1. D
   It is the less recognized message the author wants to highlight

2. C
   Both are valid.

3. B
   Consider the number to be n.
   The difference between answers he got 7n/9 & Actual Answer 9n/7 is 32. So,

$$\frac{9n}{7} - \frac{7n}{9} = 32$$
$$\frac{81n - 49n}{63} = 32$$
$$\frac{32n}{63} = 32$$

n = 63

4. B
   6.66%
   According to formula,
   Difference between SI & CI = $\frac{Principal\ X\ Rate^2}{100^2}$

$$40 = \frac{9000\ X\ r^2}{100\ X\ 100}$$
$$r^2 = \frac{400}{9}$$
$$r^2 = \frac{20}{3} = 6.66\%$$

5. C
   Average age of old ladies before 3 years = 42
   Their present age average $O_1 + O_2 + O_3 = 42 + 3 = 45$
   Total age = $\frac{O_1 + O_2 + O_3}{3}$
   = 40 X 3 = 135
   = $O_1 + O_2 + O_3 = 135$ ..... (1)
   The average age of 2nd & 3rd old lady 5 years ago = 25
   Their present age average = 25 + 5
   = $O_2 + O_3 = 30$
   Their total age => $\frac{O2 + O3}{2} = 60$ ..... (2)
   Substitute (2) in (1)
   $O_1 + (O_2 + O_3) = 135$
   $O_1 = 135\text{-}60$

$O_1 = 75$

The present age of old lady 1 = 75 years old.

6. C

2	1012, 1276, 1716, 2112
2	506, 638, 858, 1056
11	253, 319, 429, 528
	23, 29, 39, 48

Most of the remainders are prime numbers so it can't be divided further.

So, Ans = 11 x 2 x 2 = 44.

7. D

Even if India enjoyed near universal supporter, there is no way that India alone can be elected says the passage.

8. A

Challenge is for permanent membership only.

9. C

II and IV are false according to the passage.

10. B

Focuses on increasing the awareness regarding the benefits of surrendering over abandonment, which is the thrust of the passage.

11. A

Both assumptions flow from the passage.

12. D

2205

Total No of invalid votes = 30%

So, total no of valid votes = 70%

So, 70% of 7000 = $\frac{70}{100} X\ 7000 = 4900$

Total valid votes secured by Rajesh = 55%

Total valid votes secured by Ramesh = 45%

So, 45% of 4900 = $\frac{45}{100}$ X 4900

= 45 X 49

= 2205

13. A

Cost price of the watch = Rs.60,000.

Profit they need to make out of sale = 20% of the CP.

$$= \frac{20}{100} \text{ X } 60000$$

$$= 12000$$

Selling price of the watch will be CP + P = 60,000 + 12000 = 72000

The discount given in the marked price (i.e. 100% of the watch) is 10%. So, the selling price which is

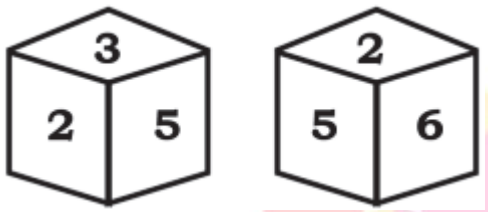
90% = 72,000

100% (MP) =?

$$\text{MP} = \frac{7200\ X\ 100}{9}$$

Marked Price = 80,000

14. D

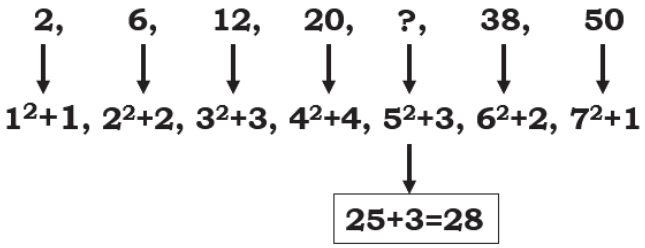


The numbers 2 and 5 are present in both the dices. So, the remaining visible faces are the opposite sides.

