



All India Civil Services Coaching Centre

(Under the aegis of Government of Tamil Nadu)

Answer Key Explanation

Test 16 – CSAT Paper II

Maximum Questions: 100

Maximum Marks: 200

1. Correct Option: (d)

Explanation: In the passage, author mentioned about homeostasis in camels, rats and marine vertebrates from this we can state that the main idea of the passage is to cite examples of how homeostasis is achieved by various organisms.

2. Correct Option: (b)

Explanation:

In the passage, it is mentioned that “camels do rely on a special mechanism to keep water loss within a tolerable range: by seating and panting only when their body temperature exceeds that which would kill a human, they conserve internal water.” Implies that the camel maintains internal fluid balance by an ability to tolerate high body temperatures.

3. Correct Option: (b)

Explanation:

In the passage, it is mentioned that “by seating and panting only when their body temperature exceeds that which would kill a human, they conserve internal water.” Implies that some mechanisms that regulate internal body temperature, like sweating and panting can lead to a drop in the body's internal fluid level.

4. Correct Option: (c)

Explanation:

In the passage it is mentioned “The country's economic strength- having acquired the largest foreign exchange reserves in the world” implies that China's increased participation in world affairs is due to its influence and prestige have grown substantially.

5. Correct Option: (d)

Explanation: The author has highlighted the two approaches that have been described in the entire passage.

6. Correct Option: (c)

Explanation: The author wanted to highlight the widespread of technological innovations, as indicated in the first sentence of the passage, “From ‘apparel to aerospace’, ‘steel to software’, the pace of technological innovation is quickening.”

7. Correct Option: (b)

Explanation: Refer the second sentence of the first paragraph “No longer can companies afford to miss generation of technology and expect to remain competitive.”

8. Correct Option: (d)

Explanation: Refer the last two sentences of the passage “Yet many western companies still rely almost exclusively – on the breakthrough approach. The reasons are complex: a distrust of outside innovations and not-invented here engineering and arrogance and aversion to sharing research results.”

9. Correct Option: (c)

Explanation: Let the quotients when this number is divided by 5 and 7 be x and y respectively.

(Note that x will be greater than y as 5 is smaller than 7).

$$\text{Number} = 5x + 2 = 7y + 5$$

$$\text{Given that, } x - y = 3$$

On solving both equation we get, $x = 9$, $y = 6$

Thus, the number is $5 \times 9 + 2 = 47$.

10. Correct Option: (a)

Explanation:

Winning candidate gets 60% of valid votes

So, 60% of valid votes = 7,500

Total number of valid votes = $(7500 / 60) \times 100 = 12,500$

While, it's given that 20% votes are invalid so 12,500 is 80% of total votes.

Total votes = $(12,500 / 80) \times 100 = 15,625$

So invalid votes = $15,625 - 12,500 = 3,125$

11. Correct Option: (b)

Explanation:

C.P. of 56 kg potato = Rs. $(26 \times 20 + 30 \times 36) = \text{Rs. } (520 + 1080) = \text{Rs. } 1600.$

S.P. of 56 kg potato = Rs. $(56 \times 30) = \text{Rs. } 1680$

Gain = $(80/1600 \times 100) = 5\%$

12. Correct Option: (a)

Explanation: In the passage it is mentioned that "A contented man devotes himself to virtues; a man can feel true happiness." Implies that a contented man pursues and assimilates the basic virtues of life.

13. Correct Option: (d)

Explanation: In the passage it is mentioned "Simple living encourages high thinking. It leads to contentment. Contentment gives us inner wealth" implies that correct chain of things is simple living, high thinking, contentment, inner wealth

14. Correct Option: (d)

Explanation: From the passage it can be easily inferred that according to author the essence of happiness lies in adopting a simple lifestyle.

15. Correct Option: (b)

Explanation: In the passage the author is primarily concerned with describing and accounting for a difference in literary styles

16. Correct Option: (a)

Explanation: According to the author, the Chicano oral experience contributed directly to sensitivity to and adeptness in using the spoken language.

