

CUET General Test Solved Paper-2023

Held on 7 June 2023 (Shift-III)

1. Divide 243 kg weight in three parts such that half of the first part, one-third of the second part and one-fourth of the third part are equal.

(a) 63 kg, 84 kg, 96 kg
(b) 44 kg, 93 kg, 66 kg
(c) 48 kg, 63 kg, 132 kg
(d) 54 kg, 81 kg, 108 kg

2. A person crosses a 700m long bridge in $3\frac{1}{2}$ minutes. The speed of the person in km/h is

(a) 6 (b) 8
(c) 10 (d) 12

3. A, B and C worked together for 5 days to build a wall and then B left the work. A and C together finished the remaining work in 5 days. In how days can A and C working together finish building the whole wall if B alone can do it in 25 days?

(a) $6\frac{1}{4}$ (b) 10
(c) 12 (d) $12\frac{1}{2}$

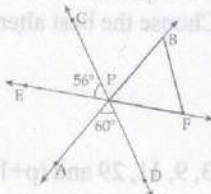
4. Involuntary actions like blood pressure, salivation and vomiting are controlled by the _____.

(a) Cerebrum (b) Cranium
(c) Spiral Cord (d) Medulla

5. How many types of muscles are there in Human body?

(a) 2 (b) 3
(c) 4 (d) 5

6. In the figure, lines AB, CD and EF intersect at P. If $\angle CPE = 56^\circ$, $\angle APD = 60^\circ$ and $PB = PF$, then what is the measure of $\angle PBF$?



(a) 56° (b) 58°
(c) 60° (d) 62°

7. A Hockey Coach is trying to put together a team of 4 players for the forthcoming tournament. For this, 7 players are available. Males P, Q and R and females S, T, U and Z. All players have equal capability and at least 2 males will be there in the team. For a team of 4, all players must be able

to play with each other. But Q cannot play with S, R cannot play with Z and S.

If U is selected and Q is Rejected, then the team will consist of which one of the following groups?

(a) P, R, S and U (b) P, R, T and U
(c) P, R, U and Z (d) P, S, U and Z

8. Who has been invited as a chief guest for India's Republic Day 2023?

(a) Mostafa Madbouly
(b) Abdel Fattah El-Sisi
(c) Joe Biden
(d) Rishi Sunak

9. The sum of two numbers is 14 and their quotient is $\frac{5}{2}$. The numbers are:

(a) 7,7 (b) 8,6
(c) 9,5 (d) 10,4

10. Match List I with List II

List I

1857 Revolt (Centres)

(A) Delhi
(B) Kanpur
(C) Jhansi
(D) Bareilly

List II

Leaders

(I) Khan Bahadur Khan
(II) Rani Lakshmi Bai
(III) Nana Sahib
(IV) Bahadur Sah and Gen, Bakhti Khan

Choose the **most appropriate** answer from the options given below:

(a) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
(b) (A)-(II), (B)-(I), (C)-(IV), (D)-(III)
(c) (A)-(IV), (B)-(III), (C)-(II), (D)-(I)
(d) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

11. Match List I with List II

List I

(Name of Prime Ministers)

(A) Atal Bihari Vajpayee
(B) P.V. Narasimha Rao

List II

(Tenure)

(I) 10 November 1990 - 21 June 1991
(II) 28 July 1979 - 14 January 1980
(III) 16 May 1996 - 1 June 1996
(IV) 21 June 1991 - 16 May 1996

Choose the **most appropriate** answer from the options given below:

- (a) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
 (b) (A)-(II), (B)-(I), (C)-(III), (D)-(IV)
 (c) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
 (d) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)

12. Read the following information carefully to answer the given question. Five friends P, Q, R, S and T are sitting on a bench and wearing different colours jacket, i.e. brown, red, yellow, white and grey (not necessarily in the order)

- (A) P is sitting next to Q and wearing red jacket.
 (B) R is sitting next to S and not wearing either brown or grey jacket.
 (C) S is not sitting with T and T is wearing brown jacket.

- (D) T is on the left end of the bench.
 (E) R is on the second position from the right.
 (F) P is on the right of Q and T, and Q is wearing grey jacket.

- (G) P and R sitting together.

- (H) S is not wearing white jacket.

What is the color of R's jacket?

- (a) Brown (b) Red
 (c) White (d) Yellow

13. Which book was written by R.K. Narayan?

- (a) The Z factor (b) Zest for life
 (c) The Dark Room (d) Black Taj

14. Find the radius of a circle in which a sector with central angle 45° has area 154 cm^2 . (Use $\pi = \frac{22}{7}$)

- (a) $14\sqrt{2} \text{ cm}$ (b) 14 cm
 (c) $7\sqrt{2} \text{ cm}$ (d) $\frac{21\sqrt{2}}{2} \text{ cm}$

15. How many times do the hour hand and minute hand of a clock coincide in a day?

- (a) 24 (b) 20
 (c) 21 (d) 22

16. _____ is the basic structural and functional unit of all known living organisms.