So, opposite of '3' is '6'.

15. C

From centre, the added value decreases in left and right.



16. C

Passage supports that assumption.

17. B

Straight from the passage.

18. D

I alone is a wrong measure.

19. A

I is a valid assumption.

20. B

Players from different countries:

(a) Uzbekistan 28/100 X 8000 = 2240	(b) India 18/100 X 8000 = 1440
(c) Ukraine 14/100 X 8000 = 1120	(d) Georgia 13/100 X 8000 = 1040
(e) Armenia 15/100 X 8000 = 1200	(f) Britain 12/100 X 8000 = 960

Female Players:

(b) Uzbekistan 12/100 X 3500 = 630	(b) India 13/100 X 3500 = 1440
(c) Ukraine 13/100 X 3500 = 455	(d) Georgia 10/100 X 3500 = 350
(e) Armenia 25/100 X 3500 = 875	(f) Britain 21/100 X 3500 = 735

Ratio between female players of Georgia & Armenia

= 10% : 25%

= 10:25

= 2:5

21. D

Total no. of male players from Uzbekistan & Ukraine.

Male players from Uzbekistan

= Total – female

= 2240 – 630 = 1610

Male players from Ukraine

= Total – female

= 1120-455

= 665

Total male players

= 1610+665 = 2275

22. C

Ratio of male students from India & Ukraine

India (male)

= 1440-455 = 985

Ukraine (male)

= 1120-455 = 665

Ratio = 985:665

= 197:133

23. A

Ratio between female & male in Georgia.

Female = 350.

Male = 1040 - 350 = 690.

Ratio = 350 : 690

= 35 : 69

24. C

Female & male percentage from India.

455/985 X 100 = 46%

25. A

x + (x+2) + (x+4) + (x+6) + (x+8) (sum of 5 consecutive even numbers)

= 116 + y + (y+2) + (y+4) + (y+6)

5x+20 = 116+4y+12

5x-4y = 108 ..... (1)

Given that smallest odd no & smallest even no sum = 50.

So, x + y = 55.....(2)

Solve (1) & (2)

$$5x - 4y = 108 \quad \text{.....(1)}$$
$$5x + 4y = 275 \quad \text{.....(2) x 5}$$
$$(-) \quad (-) \quad (-)$$
$$-y = -167$$
$$y = 167$$

26. D

Rest are not important/ relevant.

27. D

Most crucial and logical.

28. A

The total ratio value is 3+5+9+13=30

= Share of Prasad = 9x/30 = 3x/10

= Share of Balaji = 3x/30 = x/10

From the question

Prasad = 18000 + Balaji

So, Prasad share – Balaji share = 1800

= 3x/10 – x/10 = 1800

= 2x/10 = 1800

= x/5 = 1800

= x = 9000

Amount of share received by Arun & Vimal

= (5+13)/30 x 9000

= 18 x 300 = 5400

29. B.

Ratio of their workdays.

= 15:20

= 3:4.

Ratio of their wages is the reverse ratio = 4:3.

Total Income = 3500

Share of Amit = 4/7 x 3500

= 2000

30. D

Time taken to overtake (T) = Distance between the two players / Relative Speed

Relative speed = S1 – S2 (Since both are in same direction)

= 10 – 8

= 2 kmph (convert to m/s)

= 2 x (5/18) = 10/18

Time (T) = D/S = 100/10 = 180 sec

Convert Seconds into Minutes = 180/60 = 3 minutes

31. D

Most logical and rational inference from the passage

32. D

Right answer straight from the passage.

33. D

From the passage I and III are the attributes of twentieth century capitalism.

34. B

Gorbachev through his concepts of perestroika and glasnost wanted to save common citizens from being oppressed by the powerful.

35. A

Based on statements mentioned in the passage

36. D

Length & breadth are in the ratio 7:2 which is = 7x,2x.