17. Correct Option: (d)

Explanation: In the passage it is mentioned that "often required the elimination of nuance or colloquialism, the adoption of a formal tone, and the adjustment of themes or ideas to satisfy the different demands of national publications." Implies that national publications took a stylistically formal approach to material of interest to a general audience.

18. Correct Option: (a)

Explanation: From the passage it can be inferred that Expert is someone who has extensive knowledge and experience in a specific area and they have a track record of being right but it doesn't imply they are always right and they mostly have the right view either same as public or different from public. So, only 1 and 2 follows.

19. Correct Option: (d)

Explanation: In the passage it is mentioned that Experts are of many types some has exceptional knowledge while some relate less to doing and more to perceiving. So, 1 doesn't follow and it is also mentioned that "Our beliefs are more likely to be justified or true if we get them from experts" it doesn't imply it's always justified. So, none of them follows.

20. Correct Option (c)

Explanation:

The figure is divided into 3 parts both horizontally and vertically no. of squares = $12 + 22 + 32 = 14.$

21. Correct Option (d)

Explanation:

(1) and (2) are incorrect since they ignore the larger picture.

(3) is incorrect as it talks about lawmakers. Calling the country riot-prone is also incorrect.

Option (4) is the correct choice since it is mentioned that the government has failed to regulate abuse and exploitation. The law has made the vulnerable more susceptible.

Then later on it is mentioned explicitly, 'Advocates who oppose letting children like Isaac work say some are exploited or sexually abused, while others wind up living on the streets, plagued by crime, violence and addiction'.

22. Correct Option (d)

Explanation :

In the passage it is stated that, 'The ILO has urged Bolivia to repeal the child labour law, but its supporters say children have the right to work'. The other options are factually incorrect.

Hence, the correct option is (4).

23. Correct Option (b)

Explanation :

Refer to the example of Isaac. It clearly supports option 2.

Options 1 and 3 go against the points made by the author.

Option 4 is the opinion of a politician. It doesn't reflect the tone of the author. So, (2) is the correct answer.

24. Correct Option (d)

Explanation:

According to Merry her father's birthday can be on 19th, 20th or 21st(i)

According to her brother Sam her father's birthday can be on 21st, 22nd or 23rd(ii)

From (i) & (ii) we get 21st June as the birthday of the father.

25. Correct Option (b)

Explanation:

U lives on the 4th Floor.

26. Correct Option (a)

Explanation:

R lives on the topmost floor.

27. Correct Option (d)

Explanation: Person R lives on thrice the floor number of the person S.

28. Correct Option (b)

Explanation:

Consider column wise

$$17 \times 4 = 68, 68 - (17 + 4) = 47$$

$$12 \times 5 = 60, 60 - (12 + 5) = 43$$

Same as,

$$11 \times 6 = 66, 66 - (11 + 6) = 49$$

29. Correct Option (a)

Explanation:

Vijay is 26th from left and Kumar is 10th places to the left of Vijay.

So, Kumar is 16th from left.

Now there are three boys between Kumar and Kavir.

So Kavir maybe 12th or 20th from the left.

Since the exact position of Kavir can not be ascertained, so the given data are inadequate

30. Correct Option: (b)

Explanation: Number 3 represents the area common to all types.

31. Correct Option (b)

Explanation:

From statement 1 and 2 we see that "Science" is coded as "3"

From statement 1 and 3 we see that "4" will be the code for "is".

So, the code for "evil" is "7".

Solutions

(32-33)

The graph given in the question can be expressed as a table given below.

Year	Import	Export	Trade Deficit
1987-88	17	11	6
1988-89	19	12	7
1989-90	21	16	5
1990-91	24	18	6
1991-92	20	18	2
1992-93	22	18	4
1993-94	23	21	2
1994-95	27	24	3
	173	138	

32. Correct Option (a)

Explanation:

- The first statement is obviously true as the trade deficit in each year is less than the export earning.
- The export earning has remained constant for three years between 1990 and 1993. Hence, statement II is not true.
- Even statement III is not true as the exports in 1994-95 is more than the imports in 1993-94.

33. Correct Option (d)

Explanation :

In the last three years, Imports = (22 + 23 + 27) = 72 and
 Exports = (18 + 21 + 24) = 63. Hence, the required percentage
 = $(63 / 72) \times 100 = 87.5\% = 88\%$
 (approximately).