- (a) Bacteria (b) Tissue
 (c) Cell (d) Fungi

17. A sum of money doubles itself in 10 years on compound interest. In how many years will it become four times?

- (a) 18 (b) 20
 (c) 21 (d) 19

18. Swati throws a die twice. What is the probability that she throws atleast one six?

- (a) $\frac{1}{36}$ (b) $\frac{1}{4}$
 (c) $\frac{11}{36}$ (d) $\frac{35}{36}$

19. The altitude of an equilateral triangle having perimeter 18 m, is

- (a) $3\sqrt{3} \text{ m}$ (b) $4\sqrt{3} \text{ m}$
 (c) $\frac{\sqrt{3}}{4} \text{ m}$ (d) $5\sqrt{3} \text{ m}$

20. If some words are coded from artificial language, like-

"Pono dakb" means LIVE RIGHTY

"dakb Rnato" means LIVE PROFITABLY

"Htbl dakb" means JUST LIVE

Which code could mean "LIVE URGENTLY"?

- (a) Wakbo Htbl (b) dakb Wakbo
 (c) Htbl Pono (d) Pono Wakbo

21. Three cubes each of volume 343 cm^3 are placed side by side. What will be the surface area of the solid so formed (in cm^2)?

- (a) 343 (b) 686
 (c) 720 (d) 882

22. Find the alternative which contains figure (A) as its part



- (X) (A) (B) (C) (D)

- (a) (A) (b) (B)
 (c) (C) (d) (D)

23. Find which of the statements is/are sufficient to answer the given question.

What does 'Brown' represent in a code language?

- (A) 'hiw ka tac' means 'Brown and Grey' in that code language.

- (B) 'ma ta da' means 'you are Green' in that code language.

- (C) 'ka da rac' means 'you can Brown' in that code language.

- (a) Only (A) and (C) (b) Only (A) and (B)

- (c) Only (B) and (C) (d) All (A), (B) and (C)

24. There is a certain relationship between two given numbers on one side of a and one number is given on another side of :: while another number is to be found from the given alternatives, having same relationship with this number as the numbers of the given pair. Choose the best alternative.

22: 8 :: 55: ?

- (a) 18 (b) 19
 (c) 20 (d) 21

25. The average of the numbers 5, 3, 9, 11, 29 and (p+1) is 12. The average increases by 2 when the numbers (q-5) and (q+11) are also included. Find the value of q.

- (a) 12 (b) 14
 (c) 17 (d) 18

26. The area (in sq units) of the triangle by joining the points (3,0), (0,6) and (-5,0) is

- (a) 6 (b) 12
 (c) 24 (d) 48

27. Match List I with List II

List I

(Jain Tirthan Karas)

- (A) Rishabha
(B) Mahavira
(C) Pershwanath
(D) Ajitnath

List II

(Symbolic Representation)

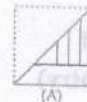
- (I) Lion
(II) Elephant
(III) Bull
(IV) Serpent

Choose the **most appropriate** answer from the options given below:

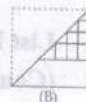
- (a) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)
(b) (A)-(I), (B)-(IV), (C)-(II), (D)-(III)
(c) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
(d) (A)-(I), (B)-(IV), (C)-(III), (D)-(II)
28. If AMAZON is coded as ZNZALM, then how word FLIPKART will be coded as?
(a) UORKZIPG (b) UORKPZIG
(c) UROKPIZG (d) UROUPZIG
29. The speed of a boat in still water is 5km/h. If it can travel 26 km downstream and 14 km upstream in the same time, then the speed of the stream is
(a) 1.5 km/h (b) 2km/h
(c) 2.5 km/h (d) 3km/h
30. A coal is priced at ₹6000. In the sale, its price is reduced by 25%. After the sale, its price will be increased by 25% of the reduced price. What will be the price of the coal (in ₹) after the sale?
(a) 5265 (b) 5625
(c) 6125 (d) 6000
31. Indira Gandhi National Centre for Art was established in the year _____.
(a) 1985 (b) 1986
(c) 1987 (d) 1988
32. A man invested on simple interest, $\frac{1}{4}$ of his capital at 7% p.a., another $\frac{1}{4}$ of the capital of 8% p.a. and the remaining capital at 10% p.a. He earned Rs. 700 as interest in one year. Find his total capital invested.
(a) Rs. 6000 (b) Rs. 7000
(c) Rs. 8000 (d) Rs. 9000
33. If mode and mean of a data are 18 and 21 respectively, then median of the data is
(a) 60 (b) 19.5
(c) 20 (d) 30
34. Find the next term in given series.
2, 5, 10, 17, 26, ?
(a) 35 (b) 36
(c) 37 (d) 47
35. Figure out from amongst the four alternatives as to how the pattern would appear when the transparent sheet is folded at the dotted line.