Area of rectangle = l x b = 3584 m^2

= $7x \times 2x = 3584$

= $x^2 = 256$

= $x = 16$

So, l = 7 x 16, b = 2 x 16

l = 112; b = 32

Perimeter = 2 (l+b)

= 2 [112+32]

= 2 x 144

= 288 m

37. C

From the question,

Dosa > Vada > Idly

Total items = 32.

Checking from options,

a) If there is 12 or 13 vada, Remaining 32-12 = 20 items.
Since Dosa is greater than vada, It should be greater than 12 or 13.
So, 20-12=8
(at least 9 items should be there for each)
8 < 9, so condition not satisfied.

b) If there is 11 or 12 vada.
Remaining = 32-12
(as same as option a) but if we take 11 it is possible but not incase of 12.

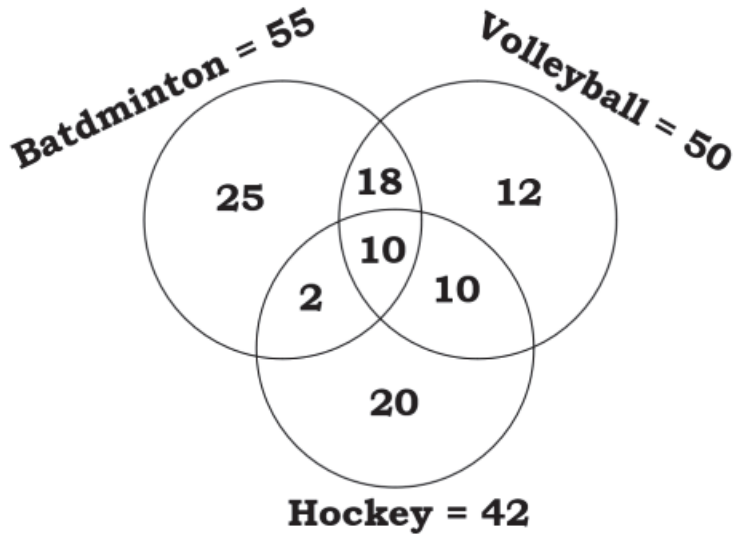
c) 10 or 11 vada
32-10 = 22.
No. of Dosa maybe 13
So, 22-13 = 9 idlies.
Similar to 10 also. Satisfied all condition
So, c is the answer.

d) 9 or 11.
32-9 =23
Out of 23, if Dosa is more than vada, Ex-10.
23-10=13 idlies.
It violates rule because number of idlies is greater than vada.
Answer – option (c).

38. A
Vishal had reached Patna 3 days earlier i.e on Friday.
So, the exact day he has to reach is = Friday + 3 = Monday.
So, If vishal reach on Sunday, he will reach one day before the actual day.
So answer – option (a).

39. A
Dimensions of the floor.
l = 35m, b = 49m.
Dimensions of tile = side = 7m.
No. of tiles needed to decorate the floor = $\frac{Floor\ Area\ (Reactangle)}{Tile\ Area\ (square)}$
= (l x b)/a^2 = $\frac{35\ X\ 49}{7\ X\ 7}$

40. C
By venn diagram



Students who are interested in only Badminton and volleyball = 28-10 = 18%
Students who are interested in only volleyball & Hockey =20 – 10 = 10%
Students who are interested in only Badminton and Hockey = 12-10 = 2%
Students who are interested only in Badminton = 55-18-10-2 =25%
Students who are interested only in Volleyball = 50-18-10-10 = 12%
Students who are interested only in Hockey = 42-10-10-2=20%
Percentage of students who interested in exactly on sport = 25+2+20=57%

41. D
Time taken by p1, p2 & p3 is 2 hours, 6 hours & 12 hours

Amount of Work Done by 3 pipes is ½; $\frac{1}{6}$; $and\ \frac{1}{12}$
p1 & p2 fills while p3 empties

Total work done = ½ $+\frac{1}{6}-\frac{1}{12}$

$$Taking\ LCM,$$
$$= \frac{6+2-1}{12} = \frac{8-1}{12} = \frac{7}{12}$$

Total time is the Reverse of total work done =$\frac{12}{7} = 1\left(\frac{5}{7}\right)$ option D

42. C
From the given information's,
   i. A – brother of Band C, so he is a male.
   ii. D – Father of C, so he is male
   iii. B – Son of E, so he is male
   iv. If D is father of C and B is son of E, and D is a male, so, E should be a female, wife of D and mother of A, B and C.
   v. D has only one daughter. D and E are married couples with A & B their sons. So, C should be their daughter.