34. Correct Option (d)

Explanation:

- (d) is a summary for the general words 'varied use', 'common basis' pertaining to the 'symbol' in the geographical and historical context.
 (c) does not present the complete picture.
 (a) refuses to divulge the significance of the umbrella.
 (b) is wrong as the ruler is regarded as the instrument of firmament of the supreme law.

35. Correct Option (d)

Explanation:

- (a) would only result in more cars per family.
 (b) and (c) defeat Athens' purpose as citizens devise ingenious methods to maintain status quo both in terms of number of cars and congestion.

36. Correct Option (a)

Explanation:

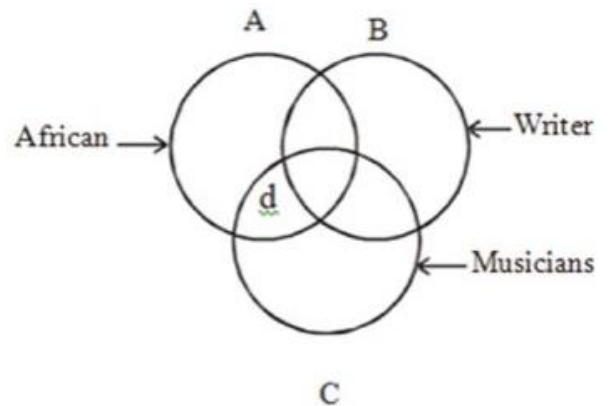
- (b) does not attack the argument, it helps the Association's cause.
 (c) is pointless, if there isn't adequate consumption. Option (d) does not address the core issue as directly as (a). But (a) if true,

would render the cumulative efforts of the Association fruitless.

37. Correct Option (a)

Explanation:

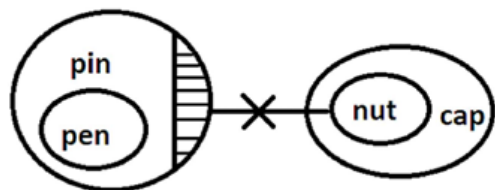
Area is common to A and C.



38. Correct Option (a)

Explanation:

The given statements can be represented as,



- I. Some nuts are not pin – It is not true.
 II. Some pins are not cap – It is not true.
 Thus neither I nor II is true.

39. Correct Option (a)

Explanation:

Tourist from UK
 = $150000 \times (10 / 100)$
 = 15000
 % below 39 years = $10 + 10 = 20\%$
 % of tourists from UK of and below 39 years
 = $(15000 / 100) \times 20$
 = 3000

40. Correct Option (c)

Explanation:

(-)

|

Nina(-) = Bob(+)

Thus, Nina is the wife of Bob.

Solutions (3-4)

The final sitting arrangement is given below.

G - A - E - B - C - D - F

41. Correct Option (c)

Explanation:

(c) is the correct answer choice. The arrangement emerges somewhat like this:- Premise - I: If developed country, then social security for the elderly. Premise - II: No social security for the elderly in India, as it is not a developed country and also the traditional support - "joint family system" - for them is vanishing. Conclusion: Therefore,

working people in India must save for their old age.

(c) announces the good news for Indian working people: 'India will become a developed country in the future,' implying social security for the elderly, thereby weakening the conclusion.

(a) and (b) indicate some encouraging future trends, but do not obviate the necessity for Indian working people to save for their old age.

(d) Strengthens the conclusion, rather than weakening it.

Solutions (42-44)

The following table shows the days of birth of each of the given persons.

Saturday	Mickey
Sunday	Johnny

42. Correct Option (a)

Explanation:

Tom was born between Tweety and Daffy.

43. Correct Option (a)

Explanation:

Five persons are older than Mickey.

44. Correct Option (d)

Explanation:

Daffy was born on Monday.

45. Correct Option (c)

Explanation:

Statement (c) is true because of some portion of the rectangle is common to both the triangle and the circle.

46. Correct Option (b)

Explanation:

Given Income of A : Income of B = 1:2

Assume Income of A = x and hence

Income of B = 2x

Given Expenses on Food Clothing and Miscellaneous of A and B is same.