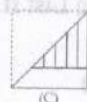
Transparent Sheet



(A)



(B)



(C)



(D)

- (a) (A) (b) (B)
(c) (C) (d) (D)
36. Sunita rode her scooter Northward, then turned left and then again rode to her left 4 km. She found herself exactly 2 km. West to her starting point. How far did she ride Northwards initially?
(a) 5 km (b) 6 km
(c) 4 km (d) 2 km
37. Which was the first state to establish Panchayati Raj system in India?
(a) Rajasthan (b) Uttar Pradesh
(c) Maharastra (d) Gujarat
38. Match List I with List II
- | List I | List II |
|--------------------------|-----------------------|
| (Exponents) | (Musical Instruments) |
| (A) Pt. Ravi Shankar | (I) Sarod |
| (B) Zakir Hussain | (II) Sitar |
| (C) Ustad Ali Akbar Khan | (III) Shehnai |
| (D) Ustad Bismillah Khan | (IV) Tabla |
- Choose the **most appropriate** answer from the options given below:
- (a) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)
(b) (A)-(III), (B)-(IV), (C)-(I), (D)-(II)
(c) (A)-(II), (B)-(IV), (C)-(III), (D)-(I)
(d) (A)-(IV), (B)-(II), (C)-(III), (D)-(I)
39. 19th term of the A.P. : 10, 7, 4, is
(a) - 47 (b) - 44
(c) - 10 (d) - 35
40. Anuj notices that the reflection of the hands of the wall clock in a mirror is showing the time to be 6 hours 15 minutes. What is the actual time shown by the clock?
(a) 5:45 (b) 5:15
(c) 6:45 (d) 6:15
41. Given below are one statement and one assumption:
Statement: Ashish wrote a second letter to his father after two months when he did not receive any reply of the first letter.
Assumption:
(I) Ashish's father did not receive the letter.
(II) His father promptly sends reply to his letters.
Which Assumption is implicit on the basis of given statement?
(a) Only (I) is implicit
(b) Only (II) is implicit
(c) Both (I) and (II) are implicit
(d) Either I or II is implicit

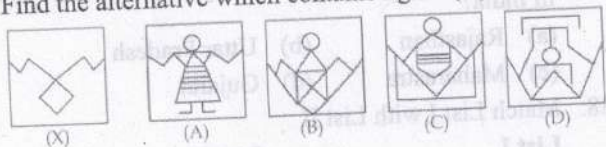
42. Match List I with List II.

List I (Currency)	List II (Country)
(A) Euro	(I) Iceland
(B) Riel	(II) Turkey
(C) Krona	(III) Cambodia
(D) Lira	(IV) Belgium

Choose the **correct** answer from the options given below:

- (a) (A)-(I), (B)-(II), (C)-(III), (D)-(IV)
 (b) (A)-(II), (B)-(III), (C)-(IV), (D)-(I)
 (c) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)
 (d) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

43. Find the alternative which contains figure (A) as its part.



- (a) (A) (b) (B)
 (c) (C) (d) (D)

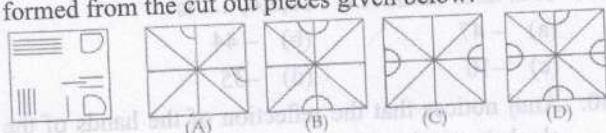
44. Who was the founder of Arya Samaj?

- (a) Raja Ram Mohan Roy
 (b) Swami Vivekananda
 (c) Swami Dayanand Saraswati
 (d) Keshab Chandra Sen

45. 'Tower of silence' is situated in which State/UT of India?

- (a) Gujarat (b) Maharashtra
 (c) Delhi (d) Rajasthan

46. Among the four answer figures which one can be formed from the cut out pieces given below:



- (a) (A) (b) (B)
 (c) (C) (d) (D)

47. Choose the alternative which most closely resembles the mirror image of the given combination. **MARKER**

- (a) **MARKER** (b) **MARKER**
 (c) **MARKER** (d) **MARKER**

48. Which statements are true?

- (A) Hecataeus is known as the father of Geography.
 (B) Aristotle is known as the father of Geography.
 (C) Historia Naturalia is the famous book in Pliny.
 (D) Historia Naturalia is the famous book of Thalys.
 (E) Hippaschus is known as the father of Geography.

Choose the **most appropriate** answer from the options given below:

- (a) (E) and (A) Only (b) (A) and (C) Only
 (c) (B) and (C) Only (d) (D) and (E) Only

49. Who amongst the following leader have launched the newspaper called "Kesari"?

- (a) Bal Gangadhar Tilak
 (b) Lala Lajpat Rai
 (c) Bipin Chandra Pal
 (d) Sri Aurobindo Ghosh

50. The Vice-Chancellor of State University is appointed by which authority?

- (a) President (b) Prime Minister
 (c) Governor (d) Home Minister

51. Sumit sold a television at ₹15,500 and suffered a loss of 20%. At what price did he buy the television?

- (a) ₹21,350 (b) ₹18,730
 (c) ₹19,375 (d) ₹12,916

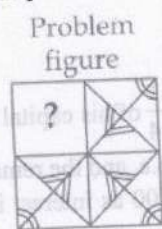
52. If $\cos(x-y) = \frac{\sqrt{3}}{2}$ and $\sin(x+y) = 1$, where $x > y$, then the value of y is:

- (a) 0° (b) 30°
 (c) 60° (d) 90°

53. _____ cell converts light energy directly into electric energy.