So, option C will not be true since c is a female.

43. C
Both are valid assumptions.

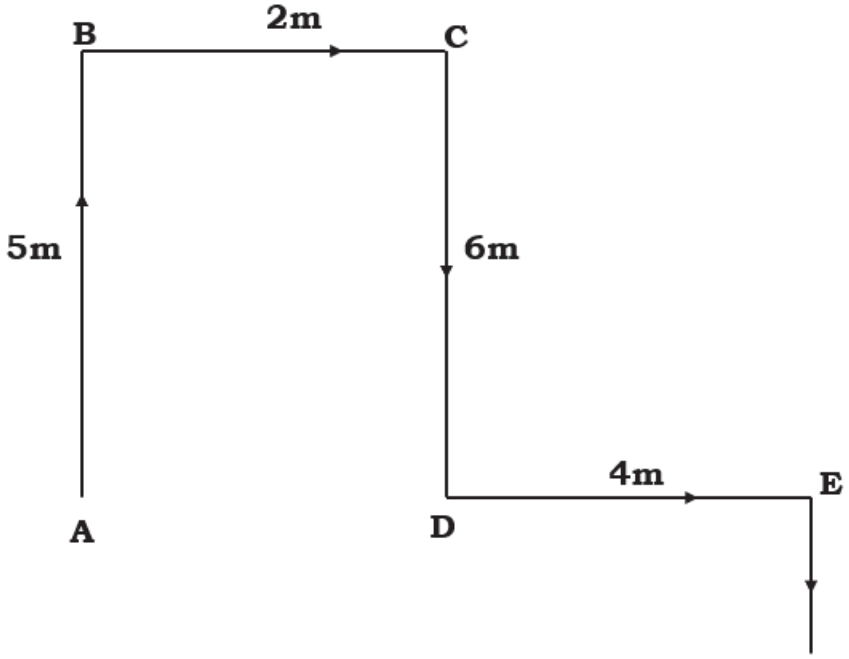
44. B
Nontraditional dangers have become more prevalent not highly prevalent

45. D
Highly critical of the draft Telecom Bill

46. D
None are good points of the drafts Telecom Bill

47. A
Due to centralization and repackaging the pre-independence laws as reforms, it is likely to lead to more regulations.

48. A So, he is facing south.



49. A

EMI = 20 parts out of 100 parts = $\frac{20}{100} = \frac{1}{5}$

50. C

Clothing expenditure of family B is 20 pants out of 100.

= 20/100 x 10,000 = 2000

51. D

Food, EMI and clothing expenditure for Family A is 40+30+10=70 out of 100 pants.

= 70/100 x 30,000 = 21,000

52. D

Although the percentage of expenditure for EMI and Entertainment is same for both families, we cannot determine who spend higher because the total amount for expenditure is not mentioned in the question. So, option-d cannot be determined.

53. C

- 2 in odd places and +2 in even places. So, answer is option (c).

54. C

Depression among elders is high and support systems to cater to their financial, social and heath aspects are needed, not just one single aspect.

55. C

Based on the article rest of the statements are wrong

56. D

2	2, 3, 5, 6, 9, 12
3	1, 3, 5, 3, 9, 6
	1, 1, 5, 1, 3, 2

= LCM = 2 x 3 x 5 x 3 x 2

= 180 minutes or 3 hours.

Time interval between 5.00 am to 2.00 pm = 9 hours.

So, for 9 hours, they will ring for $\frac{9}{3}$ = 3 times

57. C

The average of her 18 games = 30.

