CIVILS CAFE IAS
All India Comprehensive Prelims Simulator Test 2
PAPER–2
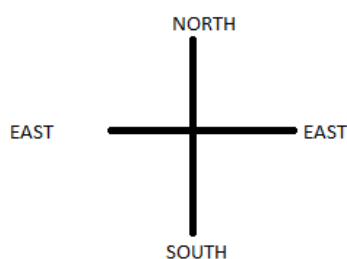# (ANS)

1. Ans: **(c) Brother**
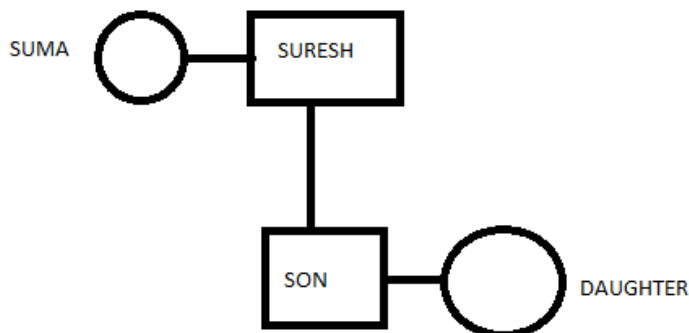
2. Ans: (b) North West
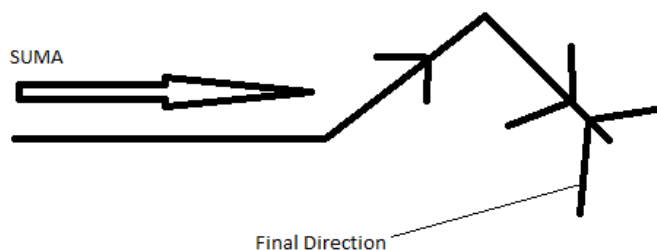
3. Ans: (a) Rs. 2,400

Let cost price of the mobile is Rs.x. Then selling price of the mobile is 1.1x   - 10% profit

Had he brought the mobile a 10% less price = 0.9 x –> new cost price

New s.p-→ 1.1x + 60 which is 125% of 0.9x

1.1x+ 60 = 1.25* 0.9x

1.1x+ 60 = 1.125x

0.025x=60

X=2400

4. Ans: (c) The average expenditure for first 10 days = Rs. 800.

For next 10 days it decreases by 30%, so the average expenditure for next 10 days = 800 X 70/100 = Rs. 560 And for last 10 days it further decreases by another 15%, so the average expenditure for the last 10 days = 560 x 85/100 = Rs. 476

Here, the number of days whose average is taken is equal to 10 days in all the three cases.

Thus, we can simply take the average of these three averages to find the final average for the whole month.

So, average expenditure for the whole month = (800 + 560 + 476)/3 = 1836/3 = Rs. 612

5. Ans: (b)

A works daily and B and C work only on alternate days, starting from B. It means that on the first day A and B will work. The second day A and C will work. This trend will continue till the whole work is completed.

Let us assume that total work is of 60 units (LCM of 12, 15 and 20 days) and the units of work done by A,B and C per day is a, b and c respectively.

Work done per day = Total work/Number of days needed to complete the whole work

Thus, a= 60 units/12 days = 5 units/day

b = 60 units/15 days = 4 units/day

c = 60 units/20 days = 3 units/day

Days	Day1	Day2	Day3	Day4	Day5	Day6	Day7
Amount of work done on respective days	5+4	5+3	5+4	5+3	5+4	5+3	5+4
Total work done till the end of respective days	9	17	26	34	43	51	60

Thus, the work (60 units) will be completed by the end of the 7th day.

6. Ans: (a) At 4:30 the hour hand is behind the minute hand by 45 degrees, i.e. angle between the two hands is 45 degrees,When the minute hand points in the north direction, the hour hand will be 45 degrees behind, i.e. it will point in the north-west direction.

7. ANS: (d) Total number of apples = 12 x 12 + 2 x 12 =14 x 12 = 168

Ten apples were removed thereafter. So, remaining apples = 168– 10=158

After transferring 158 apples equally in two baskets, we get:

Number of apples in one basket = 158/2 = 79. Hence, the correct option is (d)

8. Ans:

(b) Let the ages of father and son 10 years ago be 3x and x years respectively.