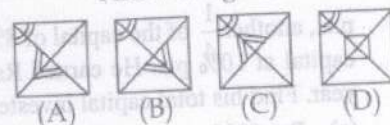
- (a) Photovoltaic
 (b) Photoelectric
 (c) Photothermal
 (d) Photocatalytic

54. Select a figure from the given four alternatives, which when placed in the blank space of problem figure would complete the pattern.



Problem figure

Answer figures



- (a) (A) (b) (B)
 (c) (C) (d) (D)

55. 17th Pravasi Bhartiya Diwas in the year 2023 was held in

- (a) Mumbai
 (b) Delhi
 (c) Ahmedabad
 (d) Indore

56. If February 1, 2004 was Wednesday, Then which Day was March 3, 2004?

- (a) Sunday (b) Monday
 (c) Friday (d) Saturday

57. Find odd one out in the given series.

6, 24, 60, 120, 211, 336

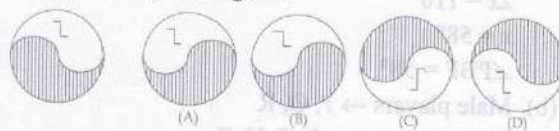
- (a) 120 (b) 211
(c) 336 (d) 60

58. Simplify

$$\frac{\sqrt{81} + \sqrt[3]{64}}{\sqrt{3^3} + 4^2 + \sqrt[3]{216}}$$

- (a) $\frac{17}{7}$ (b) $\frac{13}{7}$
(c) $\frac{12}{13}$ (d) $\frac{13}{17}$

59. Choose alternative which most closely resembles the water image of the given figures.



- (a) (A) (b) (B)
(c) (C) (d) (D)

60. X-rays were discovered by —

- (a) Goldstein
(b) William Crooke
(c) Roentgen
(d) Chadwick

Hints & Explanations

1. (d) Let the three parts be a, b, c respectively

According to questions

$$\frac{1}{2}a = \frac{1}{3}b = \frac{1}{4}c$$

$$\frac{a}{b} = \frac{2}{3} \text{ and } \frac{b}{c} = \frac{3}{4}$$

So, $a : b : c = 2 : 3 : 4$.

Parts in which weight is divided

Let, $a = 2x$ $b = 3x$ $c = 4x$ Then, $2x + 3x + 4x = 243$

$$9x = 243$$

$$x = 27$$

So, $a = 2 \times 27 \rightarrow 54 \text{ kg}$ $b = 3 \times 27 \rightarrow 81 \text{ kg}$ $c = 4 \times 27 \rightarrow 108 \text{ kg}$ 2. (d) Time taken by person in seconds $= \frac{7}{2} \times 60 = 210 \text{ sec}$

$$\text{Speed of person in m/sec} = \frac{700}{210} \text{ m/sec.}$$

$$\text{Speed in km/hr} = \frac{700}{210} \times \frac{18}{5} = 12 \text{ km/hr}$$

3. (d) $(A + B + C) 5 + (A + C) 5 = B \times 25$

$$5A + 5B + 5C + 5A + 5C = 25B$$

$$10A + 5B + 10C = 25B$$

$$10(A + C) = 20B$$

$$A + C = \frac{20B}{10}$$

$$A + C = 2B$$

A and C working together finish building the whole

$$\text{wall} \Rightarrow \frac{25B}{2B} \Rightarrow 12\frac{1}{2} \text{ days}$$

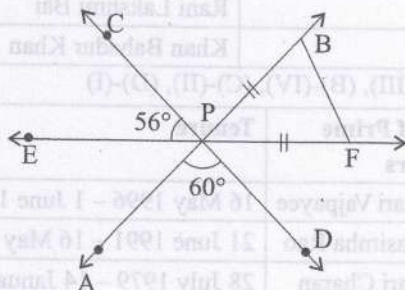
4. (d) **Medulla**

The Medulla oblongata is at the base of the brain and they further get connected to the spinal cord. This part of the brain is responsible for controlling the involuntary actions like blood pressure, salivation and vomiting.

5. (b) 3

The human physiology is very complex; there are majorly three types of muscles found in human body: skeletal, cardiac and smooth muscle.

6. (b)



$$\angle APD = \angle CPB \quad (\text{Vertically opp. angle})$$

$$\therefore \angle CPB = 60^\circ$$

$$PB = PF \quad (\text{Given})$$

$\therefore \angle PBF = \angle PFB$ (Angles opp. to equal angles are equal)

$$\text{and } \angle CPE + \angle CPB + \angle BPF = 180^\circ$$

($\because$ linear pair angle)

$$\therefore \angle BPF = 180^\circ - (56^\circ + 60^\circ) = 64^\circ$$

In $\triangle PBF$

$$\angle PBF + \angle BPF + \angle PFB = 180^\circ$$

$$\text{Let } \angle PBF = x$$

$$\text{Then } 2x + 64^\circ = 180^\circ$$

$$2x = 116^\circ$$

$$x = 58^\circ$$

$$\angle PBF = 58^\circ$$

7. (b) Male players $\rightarrow$ P, Q, R

Female players = S, T, U, Z

Atleast two males will be there in team = P, R.

