winning student gets 62.5% of the total votes.

Q27 – B
The number should be divisible by LCM of (7,11,13)
LCM = 1001

Multiples of 1001 less than 3000,
1001, 2002
For greatest number,
3000-x=1001
x=1999
1999 should be subtracted from 3000.

Q28 – C
If a, b and c is divided by a number and leaves the same remainder in each case then such greatest number should be HCF of (b-a), (c-b) and (c-a) where a > b > c
Here (91-43) = 48
(183-91) = 92
and (183-43) = 140

HCF of 48, 92 and 140 is 4

Q29 – D
Average of two numbers = xy => Sum/2 = xy
=> Sum = 2*xy = 2xy
One number is x, let other number be a
=> x + a = 2xy
=> a = 2xy – x

Q30 – B
Let the speeds of the two trains be *x* m/sec and y m/sec .
Then, length of the first train = 27*x* metres
and length of the second train = 17*y* metres.
∴(27x+17y)/(x+y)=23
27x+17y=23x+23y
4x=6y
x/y=3/2
Hence The ratio of their speeds is 3:2

Q31 – B
Prime Factors of 7200: 2, 3, 5
Prime Factorization of 7200: $2^5 \times 3^2 \times 5^2$
Total number of factors = 6*3*3 = 54

Q32 – C
Rate of interest = 8% p.a.
Principal Rs. 9500
Time = 2 years
In case of the compound interest,
Amount = $P(1 + R/100)^N$
CI = $P * (1 + R / 100)^N – P$
Rate of interest when the interest is compounded half-yearly = 8/2 = 4%
Since the interest is compounded half-yearly, 2 years becomes = 2*(12/6) = 4
Now, the compound interest after 2 years = $9500 * (1 + 4/100)^4 - 9500$
=1 ,613.66
The compound interest is Rs. 1,613.66.

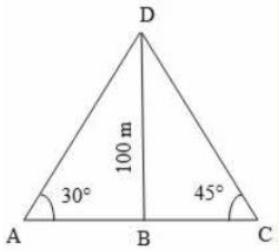
Q33 – B
Let the numbers be 21a and 21b, where a and b are co-primes.
We know that (LCM×HCF) = Product of two numbers, therefore, we have,
21a×21b=(21×4641)⇒441ab=21×4641⇒ab=21×4641441⇒ab=221
Two co-primes with product 221 are 13 and 17.
Therefore, the required number is (21×13,21×17)=(273,357)
Hence, the two numbers are 273 and 357.

Q34 – B
12.5 % Loss = 1- 1/8 = 7/8th of CP
12.5 % Profit = 1+1/8 = 9/8th of CP
a/q ,
7/8th of CP = 420
9/8th of CP = 420 x (8/7) x (9/8) = 540
SP with 12.5 % Profit = 540

Q35 – B
Reduction in price = 1/5 = 20%
Increase in Quantity = 25%
25% = 6 Kg
Original amount of Sugar = 6*4 = 24Kg.
Original price of the sugar = 240/24 = Rs. 10 per kg

Q36 – B
Sum of ‘n’ natural numbers = n*(n+1)/2=
100*(100+1)/2 = 5050
Average = (5050/100) = 50.50

Q37 – D
The mixture has 10% water, so the milk would be 90% of 60 litres.
Milk = (90/100) * 60 = 54 litres
therefore, water = 60 - 54 = 6 litres
Let water to be added = x litres
Now, (6+x/60+x) * 100 = 20
6+x/60+x = 1/5
30 + 5x = 60 + x
30-60 = x - 5x
-30 = -4x
x = 30/4 = 7.5 litres

Q38 – B


Let, BD be the lighthouse and A and C be the positions of the ships.
Then, BD=100 m, ∠BAD=30∘ , ∠BCD=45∘
In △ABD, we have
tan30∘=BDBA [∵tanθ=opposite side/Adjacent sides]

⇒1√3=100BA
⇒BA=100√3
In △CBD, we have
tan45∘=BD/BC
⇒1=100/BC
⇒BC=100 m
Distance between the two ships =AC=BA+BC
=100√3+100
=100(√3+1)
=100(1.73+1)
=100×2.73=273 m