Now, it's given that ten years from now, father's age will be twice that of his son.

Thus, (3x + 10) + 10 = 2[(x + 10) + 10] or 3x + 20 = 2x + 40 or x = 20.

Required ratio = (3x + 10) : (x + 10) = 70 : 30 = 7 : 3.

9. Ans: (d) Volume of the original cube = 4^3 = 64 cm^3

Volume of 3 cm side cube = 3^3 = 27 cm^3

Volume of two 2 cm side cube = 2×2^3 = 2×8 = 16 cm^3

Amount of material left = 64 - (27+16) cm^3 = 21 cm^3

Now, volume of 1 cm side cube = 1^3 = 1 cm^3

Hence, 21 cubes of side 1 cm were made.

Total cubes formed = 1 + 2 + 21 = 24

10. Ans: (a) It's written in the passage that —Regulations intended to manage densities and discourage migration both limit the supply of land and require many households to consume more land than they would choose. This drives urban sprawl and pushes up the price of land and the cost of service delivery for all.It explains why option (a) is the answer. There is no mention of options (b) and (c) in the passage. Regulationsintended to discourage migration is the reason for limiting supply of land, not urban sprawl. There is no mention of regulations encouraging migration.

11. Ans: (a) Passage says —they are bereft of normal property rights protections and their investments are thus far riskier than those of the well off. So option (a) is the right option. There is no mention of options (b) and (c) in the passage. Though informal settlement leads to their vulnerability, lack of awareness is the main reason for the risk. So option (d) is also wrong.

12. Ans :(a) Passage clearly mentions that —The poor and lower income groups must be brought into the mainstream in cities. So option (a) is the right answer.

13. Answer: (d)

the main focus in the passage is on the fact that there has been an increase in the number of political candidates who have been exposed as criminals and that political parties are not bothered as long as the numbers increase. We need a statement that makes this argument possible. The sharp increase in the number of criminals in politics points towards the fact there might have been the odd criminal in political parties earlier but the frequency has increased now. Hence, we cannot assume that politicians being criminals is a recent phenomenon. Hence, option (a) is invalid. Also, the passage indicates that people have "shown to be criminals". This indicates that the discovery of criminals in politics is more an involuntary exposure rather than a voluntary admission of guilt. Hence, option (c) is also an invalid assumption. The passage does not compare various political parties in terms of how they handle such cases. Hence, option (b) cannot be assumed and hence, is invalid. The passage clearly mentions that parties are not interested in checking antecedents of their members. This assumes that parties have the ability to do so but lack the willingness. Hence, assumption (d) becomes valid. Hence, the correct answer is option (d).

14. Answer: (d) Explanation: The statement "The world today produces enough grain alone to provide every human being on the planet with thirty-five hundreds calories a day." makes it evident that the world has enough food for everyone, which in turn implies that hunger can be eradicated. This means that statements (1) and (2) are implied. However, the passage starts off by quoting how many people go hungry and/or are malnourished. In fact, the additional data given to show how much food is present is simply to illustrate the injustice of having a hunger crisis despite food being available. Hence, statement (3) is also implied. Hence, the correct answer is option (d).

15. ANS: C

One of the meanings of "systemic" is 'common' - this is the only meaning that fits in the context. Statistics in the passage indicate the enormous number of people who are hungry - one can therefore deduce the meaning of systemic to

be "common". The passage does not compare hunger as per different systems (presumably capitalist, communist etc) or due to certain political systems. It focuses on the prevalence of hunger. Hence, the correct answer is option (c).