Remaining two female player will be = T, U

Because if Z and S is selected than R is not going to play

So, team will be = P, R, T and U.

8. (b) **Abdel Fateh El- Sisi**

Abdel Fateh El-Sisi is the current serving President of Egypt. He was the chief guest of honour for the celebration of Republic Day 2023. He was the first Egyptian President who has been invited as chief guest for the event.

9. (d) Using option method

Option (d) 10, 4

Sum of these number = $10 + 4 = 14$

Quotient will be $\frac{10}{4} = 2.5$ or $\frac{5}{2}$

10. (c) (A) - (IV), (B)-(III), (C)-(II), (D)-(I)

The 1857 Revolt has proved to be the first spark of the Indian National Movement. The revolt had many centres along with their leaders.

1857 Revolt (Centres)	Leaders
Delhi	Bahadur Shah and Gen. Bakht Khan
Kanpur	Nana Sahib
Jhansi	Rani Lakshmi Bai
Bareilly	Khan Bahadur Khan

11. (c) (A)-(III), (B)-(IV), (C)-(II), (D)-(I)

Name of Prime Ministers	Tenure
Atal Bihari Vajpayee	16 May 1996 – 1 June 1996
P.V Narasimha Rao	21 June 1991 – 16 May 1996
Chaudhari Charan Singh	28 July 1979 – 14 January 1980
Chandra Shekhar	10 November 1990 – 21 June 1991

12. (c)
- | | | | | |
|----------------|---------------|--------------|----------------|-----------------|
| T | Q | P | R | S |
| (Brown jacket) | (Grey jacket) | (Red jacket) | (White jacket) | (Yellow jacket) |
- R is wearing white jacket.

13. (c) **The Dark Room**

The novel The Dark Room is written by R.K Narayan. Other famous work of R.K Narayan is Malgudi Days, The Guide, Swami and Friends, The Financial Expert etc.

14. (a) Area of sector = $\frac{\theta}{360^\circ} \times \pi r^2$

$$\frac{45^\circ}{360^\circ} \times \frac{22}{7} \times r^2 = 154 \text{ cm}^2$$

$$r^2 = 8 \times 7 \times 7$$

$$r = 14\sqrt{2} \text{ cm.}$$

15. (d) Coincide means making angle $0^\circ/360^\circ$.

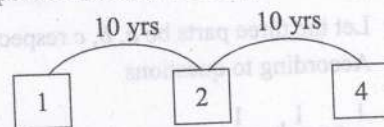
$\therefore$ 22 times min. hand and hour hand coincide in a day.

16. (c) **Cell**

Cell is the smallest unit that can live on its own and that makes up all living organisms and the tissues of the body. A cell has three main parts: the cell membrane, the nucleus, and the cytoplasm.

17. (b) Let the principal be Rs. 1

In Compound Interest, we used geometric progression



So in 20 yrs sum of money becomes 4 times.

18. (c) Possible outcomes $\Rightarrow$ (1, 6), (2, 6), (3, 6), (4, 6), (5, 6), (6, 6), (6, 1), (6, 2), (6, 3), (6, 4), (6, 5)

Total outcomes $\Rightarrow$ 36

$$\text{Probability of atleast one six} = \frac{11}{36}$$

19. (a) The perimeter of equilateral triangle = 18 m

$$\text{Side of a equilateral triangle} = \frac{18}{3} = 6 \text{ m}$$

$$\text{The altitude of an equilateral triangle} = \text{side} \times \frac{\sqrt{3}}{2}$$

$$\Rightarrow 6 \times \frac{\sqrt{3}}{2} \Rightarrow 3\sqrt{3} \text{ m}$$

20. (b) Pono RIGHTY

Rnato PROFITABLY

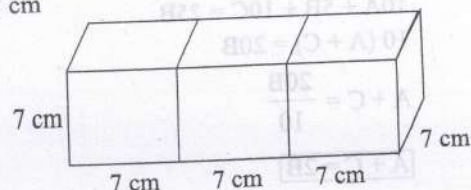
Htbl

dakb Wakbo - LIVE URGENTLY

21. (b) Volume of cube = 343 cm^3

$$\text{Side of cube} = \sqrt[3]{343}$$

$$\Rightarrow 7 \text{ cm}$$



$$l = 7 + 7 + 7 = 21 \text{ cm}$$

$$b = 7 \text{ cm}$$

$$h = 7 \text{ cm}$$

$$\text{total surface area of the solid} \Rightarrow 2(lb + bh + hl)$$

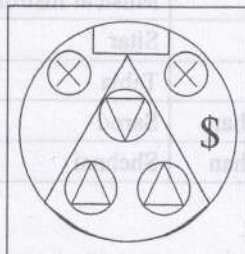
$$\Rightarrow 2(21 \times 7 + 7 \times 7 + 7 \times 21)$$

$$\Rightarrow 2(147 + 49 + 147)$$

$$\Rightarrow 2(294 + 49)$$

$$\Rightarrow 2 \times 343 \Rightarrow 686 \text{ cm}^2$$

22. (c)



Option (c) contains figure (A) as its part.