Q39 – 6 Rs
According to the question,
30 pens + 75 pencils = Rs. 510
Average price of a pen = Rs. 2
Price of 30 pen
= 2 × 30 = Rs. 60
∴ Price of 75 pencils
= 510 - 60 = Rs. 450
∴ Average price of pen
= 450/75
= Rs. 6

Q40 – D
When we divide 1421,1423,1425 by 12 then the remainders will be 5,7,9.
The product of Remainders=5×7×9=315
And when 315 is divided by 12 the remainder will be 3
Hence N = 1421 x 1423 x 1425.
3 is the remainder when N is divided by 12.

Q41 – A
Let C. P. = Rs. x
then profit = S.P.−C.P
⇒(1/10)*x=891−x⇒11x/10=891
⇒x=(891×10)/11=Rs.810

Q42 – E
Let the number of students = x
According to the question
(50x−100×30)/x=45
50x−3000=45x
5x = 3000
x = 600

Q43 – B
If the CP is 96% of the SP
i.e SP=100 then CP=96
Profit =SP−CP
profit ⇒4
profit %⇒(4/96)×100
⇒4.16%=4.20%

Q44 – B
410–7=403
751–7=744
1030–7=1023
Required number=HCF of 403,744 and 1023.
We know that 403=13×31,
744=2×2×2×3×31 and
1023=3×11×31
HCF=31
∴ Required number=31

Q45 – A
Let x be the average till 18^{th} inning.
Average after 19 innings,
= (18x+98)/19=x+4
x=22
Add 4 to find the average score after the 19^{th} innings
22+4=26

Q46 – E
Let the two trains of length a metres and b metres be moving in opposite directions at u m/s and v m/s.
Time taken to cross each other =(a+b)/(u+v)sec.
Now, b=180,
u+v(150×(5/18))m/sec=(125/3)m/sec.
⇒9=(a+180)/(125/3)
⇒a=(375−180)=195m
Both Statements I and II together are necessary to answer the question

Q47 – E
Time taken to cross the train,
running in opposite directions = (l1 + l2)/(u + v) sec
10 =(210 + 300)/(u + v)
u + v = 51.
Time taken to cross the train, running in same direction = (l1 + l2)/(u - v) sec
30=(210 + 300)/(u - 60 x (5/18))
u = (17+(50/3))m/sec.
Thus, u and v can be obtained.

Q48 – A
8*25*8 = x*10*5

x=32

Q49 – D
Let the speed of the train be x metres/sec.
Time taken to cross a signal pole = (Length of the train / Speed of the train)
Time taken to cross a platform
=(Length of the train + Length of the Platform)/Speed of the train
Length of train = 330 m
I and III give, 18 =330/x => x=330/18 m/sec
=55/3 m/sec.
II and III give, 36 = (2 x 330)/x
→ x =660/36m/sec
= (55/3)m/sec.

Q50 – E
Let the length of the train P be x metres.
II. These trains are running in opposite directions.
III. Length of the train Q is 180 m.
I. Time taken by P to cross Q = (180+x)
Relative speed⇒18=(180+x)/(Relative speed)
Thus, even with I, II and III, the answer cannot be obtained.

Answers – Verbal Ability
Q1 – D (Cautious)
Antonym of Reckless – cautious

Q2 – C (poppy)
Poppy is a flower; others are edible items.