16. Answer: (a)

The passage "Over 8 million people (roughly the population of New York City) died from hunger in that same year (almost 6 million of them were children)". When calculated, this implies that 75% of the hunger-related deaths in that year are of children. Hence, statement (1) is correct. Consider the following extract from the passage: "This year, around one billion people (one in seven of us) were acutely hungry. Their calorie intake was too low to meet even the most basic requirements for life. Existing in unjust purgatory between life and death, these individuals were joined by a further 1.5 billion who lacked the essential micro- nutrients to experience a baseline of health and activity". This combination of 1 billion and 1.5 billion means that 2.5 billion people are hungry or undernourished. Hence, statement (2) is correct. Statement (3) is incorrect as the passage only states that statistics related to hunger are not immediately available as in the case of war or natural disaster. In fact the contrary is true as the writer himself quotes several statistics - which are easily available. Hence, the correct answer is option (a).

17. Answer: (b)

According to the passage, "... woodland edges were acting as ecological traps for some songbirds, attracting high densities of reproductive individuals whose nests were then subjected to increased rates of predation and parasitism ...", which vindicates option (b) as the correct answer. Option (a) can be eliminated from "Therefore, ecological traps occurring at habitat edges may interact synergistically with such losses, and can become more severe as habitat fragmentation progresses.", which implies that habitat fragmentation leads to the development of ecological traps. Option (c) can be ruled out from "Although ecological traps were first described 30 years ago, it is only in the past couple of

years that ecological traps have received extensive theoretical treatment." Option (d) is incorrect. Though the passage mentions "This maladaptive habitat selection is generally attributed to a change in an organism's environment that is outside of their evolutionary experience …", this does not provide sufficient data to term ecological traps as "evolutionary experiences".

18. Answer: (d)

According to the passage, "This maladaptive habitat selection is generally attributed to a change in an organism's environment that is outside of their evolutionary experience and leads individuals to use misleading cues of habitat quality.". The change in an organism's environment cannot be attributed to the lack of availability of superior quality habitats. It is impossible to determine on the basis of the data given in the passage if the lack of availability of superior quality habitats leads organisms to selecting poor quality habitats. Hence, statement 1 is not a valid assumption. Eliminate options (a) and (c). Statement 2 cannot be validated from the data in the passage which limits itself to "Recent models suggest that ecological traps can lead deterministically to population extinction …". Eliminate option (b). Hence, the correct answer is option (d).

19. Answer: B

Acc to question if r= radius of circle and a is length of side

$2 \pi r = 4a \rightarrow a = (\pi r)/2$

Now,

Area of a circle $= \pi r^2 \rightarrow 1$

Area of a square $= a^2 = \{(\pi r)/2\}^2 = \pi^2 r^2/4 \rightarrow 2$

Compare 1 & 2

Since

$\pi/4$ is less than 1 ; hence area of circle>area of square

20. Ans: (c) 220 m²

c.s.a of cylinder = 2 π r h

c.s.a of cylinder = (2 x 22 x 0.35 x 2) / 7 =4.4 m² → in one revolution;

 in 50 revolution = 4.4 m² x 50 = 220 m²

21. Ans: (a) 4168

 3 x 1 + 1 = 4

4 x 3 + 1 =13

13 x 5 + 1 = 66

66 x 7 + 1 = 463

463 x 9 + 1 = 4168

22. Ans: (d) 40

The difference between the number of boys and that of girls = 1/9 of the total number of students = 80.

 Hence on the whole there are 720 students.

 Number of boys = 400

Number of absent boys = 320

 Number of girls = 320

Number of absent girls = 280

Hence, the correct answer is option (d)

23. Answer: (b)

Statement (1) can be inferred as the passage states that corporate social responsibility helps improve the firm's reputation among customers so that they continue to use the company's products and services. Thus, it is likely to increase the goodwill as well as sales.

Statement (2) contradicts the passage as the passage clearly mentions that corporate social responsibility represents direct efforts by a company to improve social aspects rather than its integral responsibilities with respect to primary stakeholders.

Statement (3) is described in the passage, which says that corporate social responsibility initiatives help achieve a company's core mission and strategies by providing a socially beneficial foundation. Hence, statements (1) and (3) are valid benefits.

24. Answer: (b)

The passage shows how a company and/or a community can benefit through corporate social responsibility initiatives. However, there is no evidence to support the assumption that the well-being of either the company or the community depends on such initiatives. The passage clearly mentions that strategic corporate social responsibility initiatives are closely linked to strategic philanthropy and cause marketing and that they help achieve a company's core mission. Hence, statement (2) is a valid assumption. Hence, the correct answer is option (b).