So by Formula,

$$\frac{Total\ of\ All\ Games}{Total\ No.of\ Observation} = Average$$

$$= \frac{Total\ of\ All\ Games}{18} = 30$$

$$= Total\ of\ All\ Games\ = 18\ X\ 30 = 540$$

Her highest point exceeds her lowest score by 20.

So, H = L + 20 (or) L = H - 20.

Without considering the highest & lowest point game, then the average decreases by 2 = 28

540	–	H	–	L	=	16	x	28
↑		↑		↑		↑		↑
Original total		Highest point		Lowest point		Subtract 2 games		New Average

$540 - H - L = 448.$

$Substitute\ L\ in\ above\ equation.$

$540 - H - (H - 20) = 448$

$540 - H - H + 20 = 448\ (multiply\ minus\ inside)$

$-2H = -112$

$H = 56$

58. A

Let the initial amount Sheela had be ‘x’.

Sheela spent 90% & gave remaining 10% to Meena.
So, the 10% which Sheela gave to Meena

$$= x \text{ X } \left(\frac{10}{100}\right)$$
$$= \frac{x}{10}$$

Let us consider the spendings by Meena.
15% - On books.
20% - On Medicines.

$$\frac{x}{10} - \left(\frac{x}{10} \times \frac{15}{100}\right) - \left(\frac{x}{10} \times \frac{20}{100}\right) = 1950$$

- $\frac{x}{10}$ ↑ Amount given by Sheela to meena.
- $\left(\frac{x}{10} \times \frac{15}{100}\right)$ ↑ 15% on books.
- $\left(\frac{x}{10} \times \frac{20}{100}\right)$ ↑ 20% on medicines
- $= 1950$ ↑ Remaining amount after spending

$$\left(\frac{x}{10}\right) - \left(\frac{15x}{1000}\right) - \left(\frac{20x}{1000}\right) = 1950$$
$$\frac{65x}{1000} = 1950$$
$$X = 30{,}000$$

Sheela had 30,000 = 3000 (amount which Sheela gave to Meena)

59. B

Let CP of Normal Shirt be *x*;
CP of Branded T Shirt = *x* + 150

SP of Normal Shirt (10% profit) = $x \; X \; \left(\frac{110}{100}\right) = \frac{11x}{10}$
SP of Branded Shirt (20% Loss) = $(x + 150)x \left(\frac{80}{100}\right)$

$$= \frac{8x + 1200}{10}$$

Given; SP are in ratio $11 : 12$

$$\frac{\frac{11x}{10}}{\frac{8x + 1200}{10}} = \frac{11}{12}$$
$$\frac{x}{2x + 300} = \frac{1}{3}$$
$$2x + 300 = 3x$$
$$3x - 2x = 300$$
$$x = 300 = price\ of\ normal\ shirt$$

CP of branded shirt = 300 + 150 = Rs 450

60. B
Simple Interest = Principle x Rate of Interest x Number of Years)/100
100 = (Px2xR)/100
PR = 5000 ..... (1)

Let us take difference formula.

$$CI - SI = \frac{PR2}{1002}$$
$$110 - 100 = (PR\ x\ R)/100\ x\ 100)$$
$$10 = \frac{5000\ x\ R}{100\ x\ 100}$$
$$R = 20\%$$

SI = Rs. 100 for 2 years = for 1 years is Rs. 50 which is 20%
If 20% = 50
Then 100% = Rs. 250 (which is principle)

61. B
Gandhiji will not agree only with Statement 4.

62. D
The classical statement means that

63. D
Both are wrong.

64. A
Urbanization was the focus which also broke down social hierarchies

65. A
(a) Count the number of odd days from the year 2002 onwards to get the sum equal to 0 odd day.

Year :	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Odd day:	1	2	1	1	1	2	1	1	1	2	1

Sum = 14 odd days = 0 odd days.
Calendar for the year 2013 will be same as for the year 2002.