Q3 – E thespian: play
Diva: Opera - A diva is a female opera singer who is highly skilled and renowned for her exceptional vocal abilities. - Opera is a form of art that combines music, singing, acting, and theatrical elements to tell a story. Both a diva and opera are related to the field of performing arts, specifically in the context of opera.
a) Producer: Theatre - A producer is responsible for overseeing and managing various aspects of a theatrical production, including financing, budgeting, casting, and coordinating the different elements involved. - Theatre refers to the branch of the performing arts that involves live performances, including plays, musicals, and other productions. While both a producer and theatre are associated with the performing arts, the relationship between them is not the same as that between a diva and opera. A producer is involved in the overall management of a production, whereas a diva is a specific role within the art form of opera.
b) Director: Drama - A director is responsible for guiding and overseeing the artistic aspects of a theatrical production or film, including interpreting the script, blocking the actors' movements, and coordinating the technical elements. - Drama refers to a genre of literature and performing arts that deals with serious, intense, or emotional subjects and often involves conflict and character development. Again, while both a director and drama are related to the performing arts, the relationship between them is different from that between a diva and opera. A director is responsible for the overall artistic vision and execution of a production, whereas a diva is a specific role within the art form of opera.
c) Conductor: Bus - A conductor is a person who leads and directs an orchestra or a choir during a musical performance, ensuring that the musicians or singers play or sing together and interpret the music as intended by the composer. - Bus, in this context, likely refers to a vehicle used for public transportation. The relationship between a conductor and a bus is not the same as that between a diva and opera. A conductor leads and guides the musicians or singers during a musical performance, whereas a bus is a mode of transportation.
d) Thespian: Play - A thespian is an actor or actress who performs in plays or other theatrical productions. - Play refers to a form of literature and performing arts that involves the enactment of a story by actors on stage. The relationship between a thespian and a play is similar to that between a diva and opera. A thespian is a performer in plays, while a diva is a performer in operas. Both terms are specific to the realm of performing arts and involve live performances on stage.

Q4 – B (2)
'Conducted in' should be used in place of 'Conducted on'

Q5 – D (flowers)
All are types of flowers except flowers

Q6 – C (brushed past her)
The correct phrase is "brushed past her". "Brushed her past" means "to remove her past". "Brushed past her" means "to push away".

Q7 – B (Equanimity)
Equanimity is the correct spelling.

Q8 – C (government)
Option C is the correct answer because “government “ is a group of people having an authority to rule over a state.
The other options are forms of government, that are formed on the basis of a criteria.
For example.
Option A, monarchy means a government formed with the monarch(king/queen/ emperor) as the head.
Option E, plutocracy means a government formed by the wealthy
Option D, oligarchy means a government formed by a small group of people
Option B, Aristocracy means a form of government where a group of people with hereditary nobility, fortune, or birth have supreme power.

Q9 – C (Entrepreneur)
Entrepreneur is the correct spelling.

Q10 – B (reckless driver)
road hog – reckless driver

Q11 – A (3)
Incorrect - they know what it requires a king
Correct – they know that it requires a king

Q12 – C (Talk about one's profession)
Talk shop - Talk about one's profession

Q13 – A (Integrity)
probity = integrity

Q14 – C
The author would tend to agree with ‘Men and women should have equal access to education

Q15 – A (magnetism: attraction)

a) Iron : Metal - Iron is a type of metal, but this pair does not have the same relationship as gravity and pull.
b) North Pole : Directions - North Pole is a direction, but it does not have the same relationship as gravity and pull.
c) Magnetism : Attraction - Magnetism is a force of attraction between objects that have magnetic properties, similar to the relationship between gravity and pull.
d) Dust : Desert - Dust is a small particle, and desert is a type of environment. This pair does not have the same relationship as gravity and pull.

Q16 – A (abject)
The word miserable means very unhappy or uncomfortable, and the closest synonym is abject. Abject refers to the state of failure or misery, and is similar in meaning to miserable.

Q17 – D (Sun)
Sun is a star, others are planets.

Q18 – B (Pallid: Complexion)
Wan refers to pale colour. Similarly, pallid refers to pale complexion.

Q19 – C (roost)
Meaning of Roost – To rest

Q20 – B (counsel)
Meaning of Advice = Counsel

Q21 – D (4)
Correct form - One of the major problems with representative democracy is that the business of government has become the privilege of a few.

Q22 – B (grief: consolation)
Sedative(type of drug) provides relief from Pain. Similarly, Consolation provides relief from grief.