25.ANS: (c) 22.5

Total number of employees = 520

Total number of men =5/8 x 520=325

Total number of women=520 – 325=195

Department	MEN	WOMEN
HR	13	78
IT	65	78
PRODUCTION	130	5
MARKETING	117	34

The number of men working in the Marketing department forms what percentage of the total number of employees in the organization=117/325 X 100 =22.5

26. Ans: (c) 1 : 6

In HR dep

13 –MEN	78 - WOMEN

Required ratio = 13:78= 1:6

27. Ans : (c) 34

Department	MEN	WOMEN
HR	13	78
IT	65	78
PRODUCTION	130	5
MARKETING	117	34

28. Ans: (c) 143

Department	MEN	WOMEN
HR	13	78
IT	65	78
PRODUCTION	130	5
MARKETING	117	34

total number of employees working in the IT department = 65+78= 143

29. ANS: (c) P-A-Electronics

NAME	COLLEGE	BRANCH
P	A	Electronics
R	C	Mechanical
S	A	Mechanical
T	B	Mechanical
V	C	Electrical
W	B	Electrical
Z	A	Electronics
Q	C	Electrical

30. ANS: (c)

NAME	COLLEGE	BRANCH
P	A	Electronics
R	C	Mechanical
S	A	Mechanical
T	B	Mechanical
V	C	Electrical
W	B	Electrical
Z	A	Electronics
Q	C	Electrical

31. ANS : (c) Electrical

NAME	COLLEGE	BRANCH
P	A	Electronics
R	C	Mechanical
S	A	Mechanical
T	B	Mechanical
V	C	Electrical
W	B	Electrical
Z	A	Electronics
Q	C	Electrical

32. ANS: (d) A, B and C

NAME	COLLEGE	BRANCH
P	A	Electronics
R	C	Mechanical
S	A	Mechanical
T	B	Mechanical
V	C	Electrical
W	B	Electrical
Z	A	Electronics
Q	C	Electrical

33. ANS: (a)

NAME	COLLEGE	BRANCH
P	A	Electronics
R	C	Mechanical
S	A	Mechanical
T	B	Mechanical
V	C	Electrical
W	B	Electrical
Z	A	Electronics
Q	C	Electrical

34. Answer: (d) 4 days

(d) Explanation: 10 men can complete a work in 4 days.

10 boys can complete same work in 8 days.

20 boys can complete in 4 days (number of boys is inversely proportional to number of days).

In term of efficiency 10 men = 20 boys, 1 man = 2 boys. 5 men + 10 boys(equal to 5 men) will take 4 days.

35. Ans: (d)

x + y will always be greater than both x and y. Hence (x + y) cannot be a factor of either of the two numbers. Hence, option (d) is correct.

36.Ans: (d) 125 m

Lengthof train/ relativespeed = timetaken

Lengthoftrain/ 5m/s = 25

 Length of train = 125 meters

37. Answer: (d)

Statement 1 is incorrect as passage clearly says that developed countries have been able to reduce child death rates with the use of technological knowledge.

 Statement 3 is incorrect as it directly contradicts the passage as the reduction in developed countries has been more than that in developing countries. The passage mentions that if poorer countries were to adopt some of the technological advances, they might be able to cure or even prevent certain diseases and thereby reduce child mortality. This is correctly reflected in

Statement 2, which states that if governments and policymakers in poor countries follow technological advances, they can reduce child death rates.

38. Answer: (c)

passage starts off by saying that larger social media companies such as Facebook and Google take online crime and harassment very seriously and interact with civil society using various tools to try and reduce the instances of such crimes. This is done through multiple subject matter based working sessions, expert task forces and multidisciplinary groups. This goes on to show that social media platforms are indeed concerned about user security. This makes option (b) correct and option (d) incorrect. The passage focuses more on online crime and harassment, rather than data safety. While the two are related in real life, there is no data in the passage that supports the same. Hence, option (a) cannot be considered the most crucial message. The second half of the passage focuses on showing how most of these interactions between social media platforms and civil society happen behind closed doors or away from the spotlight, thereby leading to minimal transparency and accountability. This supports option (c). Between options (b) and (c), option (c) covers gist of the passage more comprehensively.