23. (a)

(A) hiw [Ka] tac — [Brown] and Grey

(B) ma ta da - you are green

(C) [Ka] da rac — you can [Brown]

Statements (A) and (C) are sufficient to answer the given question.

24. (b) $8 \times 3 - 2 = 22$

Similarly,

$$x \times 3 - 2 = 55$$

$$3x = 57$$

$$x = 19$$

25. (c) The average of the numbers 5, 3, 9, 11, 29 and $(p + 1)$ is = 12

$$\text{The total sum of the numbers are} = 12 \times 6 = 72$$

$$5 + 3 + 9 + 11 + 29 + (P + 1) = 72$$

$$p + 58 = 72$$

$$p = 14$$

According to question

Average increased by 2 when: $(q + 11)$ and $(q - 5)$ are included.

$$\text{New average} = 14$$

$$\text{Total sum of numbers} 8 \times 14$$

$$72 + (q - 5) + (q + 11) = 8 \times 14$$

$$2q + 78 = 112$$

$$2q = 34$$

$$q = 17$$

26. (c) Triangle formed by joining the points

$$(x_1, y_1), (x_2, y_2), (x_3, y_3)$$

$$(3, 0), (0, 6) \text{ and } (-5, 0)$$

Area of triangle

$$= \frac{1}{2} [y_1(x_2 - x_3) + y_2(x_3 - x_1) + y_3(x_1 - x_2)]$$

$$= \frac{1}{2} [0(0 - (-5)) + 6(-5 - 3) + 0(3 - 0)]$$

$$= \frac{1}{2} [0 + (-48) + 0]$$

$$= 24 \text{ square units}$$

27. (a) (A)-(III), (B)-(I), (C)-(IV), (D)-(II)

The Tirthankaras are known as the Jina or the conquerors of all inclinations in Jainism. 24 Tirthankaras exist. The words "Teertha" and "Samsara" are combined to form the word "Tirthankara." Samsara represents the worldly life, whereas Teertha is a holy place.

Jain Tirthankaras	Symbolic Representation
Rishabha	Bull
Mahavira	Lion
Parshavanath	Serpent
Ajithnath	Elephant

28. (b)

A	M	A	Z	O	N
(1)	(13)	(1)	(26)	(15)	(14)
		opposite			
Z	N	Z	A	L	M
(26)	(14)	(26)	(1)	(12)	(13)

Similarly

F	L	I	P	K	A	R	T
(6)	(12)	(9)	(16)	(11)	(1)	(18)	(20)
		opposite					
U	O	R	K	P	Z	I	G
(21)	(15)	(18)	(11)	(16)	(26)	(9)	(7)

29. (a) The speed of boat in still water is = 5 km/h

 $\therefore$ It can travel 26 km down stream and 14 km up stream in the same time

$$\frac{26}{5 + y} = \frac{14}{5 - y}$$

$$130 - 26y = 70 + 14y$$

$$60 = 40y$$

$$y = \frac{3}{2}$$

$$y = 1.5 \text{ km/h}$$

The speed of the stream is = 1.5 km/h

30. (b) Cost price of a coat is ₹ 6,000

According to question

$$\text{The price of the coat after the sale} = 6000 \times \frac{75}{100} \times \frac{125}{100}$$

$$\Rightarrow ₹ 5,625$$

31. (a) 1985

Indira Gandhi National Centre for Art was established in 1985. The Centre for the Arts is visualised as a

centre encompassing the study and experience of all the arts – each form with its own integrity, yet within a dimension of mutual interdependence, interrelated with nature, social structure and cosmology.

32. (c) Let the total capital invested = ₹ x

According to question

$$\frac{x}{4} \times \frac{7}{100} + \frac{x}{4} \times \frac{8}{100} + \left(x - \frac{x}{4} - \frac{x}{4}\right) \times \frac{10}{100} = 700$$

$$\frac{7x}{400} + \frac{8x}{400} + \frac{x}{20} = 700$$

$$\frac{7x + 8x + 20x}{400} = 700$$

$$\frac{35x}{400} = 700$$

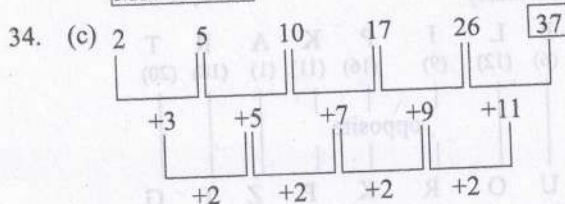
$$x = ₹ 8,000$$

Total capital invested = ₹ 8,000

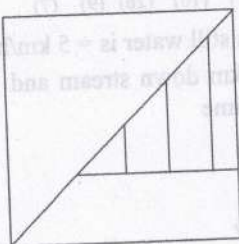
33. (c) Mode of a data = 18
mean of a data = 21
3 median = 2 mean + mode
3 median = 2 × 21 + 18

$$\text{Median} = \frac{60}{3}$$

$$\text{Median} = 20$$

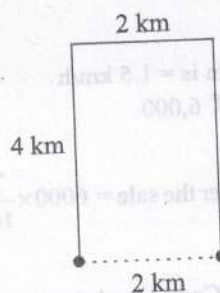


35. (a)



Option (a) would appear when the transparent sheet is folded at the dotted line.