Q23 – A (symmetry)
Ceremony is a formal event or an occasion. It is not necessarily balanced in nature. Hence, option B is not the correct answer.
Cemetery is a place where the graves are placed. It is not something that is pleasing due to its

arrangement. Hence, option C is not the correct answer.
Hierarchy is an arrangement in which one is marked according to their status or rank. It is not similar to harmony. Hence, option D is not the correct answer.
Gluttony is a situation in which people eat and drink more than they need to.
Symmetry is a balanced arrangement of something in a way that it pleases the eye due to a balanced arrangement. It arises due to the two visual parts being exactly similar to each other. We observe that there is a similarity in the nature of pleasing the sense organ through balance.

Q24 – D (fence: epee)
First is the action performed with the second. Spear is used to thrust(push suddenly or violently), similarly, Epee is used for fencing.

Q25 – D/A (illicit, illegitimate)
The word "unlawful" means not conforming to, permitted by, or recognized by law or rules. "Illegitimate" and "illicit" are synonyms for "unlawful" because they both mean not authorized by the law, or not in accordance with accepted standards or rules.

Q26 – C (instead of)

Q27 – B (exonerate)
Implicate means show (someone) to be involved in a crime. Exonerate means absolve (someone) from blame for a fault or wrongdoing. Hence, the correct option is B) Exonerate.

Q28 – A (Ominous)
Ominous is the correct spelling.

Q29 – D (Lackadaisical)

Q30 – D (resolute)
The antonym of the word "vacillating" is "resolute". "Vacillating" means to waver between different opinions or actions, while "resolute" means admirably purposeful, determined, and unwavering.

Q31 – A (Aberrant)

Q32 – A (gram)
All except Rice are rabi crops, while rice is a kharif crop.

Q33 – D (please)
offend - to cause someone to feel upset, angry, or hurt by something said or done
repent – regret
affront - an action or remark that causes outrage or offence.
ridicule - to make fun of someone or something using unkind comments or speech, or to make someone look silly
please - to give satisfaction, pleasure, or contentment to (a person); make or cause (a person) to be glad
criticise - to evaluate, judge, or find fault with something

Q34 – A
Outsourcing the testing work to third-party neutral agencies having necessary infrastructure

Q35 – B
Lenient testing norms.

Q36 – C
Most of the companies belonging to a particular industry following unethical practices.

Q37 – A
Manipulating the data of vehicles sold over the years.

Q38 – A
clean honest society

Q39 – D
Stratified

Q40 – D
Politicians

Q41 – B
Opportunities

Q42 – E
Devastate

Q43 – E
Huge

Q44 – C
Bank assets are heavily concentrated in the housing sector

Q45 – C
Unemployment in Australia is on rise.

Q46 – C
Rise

Q47 – A
Only (B)
Australia inexperienced a commodity base.

Q48 – E
Correct Sequence -
5. King Midas was a very greedy king.
2. Even though he was very rich he always craved for more and more.
4. One Day, he called his court magician and commanded, find me a spell that can get me more treasures than I already have.
6. The magician said, "Your majesty, I can give you a power that no one else in this world has".
1. "Anything that you touch will turn into gold"-The king was delighted with his good fortune.
3. Everything he touched turned into gold. He turned trees, grass, tables, chairs, flower, and vases into gold.

Q49 – D
Correct Sequence -
5. King Midas was a very greedy king.
2. Even though he was very rich he always craved for more and more.
4. One Day, he called his court magician and commanded, find me a spell that can get me more treasures than I already have.
6. The magician said, "Your majesty, I can give you a power that no one else in this world has".
1. "Anything that you touch will turn into gold"-The king was delighted with his good fortune.
3. Everything he touched turned into gold. He turned trees, grass, tables, chairs, flower, and vases into gold.

Q50 – A (C)
Correct Sequence -
5. King Midas was a very greedy king.
2. Even though he was very rich he always craved for more and more.
4. One Day, he called his court magician and commanded, find me a spell that can get me more treasures than I already have.
6. The magician said, "Your majesty, I can give you a power that no one else in this world has".
1. "Anything that you touch will turn into gold"-The king was delighted with his good fortune.
3. Everything he touched turned into gold. He turned trees, grass, tables, chairs, flower, and vases into gold.