39. Answer: (d)

Though the Right to Education includes all girls in the age group 6-14 years, it need not include girls outside this age group. Thus, assumption 1 is incorrect. The passage states that schools with inadequate teachers are being provided with more teachers while existing teachers are being trained. However, nowhere does the passage allude that this is being done through teacher training institutes set up by private organisations. Thus, assumption 2 is also incorrect.

40. Answer: (a): According to the passage, the laws of ownership of land were created to protect small farmers from unscrupulous land-owners but have now become counter-productive. Thus, statement (3) is correct while statement (1) is not correct. While the passage does state that these laws were created in a different environment, it does not say that they were created before independence. Thus, statement (2) is not correct. Thus, only statement (3) is correct. Hence, the correct answer is option (a).

41. Answer: (c) The passage mentions that some priorities in the agriculture sector are controlling food inflation, managing food security, improving productivity, reducing wastages and increasing farmers' income. The passage then also recommends agricultural reforms as a potential solution. This can only be done if it is assumed that reforms in agriculture will be able to tackle the challenges of food inflation and food security. Thus, assumption 1 is valid. The passage also says that the area of "marketing and distribution of fresh produce" is "crying out for reforms. Thus, it is assumed that fresh produce is currently not being marketed and distributed properly. Thus, assumption 2 is also valid. Thus, both assumptions are valid. Hence, the correct answer is option (c).

42. Answer: (c) The passage explicitly mentions that ownership laws for agriculture were relevant in a different environment and have now become dysfunctional and counter-productive. Thus, one can infer that these need to be changed to suit the current socio- economic scenario. Thus, inference 1 can be drawn. The passage also clearly mentions that economic reforms have done wonders for a number of sectors, and should now be applied to agriculture. Thus, it can be inferred that economic reforms have been applied to sectors other than agriculture. Thus, inference 2 can also be drawn.

43. ANS: (a) Only II and III follow
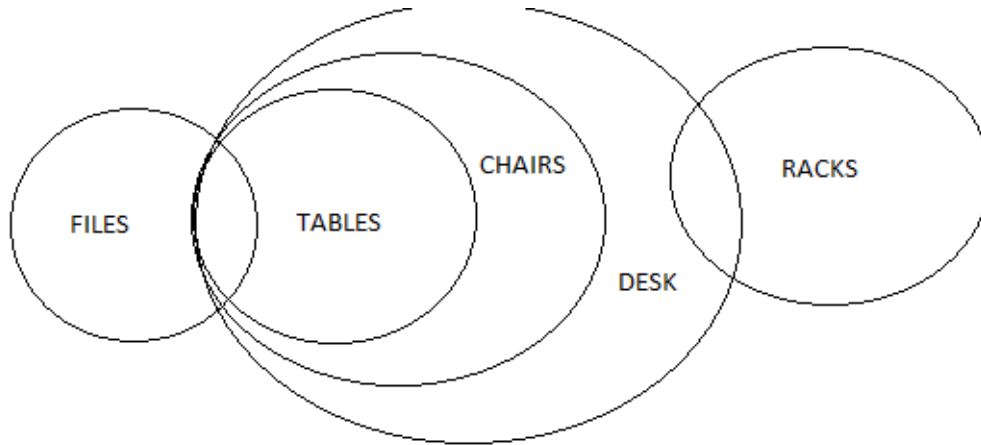
44. Answer: (c

Let incomes of A and B are 3x and 2x, and expenditures are 2y and y

1-3x-2y=3000

2- 2x-y=3000

After solving equation (i) and (ii) we get x=3000

Thus their combined monthly income is 3x+2x = 5x = 5x3000 = 15000

45. Answer (a) Let the number be 55+12 = 67 as it will leave remainder 12 when divided by 55 Thrice of the number = 67 x 3 = 201 201 when divided by 11 gives remainder 3 which is the answer.