36. (c)



She rode northwards 4 km.

37. (a) Rajasthan was the first state to establish Panchayati Raj System in India. Panchayati Raj was established in India through 73rd amendment in constitution in 1992. It decentralised power and decision making from the central and state governments.

38. (a) (A)-(II), (B)-(IV), (C)-(I), (D)-(III)

Indian landscape has been very rich in art and culture.

Exponents	Musical Instruments
Pt. Ravi Shankar	Sitar
Zakir Hussain	Tabla
Ustad Ali Akbar Khan	Sarod
Ustad Bismillah Khan	Shehnai

39. (b) A.P. = 10, 7, 4

$$a = 10$$

$$d = a_2 - a_1$$

$$d = 7 - 10$$

$$d = -3$$

$$n = 19$$

$$a_{19} = a + (n - 1)d$$

$$= 10 + (19 - 1)(-3)$$

$$= 10 - 54$$

$$a_{19} = -44$$

40. (a) The wall clock is showing the time in a mirror = 6h 15 m

The actual time shown by the clock is

$$= 11 : 60$$

$$= 6 : 15$$

$$5 : 45$$

41. (b) **Statement:** Ashish wrote a second letter to his father after two months when he did not receive any reply of the first letter.

Assumption (I): Ashish's father did not receive the letter. This Assumption either may be possible or not. This assumption is not implicit on the basis of given statement.

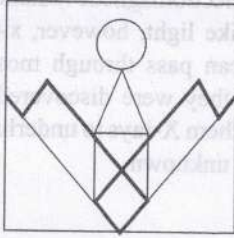
Assumption (II): His father promptly sends reply to his letters.

Ashish wrote a second letter to his father because he knows that his father promptly sends reply to him. The assumption is implicit on the basis of given statement.

42. (d) (A)-(IV), (B)-(III), (C)-(I), (D)-(II)

Currency	Country
Euro	Belgium
Riel	Cambodia
Krona	Iceland
Lira	Turkey

43. (b)

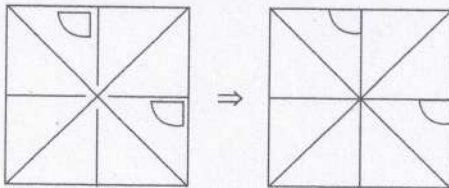


Option (b) contains figure (A) as its part.

44. (c) Arya Samaj was founded by Swami Dayanand Saraswati in 1875. The organisation voiced for causes like widow remarriage and education of girl children.

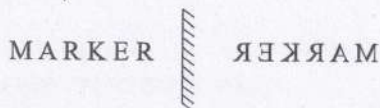
45. (b) A Zoroastrian funerary tower where excarnation rituals are carried out is called the Tower of Silence. It is located on Malabar Hills in Mumbai. The 300-year-old *dakhma* or funerary tower, located deep within a 54-acre forest, is where the bodies of deceased Zoroastrians are placed and exposed to scavenger birds, which as per their beliefs, is the most sacred way of dealing with the dead.

46. (a)



Option (a) can be formed from the cut out pieces given below.

47. (c)



48. (b) Hecataeus developed the first accurate projection of the earth, earning him the title 'Father of Geography'. His projection included grid lines that resembled the longitudes and latitudes found on maps today. *Naturalis Historia* was written by Pliny the Elder. *Naturalis Historia* is considered as one of the largest single works to have survived from the Roman Empire to the modern-day. *Naturalis Historia* comprised 37 books, organised into 10 volumes.

49. (a) Bal Gangadhar Tilak was an important figure of the Indian National Movement, he started Swadeshi Movement in India and promoted it. He has written a lot of books, his work includes *Geeta Rahasya*, *The Arctic Home in the Vedas*, *the orion* and *Kesari*.

50. (c) The Vice- Chancellor of the State University is appointed by the Governor of the state.

51. (c) Sumit sold a television at = ₹ 15,500
Suffered a loss = 20%

$$\text{He bought the television at} = \frac{15500}{80} \times 100 \\ \Rightarrow ₹ 19,375$$

$$52. (b) \cos(x-y) = \frac{\sqrt{3}}{2}$$

$$\cos(x-y) = \cos 30^\circ$$

$$x-y = 30^\circ$$

...(i)

$$\sin(x+y) = 1$$

$$\sin(x+y) = \sin 90^\circ$$

$$x+y = 90^\circ$$

...(ii)

By equation (i) and equation (ii)

$$x-y = 30^\circ$$

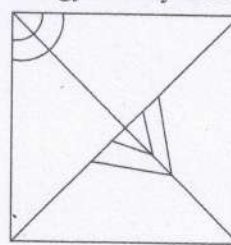
$$x+y = 90^\circ$$

$$-2y = -60$$

$$y = 30^\circ$$

53. (a) Energy is conserved when it is transferred from one form to another, energy often changes forms and many times devices are created to convert the form of energy. A Photovoltaic cell is used to convert light energy directly into electric energy.