66. B
Table for question 41 to 43

Important Cities	Industrial City	Part City	Hill Station	University
A	✓	×	×	✓
B	✓	✓	×	×
C	×	✓	×	×
D	×	×	✓	✓
E	✓	×	×	✓

B' has both Industry and Port but not University.

67. C
'C' has no Industry and no hill station

68. B
'B' and 'C' are port cities.

69. B
Contradiction means anyone of them speak lie for same fact There are 2 cases for contradiction
(i) Akash speak truth and Vasu lies.
(i.e does not speak truth)

$$= \left(\frac{3}{4}\right) x \left(\frac{1}{6}\right) = \frac{3}{24}$$

(ii) Akash lies (does not speak truth & Vasu speak truth).

$$= \left(\frac{1}{4}\right) x \left(\frac{5}{6}\right) = \frac{5}{24}$$

Combining both will give the state of contradiction

$$= \left(\frac{3}{24}\right) x \left(\frac{5}{24}\right) = \frac{8}{24} = \frac{1}{3}$$

70. A
Combination 1
Hari is present, Shanthi is not present
$= 4C_2 + 5C_2$

$$= \frac{4!}{(4-2)!\ X\ 2!} x \left(\frac{5!}{(3-2)!\ X\ 2!}\right)$$

Combination 2

= 6 x 10 = 60

Shanthi is present, Hari is not present.

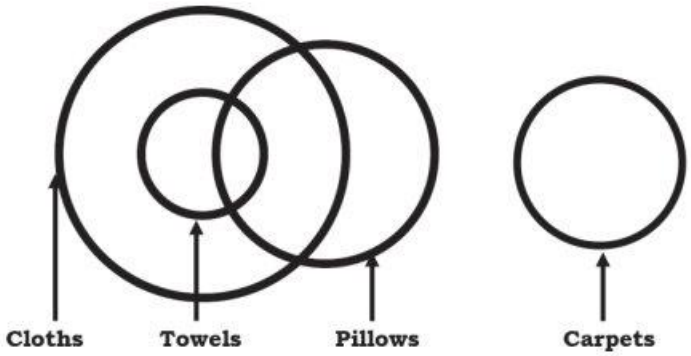
$= {}^4C_3 + {}^5C_1$

$= \frac{4!}{(4-3)!\ X\ 3!}\ x\ \left(\frac{5!}{(5-1)!\ X\ 1!}\right)$

= 4 x 5 = 20 ..... (1)

Total = Combination 1 + Combination 2 = 60 + 20 = 80

71. B I, II and IV only follows



72. C

Answer is option C going from the option.

No. of questions he attempted = 54.

So mark is 54 x 2 = 108.

He left 12 questions,

So, 12 x 0.5 = 6 marks (to be deducted).

108 – 6 = 102.

Remaining = 100 – (54 + 12)

= 100-66

= 34 questions (incorrectly answer).

So, 102 – 34 = 68 (Matching with the net score).

73. C

= Answer option C

= Multiply 7 x 2800 = 19600

= Which is square of 140

74. B

$a^2 - b^2 = 117$

$= (a+b)(a-b) = 117$ (Substitute $a^2 - b^2 = (a+b)(a-b)$)

= (a+b)(3) = 117 Given; a – b =3

= a+b = $\frac{117}{3}$ = **39**

75. C

Let the total number of chocolates be x.

According to question,

$\frac{x}{250} - \frac{2}{300}$= 1 (one chocolate extra).

$\frac{6x-5x}{1500}$ = 1

x = 1500

Answer is option c.

76. A Western Dance

October	**Day**	**Programs**
20th	Saturday	Carnatic music
21st	Sunday	Sunday (Holiday)
22nd	Monday	Classical dance
23rd	Tuesday	Group singing
24th	Wednesday	English play
25th	Thursday	Western dance
26th	Friday	Stand-up comedy
27th	Saturday	Instrument concert

77. A

One

78. D

Stand-up comedy

79. C

Group singing

80. C

Classical dance

*****