46. Ans: (c) 19^0

Temperature on Sunday, Tuesday and Friday = 24 x 3 = 72

Temperature on Tuesday and Friday = 72 – Sunday Temp. = 72-25 = 47

Temperature on Thursday, Friday and Tuesday = 22 x 3 = 66

Temperature on Thursday = Temperature on Thursday, Friday and Tuesday - Temperature on Tuesday and Friday = 66-47 = 19

47. Answer: (c)

Let Suresh's present age = x

x=1¼ his age at the time of marriage =5/4 his age at the time of marriage

Suresh got married six years ago =(x-6)

x=5/4 X (x-6)

4x=5x-30

x=30

Sureshs present age = 30 years

Daughter's age = 1/10 x 30 = 3 years

48. ANSWER: (d)

From S1: The number is greater than one. So, possible numbers will be: 2, 3......10 Thus, there is no unique solution. Therefore, S1 alone is not sufficient to answer the question.

From S2: The number has 3 Factors. 4 and 9 are such numbers, which have only 3 factors. Thus, there is no unique solution. Therefore, S2 alone is not sufficient to answer the question. From S1 and S2: Even on combining S1 and S2, we are not able to find a unique solution. Therefore, S1 and S2 together are not sufficient to answer the question Hence, option (d) is correct

49. Answer: (c)

Option (a) contradicts the passage and can be ruled out immediately. Reservation was started for the under-represented and excluded communities;

there is no information in the passage to suggest that the X community is either of those things. Thus, option (b) can be eliminated. Similarly, there is no information given in the passage to suggest that option (d) is being implied. The passage merely states that the X community's idea of reservation differs from that of the country. It gives no suggestion as to what should be done about this. Only option (c) which states the genuine reason for creating reservation for certain communities can be said to be the most logical, rational and crucial message implied in the above passage. Hence, the correct answer is option (c).

50. Answer: (a) Option (b) is a very narrow and drastic inference. The passage states herbal medicine can provide a cure against some forms of cancer. However, it does not say that cancer can be completely eradicated. So, option (b) can be eliminated. Also, while the passage advocates research on and greater usage of traditional and herbal medicine, it does not say that modern medicine should be discarded. Therefore, option (c) is not a valid inference. The passage has not related the health of India's population (and consequently, India's health index) to herbal medicines. Hence, option (d) can be eliminated. Since the passage advocates more research on India's botanical wealth, it can be inferred that having more students take up Botany would be worthwhile.

51. Answer: Assumption 1 is incorrect. Refer to the line, "A democratic nation, or any nation, is also composed of structures — its constitution and laws". From this statement, we can conclude that any nation requires a constitution to run itself. Therefore, to assume that there is no constitution in an authoritarian regime will not be correct. The format of constitutions, and the implementation of its provision may vary across countries. So, this statement is not a valid assumption. Assumption 2 is correct. The line "In healthy democracies, citizens participate effectively in the shaping of the policies and laws by which they are governed" shows that citizens play a central role in deciding what laws and policies will be made for governing them and this is done through regular elections. A similar assumption is made in the given

option where it says that policies and laws are shaped by citizens' involvement in a functional democracy. So, this statement is a valid assumption.

52. Answer: (a)

The passage mentions that the spinning of Khadi was aimed at promoting rural self- employment. This could obviously have been correct only if it assumed that Khadi was manufactured by the rural population of India. Hence, statement (1) is correct. While the passage does say that Khadi was costly, it does not indicate that it was costlier than imported fabric. Hence, statement (2) is wrong.

53. Answer: (d)

The passage mentions that the freedom struggle revolved around the use of Khadi fabrics-hence, statement (1) is correct. The passage states that the Khadi movement was aimed at promoting Indian goods, thereby improving India's economy. Hence, statement (2) is correct. According to the passage, Mahatma Gandhi promoted the spinning of Khadi for rural self- employment and self-reliance. Hence, statement (3) is correct. While the passage states that the Khadi movement was started by Gandhi, it provides no evidence that the cloth was also invented by him. Hence, statement (4) is wrong. While the passage says that most Indian politicians wear Khadi, they may not be the only people doing so. Hence, statement (5) is wrong.