Hence (20 + 20 + 15)% of Expenditure of A = (15 + 15 + 10) % of Expenditure of B

$$\text{Hence } \frac{E_A}{E_B} = \frac{40}{55} = \frac{8}{11}$$

Hence Assume Expenditure of A = 8y

Expenditure of B = 11y

Saving of A = SA = x - 8y

Saving of B = SB = 2x - 11y = 2x - 16y +

5y = 2(x - 8y) + 5y = 2SA + 5y

Hence B saves more

47. Correct Option (d)

Explanation:

25 = 5, 16 = 4, 9 = 3

(5 × 4 × 3) ÷ 2 = 60 ÷ 2 = 30

4 = 2, 36 = 6, 49 = 7

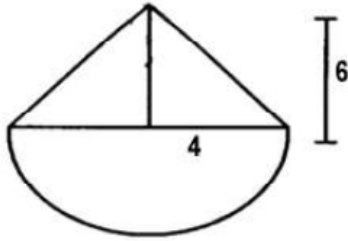
(2 × 6 × 7) ÷ 2 = 84 ÷ 2 = 42

64 = 8, 81 = 9, 1 = 1

(8 × 9 × 1) ÷ 2 = 72 ÷ 2 = 36

So the answer is 36

Day	Persons
Monday	Daffy
Tuesday	Tom
Wednesday	Tweety
Thursday	Jerry
Friday	Goofy

48. Correct Option (b)**Explanation:**Surface area of hemisphere = $3\pi r^2$

$$= 3 \times (22 / 7) \times 6$$

$$= 150 \text{ cm}$$

Height = 6cm and radius = 4cm

Slant height = $36 + 16 = 7.2 \text{ cm}$ Surface area of cone = $\pi r l$

$$= (22 / 7) \times 4 \times 7.2$$

$$= 90.5 \text{ cm}^2$$

Total surface area of the toy = $150 + 90.5$

$$= 240.5 \text{ cm}^2$$

49. Correct Option (a)**Explanation:**

Students in Commerce and Law in 2002-

$$2003 = 700 + 300 = 1000$$

Students in Arts and Science in 2003-

$$2004 = 300 + 400 = 700$$

Ratio = 10 : 7

50. Correct Option (c)**Explanation:**

Students in Science faculty in 2001-2002

$$= 600$$

Total students in 2001-2002 = 2000

Percentage of students in Science faculty

$$= 600 \times 100$$

$$= 30\%$$

$$2000$$

51. Correct Option (b)**Explanation:**

Total expenditure of P = 270

$$\text{Average expenditure} = 270 / 6 = 45$$

Total expenditure of Q = 210

$$\text{Average expenditure} = 210 / 6 = 35$$

$$\text{Difference} = 45 - 35 = 10$$

52. Correct Option (a)**Explanation:**

$$\text{In 2011, profit} = (60 \times 75) / 100 = 45$$

$$\text{Income} = 60 + 45 = 105 \text{ lakhs}$$

53. Correct Option (c)**Explanation:**

In 2016

$$\text{Profit} = 70\% \text{ of } 25 \text{ lakh} = \text{Rs } 17.5 \text{ lakhs}$$

Similarly,

$$\text{In 2014 Profit is } 20\% \text{ of } 52 = 10.4 \text{ lakh.}$$

54. Correct Option (a)**Explanation :**

In 2014,

In 2014, income of P = 50 lakhs

In 2014, income of Q = 66 lakhs

$$\text{Req percentage} = (66 - 50) / 50 \times 100 = 32\%$$

55. Correct Option (d)**Explanation:**Let there be x mints originally in thebowl. Sita took $\frac{1}{3}$, but returned 4. Sonow the bowl has $\frac{2}{3}x + 4$ mints.Fatima took $\frac{1}{4}$ of the remainder, butreturned 3. $\frac{3}{4} \left(\frac{2}{3}x + 4 \right) + 3$ so the bowl

now has mints.