54. (b)



Option (b) would complete the pattern.

55. (d) Pravasi Bharatiya Divas (PBD) is celebrated once in every two years to strengthen the engagement of the overseas Indian community with the Government of India and reconnect them with their roots. In 2023, the day is celebrated in Indore Madhya Pradesh with theme: "Diaspora: Reliable Partners for India's progress in Amrit Kaal"

56. (d) 1 February, 2004 - Wednesday

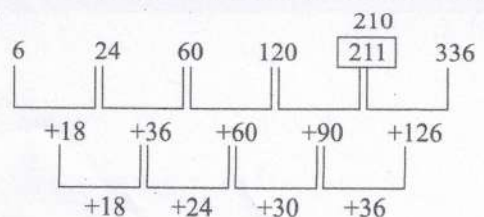
February = 29 days

March = 2 days

$$\frac{31}{7} = 3 \text{ (remaining)}$$

3 March, 2004 = Wednesday + 3 days = Saturday

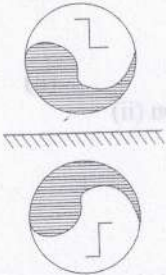
57. (b)



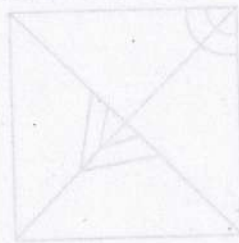
58. (b) $\frac{\sqrt{81} + \sqrt[3]{64}}{\sqrt{3^3 + 4^2} + \sqrt[3]{216}}$
 $\Rightarrow \frac{9 + 4}{\sqrt{27 + 16 + 6}}$

$\Rightarrow \frac{13}{\sqrt{49}} \Rightarrow \frac{13}{7}$

59. (c)



Energy is conserved when it is transferred from one form to another, energy often changes forms and many times devices are created to convert the form of energy. A photovoltaic cell is used to convert light energy directly into electric energy.

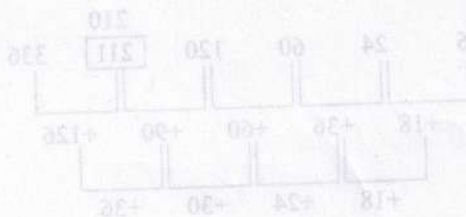


Option (b) would complete the pattern.
 Pravasi Bharatiya Divas (PBD) is celebrated once in every two years to strengthen the engagement of overseas Indian community with the Government of India and reconnect them with their roots. In 2023, the day is celebrated in Indore Madhya Pradesh with theme "Dispersed, Reliable Partners for India's progress in Aatmanirbhar".

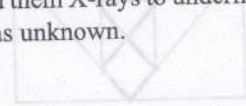
1 February 2004 - Wednesday
 February = 29 days
 March = 3 days

$\frac{31}{7} = 3 \text{ (remaining)}$

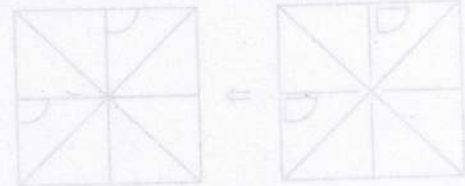
3 March 2004 = Wednesday + 3 days = Saturday



60. (c) X-rays are a form of electromagnetic radiation, similar to visible light. Unlike light, however, x-rays have higher energy and can pass through most objects, including the body, they were discovered by W.C. Röntgen. He named them X-rays to underline the fact that their nature was unknown.



- Option (b) contains figure (A) as its part.
 (c) Atiya Samaj was founded by Swami Dayanand Saraswati in 1875. The organisation voiced for causes like widow remarriage and education of girl children.
 (b) A Zoroastrian fire tower whose construction rituals are carried out is called the Tower of Silence. It is located on Malabar Hills in Mumbai.
 The 300-year-old bhawan or fire tower, located deep within a 24-acre forest, is where the bodies of deceased Zoroastrians are placed and exposed to scavenger birds, which as per their beliefs, is the most sacred way of dealing with the dead.



Option (a) can be formed from the cut out pieces given below.

MARKER

- (b) Hecataeus developed the first accurate projection of the earth, earning him the title 'Father of Geography'. His projection included grid lines that resembled the longitudes and latitudes found on maps today.
 'Naturalis Historia', was written by Pliny the Elder. 'Naturalis Historia' is considered as one of the largest single works to have survived from the Roman Empire to the modern day. 'Naturalis Historia' comprised 37 books organised into 10 volumes.
 (a) Bal Gangadhar Tilak was an important figure of the Indian National Movement. He started 'Swadeshi Movement' in India and promoted it. He has written a lot of books, his work includes 'Gita Rahasya', 'The Arctic Home in the Vedas', 'The Orion and Keshavn'.
 (c) The Vice-Chancellor of the State University is appointed by the Governor of the state.