54. Answer: (c) Let ages of three boys be 3x, 5x and 7x

(3x +5x + 7x) / 3 = 15

15x / 3 = 15

x = 3

Age of oldest boy= 7x = 7 x 3 = 21

55. ANSWER: (d) None of the above

1. M>A>R

2. S=R>U

S is taller than U , but shorter than A & M

56 . ANSEWR : (c) 2197

$(3)^3$, $(5)^3$, $(7)^3$, $(11)^3$, $(13)^3$, $(17)^3$, and so on are the cubes of consecutive prime numbers.

57. Ans(b)

Number of people in the line = 3 + 5 − 1 = 7

58. Ans: (d) 33.33 km

Suppose distance = x

Suppose if t hrs is exact time required.

With avg speed 20km/hr = late by 15 min = t+(1/4) hrs

With a speed of 25 km/hr = 5 minutes earlier = t-(1/12) hrs

1→ 20 = x/ t+(1/4) hrs

2→ 25 = x/ t-(1/12) hrs

Equate for t

(x/20)-(1/4) = (x/25)+(1/12)

(5x-4x) /100 = (3+1)/12

X= 100/3=33.33km

59. Ans: (b)

Putting the value of x = -0.5 in all the options.

a. $2^{1/x} = 2^{1/-0.5} = 2^{-2} = 1/4$

b. $1/x = 1/-0.5 = -2$

c. $1/x^2 = 1/(-0.5)^2 = 4$

d. $2^x = 2^{-0.5} = 1/\sqrt{2}$

60. Ans: (b)

$a^x = b$, $b^y = c$ and $c^z = a$ So, $a^x b^y c^z = abc$

On comparing powers of a, b and c, we get: x = 1, y = 1 and z = 1 Therefore, xyz = 1 Hence, option (b) is correct.

61. Ans: (a)

Sum of the digits of the number obtained = (1 + 2 + 3 + 4 +....... 9) + 1 + 2 = 48

Now, sum of digits in the number 48 = 4 + 8 = 12

It gives a remainder of 3 when divided by 9.

Hence, option (a) is correct.

62. Ans: (c)

Option (a) is incorrect. The passage nowhere mentions that nutritious food must be made affordable for „all" of its citizens. Also, it may be a suggestion, but is not a corollary. So, this option is incorrect. Option (b) is incorrect. The passage mentions drivers and factors responsible for unaffordability and that implies the low standard of living of poor people. But the given statement does not mention the main issue, i.e. unaffordability and a healthy diet. So, in

comparison to option (c), this does not best reflect the corollary of the passage. Option (c) is correct. The passage mentions an unhealthy diet which lacks the nutrition required for the body. The second sentence of the passage also mentions its impact on food security. So, this option is the best corollary among the given options. Option (d) is incorrect. Form of government has not been discussed in the passage.

63. Ans : (a)

Option (a) is correct. The last sentence of the passage mentions, "Commodification leads to commercialization, attracting private investment." This can imply that the private sector is interested in investing in the education sector. The first sentence of the passage mentions, "There has been a rapid increase in student enrolment and diversity". This implies that enrolment and diversity of students are increasing. So, this option is the most logical assumption that can be made from the passage. So. this is the correct option. Option (b) is incorrect. The first part of the sentence is true as the passage mentions that knowledge is a commodity. But it nowhere mentions that it has impacted learning badly or well. So, this is an incorrect option. Option (c) is incorrect. The instrument of mobility mentioned in the passage is education. It has nowhere mentioned that families want education of their children necessarily in private schools or that better mobility can be achieved only from private schools. So, this is an incorrect option. Option (d) is incorrect. The passage mentions, "This was, till recently, a middle-class feature, but is now seen across the class spectrum." Earlier it was a middle-class feature but now all the classes of society whether it is low or high, see education as an instrument of mobility. So, this is an incorrect option.

64. Answer: (d)

Both the conclusions are correct. When a number is divisible by 5 and 14, it implies that it is divisible by all the prime factors of the numbers and their combinations.

Prime factor of 5 is 5 only and prime factors of 14 are 2 and 7.

So, all numbers will be divisible by: 2, 5, 7, 10, 14 and 35.