Eshwari took half of remainder that is

$$\frac{1}{2} \left[\frac{3}{4} \left(\frac{2}{3}x + 4 \right) + 3 \right]$$

She returns 2, so the bowl now has

$$\frac{1}{2} \left[\frac{3}{4} \left(\frac{2}{3}x + 4 \right) + 3 \right] + 2 = 17$$

$$\Rightarrow x = 48$$

56. Correct Option (d)**Explanation:**

From figures (i), (ii), (iv) we conclude that

3, 4, 1 and 6 lie adjacent to 4. Hence, 5

must lie opposite 4 and vice-versa. In fig.

(iii), 5 is at the top and consequently, 4

must lie at the bottom face.

57. Correct Option (a)**Explanation:**

Since I paid Rs. 20 and because of lack of change, the clerk gave me Rs. 3 worth of stamps, it can be concluded that the total value of the stamp that I wanted to buy is Rs. 17. Since I ordered initially a minimum of 2 stamps of each denominations, if I buy exactly 2 stamps each, my total value is $2(5 + 2 + 1) = \text{Rs.}16$. The only way in which I make it Rs.17 is buying one more stamp of Re 1.

Hence, the total number of stamps that I ordered = $(2 + 2 + 3) = 7$. In addition, the clerk gave me 3 more.

Hence, the total number of stamps that I bought = $(7 + 3) = 10$ (viz. 2 five-rupee, 2 two-rupee and 6 one-rupee stamps).

58. Correct Option (a)**Explanation:**

Required ratio

$$= 24 \times \frac{17}{100} : 32 \times \frac{12}{100} = 17 : 16$$

59. Correct Option (b)**Explanation:**

XII student pass male of state C =

$$32 \times \frac{18}{100} \times \frac{4}{9} = 2.56 \text{ lakh}$$

$$\text{Required \%} = \frac{2.56}{32} \times 100 = 8\%$$

60. Correct Option (b)**Explanation:**

Graduate female of state C =

$$24 \times (15/100) \times (4/9) = 1.6 \text{ lakh}$$

XII std female of state C =

$$32 \times (18/100) \times (5/9) = 3.2 \text{ lakh}$$

$$\text{Required \%} = (1.6/3.2) \times 100 = 50\%$$

61. Correct Option (b)**Explanation:**

Graduates female population of state E

$$= 24 \times \frac{20}{100} \times \frac{7}{16} = 2.1$$

XII Std. female of state D =

$$32 \times \frac{12}{100} \times \frac{7}{12} = 2.24 \text{ lakh}$$

Req. ratio = 2.1 : 2.24

Ratio = 15 : 16

62. Correct Option (a)**Explanation:**

From figures (i) and (ii), we conclude that the numbers 1, 4, 2 and 5 lies adjacent to the number 6. Clearly, the number 3 lies opposite 6 and conversely 6 lies opposite 3.

63. Correct Option: (c)**Explanation :**

Number of dots is increasing in the circles in clockwise direction. Similarly, Shaded portion is moving 1 quarter in clockwise direction

64. Correct Option (d)**Explanation :**

Let no. of articles = 100 of 1 Rs. each

So, Total CP = Rs. 100

ATQ, required SP = $100 + 20 = \text{Rs.} 120$

\therefore SP of each article = Rs. 1.2

SP of 25% articles = $(1/2) \times 25 = \text{Rs.} 12.5$

Remaining articles = $100 - 25 - 5 = 70$

SP of 70 articles = $70 \times 1.2 = \text{Rs.} 84$

Total SP = $84 + 12.5 = \text{Rs.} 96.5$

Loss = $100 - 96.5 = 3.5$

Loss% = $(3.5/100) \times 100 = 3.5\%$

65. Correct Option (c)**Explanation :**

Let Mrs. Joshi's saving = 3s

Let Mrs. Joshi's expenditure = 2s

Therefore his initial total income becomes 5s

Now her income increases by 10 %

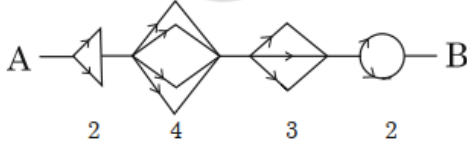
So New income will be 5.5s

Her expenditure increases by 20 % and

therefore Her new expenditure
 $= 3s \times 120\% = 3.6s$
 Therefore her new saving is
 $= 5.5s - 3.6s = 1.9s$
 Percentage change in savings
 $= \frac{(1.9 - 2s)}{2s} \times 100 = 5\%$

66. Correct Option (b)

Explanation:



Total routes = $2 \times 4 \times 3 \times 2 = 48$

67. Correct Option (b)

Explanation:

Based on the information available in the passage, one cannot say whether James Watson studied in Cambridge or not. The passage clearly mentions that Crick worked as a scientist for the British Admiralty. Refer to the line. During the war he worked as a scientist for the British Admiralty”.

68. Correct Option (d)

Explanation:

The passage only tells us that Crick believed that the working of the brain was discoverable. Based on this we cannot say whether the scientific model that Crick thinks would come about would explain the workings of the brain or not. Hence, statement 1 is incorrect. Refer to the line, “Crick was to conclude... would come about”. This does not imply that Crick developed a scientific model of consciousness. Therefore, statement 2 is also incorrect.

69. Correct Option (b)

Explanation:

- Based on the information available in the passage one cannot say who proposed the double-helical structure for DNA.
- Statement 2 is valid as the line “Where he became involved in studies on how the brain functions” makes it clear that Crick studied the functioning of the brain at the Salk institute for Biological studies.

70. Correct Option (b)

Explanation:

Total distance to be travelled by man
 $= 200 \text{ m}$
 Total relative speed = $60 + 60 = 120 \text{ km/h}$
 Hence, Required time
 $= \frac{200}{120 \times \frac{5}{18}} = 6 \text{ Seconds}$

71. Correct Option (b)

Explanation:

We cannot mint coins in B.C. while engraving B.C. on it as Christ was not born then. So, 200 BC is definitely a fake coin.

72. Correct Option (c)

Explanation:

Two people A and D are saying that A committed the crime.
 Hence, we can conclude that A committed the crime since only one is a liar.
 Now C is saying that B committed the crime which is a false statement.
 So, C is lying
 Solutions (73-74) :-
 $S = 3T$
 $T = 5Q$
 $Q = 2R$
 $P = 4Q$
 By maintaining the ratio,
 $P : Q : R : S : T = 8 : 2 : 1 : 30 : 10$

73. Correct Option (b)

Explanation:

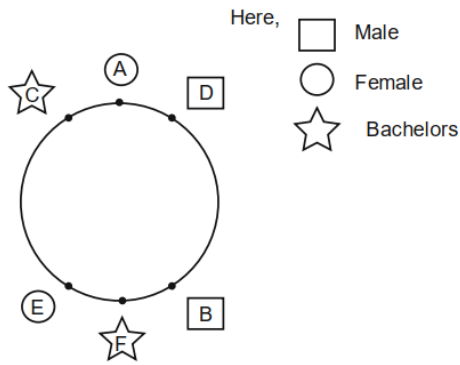
Two weights (S and T) are heavier than P.

74. Correct Option (d)

Explanation:

Total weight of R and T will be multiple of $(1 + 10 = 11)$
 So, 5720 is multiple of 11.
 Hence (d) is correct option.

Solutions (75–76) : The arrangement of the persons is given below :-



75. Correct Option (a)

Explanation:

E is the other female.

76. Correct Option (a)

Explanation:

If one starts clockwise from A, then there is no bachelor between A and her husband B.

77. Correct Option (a)

Explanation:

The passage itself implies the impact of excessive temperature. Too much heat may lead to sun burns and inhibition in productiveness in most individuals. Actually heat is necessary for existence of life on the Earth, but not in excessive amount, which in turn it causes harm to individuals.

78. Correct Option (c)

Explanation:

The passage clearly signifies the increasing heat and its impacts on living beings. The excessive heat causes global warming which in turn affects the economy of a nation. While increasing vehicles have also contributed in the enhancement of global warming.

79. Correct Option (a)

Explanation:

The given passage explicitly talks about the impact of heat in excessive amount. But in passage, nowhere is it mentioned about the government policies.

80. Correct Option (a)

Explanation:

The central theme of the passage is to show the causes of excessive heat and the rising temperature. The uncontrolled heat radiation causes the inhibition in productivity, sun burn and lowering down in agricultural output.