65. Answer: (a)

When Suresh changes his position from Ramesh, then his rank is 39. It implies that 38 people are on the left of Suresh.

Since, Suresh 's new position is 11th from right (Position exchanged with Ramesh), it means there are 10 people on the right of Suresh.

So, total number is: 38 (Students on the left of Suresh) + 1 (Suresh himself) + 10 (Students on the right hand of Suresh) = 49.

66. Answer: (b)

By S1 it is clear that Deven has scored most marks followed by Chaitali, and Anuj and Bina have scored less marks then Chaitali.

But, it is not clear who has scored the least marks.

Position between Anuj and Bina is clear through S3.

So, S1 and S3 together are required.

Information given in S2 is redundant and is not required.

67. Answer: (c)

Digit 1 is used 20 times between 1 to 100 (both included).

1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21, 31, 41, 51, 61, 71, 81, 91 and 100.

68. Answer: (b)

Let sale price of 45 lemons be Rs. x.

Then, 80 : 40 = 120 : x or x = (40 × 120)/80 = 60

For Rs.60, lemons sold = 45 For Rs.24, lemons sold = (45/60) × 24 = 18.

69. Answer: (b)

In order to find the largest size of soldiers, we need to find the HCF of both the groups. Now the HCF of 750 and 325 is

325 = 5 × 5 × 13

750 = 2 × 3 × 5 × 5 × 5

So, HCF is 5 × 5 = 25. So, the largest size of the group should be 25 only.

70. Answer: (d)

$2^2 + 1 = 5$

$3^2 + 1 = 10$

$5^2 + 1 = 26$

$7^2 + 1 = 50$

$11^2 + 1 = 122$

$13^2 + 1 = 170$

$17^2 + 1 = 290$ So, $19^2 + 1 = 362$

71. Answer: (b)

Total number of matches required = 128 + 64 + 32 + 16 + 8 + 4 + 2 + 1 = 255 Hence option (b).

72. Answer: (b)

Explanation:

Only two instruments = x + y + z = 70

a + b = 200 – (80 + 70 + 20) = 30

Hence, option (b).

73. Answer: (b

If all the vowels are together, we have to arrange 5 entities - (EUAIO), D, C, T, N

Number of arrangements = 5!

Also, 5 vowels can arrange among themselves in 5! Ways i.e. total number of ways = 5!*5!

Hence option (b).

74. Answer: (b) Monday

75. Answer: (d)

We have to identify the most logical inference from the passage. The passage highlights that the concept of state violence is modern. At the same time, it also captures that state has been using violence to establish law and order. So, the author wants to highlight the relationship between violence and other pillars of the state like liberty etc. By this logic only option (d) communicates the most logical inference from the passage.

76. Answer: (c)

Option (a) is incorrect as it presents cinema in a negative light that it has used to the tragedy for sway people. Option (b) is incorrect as the passage mentions

one incident not many. Option (d) is incorrect as it is not the critical message. Only option (c) communicates the message that paragraph presented.

77. Answer: (a) Explanation: In the very first statement it is clear that casteism has been an issue in the politics of the South India. So, statement 1 is right. Statement 2 is not right as issue highlighted in the passage cannot be considered as narrow in any sense. They are very important for expressing the identity of people.

78. Answer: (a)

The whole passage is about the impact of cinema on Indian society and it ends by saying that ―nothing happens that has not happened before in cinema‖. It implies that cinema shaped the thought process of Indians at large. Option b is wrong as there is no mention of negative impact of cinema. Similarly, showcasing the culture of India is also not mentioned. Option d is vague as it says that Indian movie stars are celebrated in India as well as abroad. Only option a is the best answer in this situation.

79. Ans: (c)

a=b+3 : a>b

a+2=c : c>a

c=d+7 : c>d

hence c >a,b,d

80. Ans: (c)

Sum of interior angles of a polygon = (n – 2) × 180

Where, n = number of sides = 6

Therefore, $(n - 2) \times 180 = (6 - 2) \times 180^0 = 720^0$

Sum of exterior angles of a regular polygon = 360^0

Required sum = $720^0 + 360^0 = 1080^0$