Corporate Office : Aakash Tower, 8, Pusa Road, New Delhi-110005 | Ph.: 011-47623456

## Answers \& Solutions

Time : 60 min .

## CUET UG-2023

## (General Test)

## IMPORTANT INSTRUCTIONS:

1. The duration of this test is 60 minutes.
2. The test contains 60 questions out of which 50 questions need to be attempted.
3. Marking Scheme of the test:
a. Correct answer or the most appropriate answer: Five marks ( +5 )
b. Any incorrect option marked will be given minus one mark ( -1 ).
c. Unanswered/Marked for Review will be given no mark (0).

Choose the correct answer :

1. How many terms are there in the A.P. 3, 7, 11,
$\qquad$ 407?
(1) 100
(2) 101
(3) 99
(4) 102

Answer (4)
Sol. Given 3, 7, 11, ... 407
So given sequence in A.P, with $a=3, d=4$
Now $\mathrm{T}_{\mathrm{n}}=407$
$\Rightarrow \mathrm{a}+(\mathrm{n}-1) \mathrm{d}=407$
$\Rightarrow 3+(n-1) 4=407$
$\Rightarrow \mathrm{n}=102$
2. Match List I with List II

| List I |  | List II |  |
| :--- | :--- | :--- | :--- |
| A. | Blue <br> Revolution | I. | Increase in crop yield <br> and Agricultural <br> Products |
| B. | White <br> Revolution | II. | Increase in Oil-Seeds <br> Production |
| C. | Yellow <br> Revolution | III. | Increase of Fish <br> Production |
| D. | Green <br> Revolution | IV. | Increase in the field of <br> milk production |

Choose the most appropriate answer from the options given below:
(1) A-IV, B-III, C-II, D-I
(2) A-III, B-IV, C-II, D-I
(3) A-I, B-III, C-II, D-IV
(4) A-III, B-I, C-II, D-IV

## Answer (2)

## Sol.

| List I |  | List II |  |
| :--- | :--- | :--- | :--- |
| A. | Blue <br> Revolution | III. | Increase of fish <br> production |
| B. | White <br> Revolution | IV. | Increase in the field of <br> milk production |
| C. | Yellow <br> Revolution | II. | Increase in oil-seeds <br> production |
| D. | Green <br> Revolution | I. | Increase in crop yield <br> and agricultural <br> products |

Option :- (2) is correct
3. If selling price of 80 articles is equal to the cost price of 100 articles, then find the gain percentage
(1) $30 \%$
(2) $25 \%$
(3) $40 \%$
(4) $50 \%$

## Answer (2)

Sol. $100 \times \mathrm{CP}=80 \times \mathrm{SP}$
$\frac{S P}{C P}=\frac{100}{80}=\frac{5}{4}$
gain $\%=\left(\frac{5}{4}-1\right) \times 100$

$$
=\frac{1}{4} \times 100=25 \%
$$

4. What is the probability that any non-leap year will have 53 Sundays?
(1) $\frac{1}{53}$
(2) $\frac{2}{53}$
(3) $\frac{1}{7}$
(4) $\frac{2}{7}$

## Answer (3)

Sol. Any non-leap year has 365 days $=52$ weeks +1 day extra.

In 52 weeks 52 Sundays are confirmed and 1 extra day will be any day of 7 days of week.

So probability of getting Sunday in this week $=\frac{1}{7}$.
5. A man walks 2 km towards East and then he turns to South and walks 6 km . Again he turns to East and walks 4 km , after this he turns to North and walks 14 km . How far is he from his starting point?
(1) 10 km
(2) 15 km
(3) 20 km
(4) 25 km

## Answer (1)

Sol. Using Pythagoras theorem

$$
\begin{aligned}
& \mathrm{H}^{2}=\mathrm{P}^{2}+\mathrm{B}^{2} \\
& \mathrm{H}^{2}=64+36
\end{aligned}
$$


$H^{2}=100$
$H=\sqrt{100}$
$\mathrm{H}=10 \mathrm{~km}$.
So, he is 10 km away from his starting point.
6. Statements.
I. Some cars are black
II. Some Lions are cars

Conclusion
I. Some blacks are Lions
II. No black is Lion
(1) Only I follow
(2) Only II follow
(3) Either I or II follows
(4) None follows

## Answer (4)

Sol.

I. $X \rightarrow$ No relation given between black and Lion in statement.
II. $X \rightarrow$ There is no any negative statement.
7. Find a single equivalent increase if the number is successively increased by $20 \%, 25 \%$ and $30 \%$
(1) $75 \%$
(2) $85 \%$
(3) $95 \%$
(4) $35 \%$

## Answer (3)

Sol. Let original number $=100$
Then after $20 \%$ it will be $=120$
After $25 \%$ increase it will be $=120 \times 125 \%=150$
After $30 \%$ increase it will be $=150 \times 130 \%=195$
So, single increase $=\frac{195-100}{100} \times 100=95 \%$
8. What is the smallest square number which is divisible by 4,6 and 32 ?
(1) 100
(2) 196
(3) 96
(4) 576

## Answer (4)

Sol. L.C.M of 4,6 and $32=96=2 \times 2 \times 2 \times 2 \times 2 \times 3$
2 and 3 are not in pairs, so we multiply them to 96
$\Rightarrow 96 \times 2 \times 3=576$
9. Find out which of the figures out of given option can be formed from the pieces given in fig (X)


Fig (X)
(1)

(2)

(3)

(4) None of these

## Answer (2)

Sol. By observation
10. Statement I: Constitution is the frame work for the governance of a country which delegates power and authority to the executive, legislative and judiciary.

Statement II : It serves a country in maintaining good relationships with her neighbouring countries.

In the light of the above statements, choose the most appropriate answer from the options below :
(1) Both Statement I and Statement II are correct
(2) Both Statement I and Statement II are incorrect
(3) Statement I is correct but Statement II is incorrect
(4) Statement I is incorrect but Statement II is correct

## Answer (1)

Sol. Statement-I : Constitution of India provides for delegation of power and authority among three organs of state viz executive, legislative and judiciary. Thus, it is true statement

Statement-II : Constitution through Article 51 provides for maintenance of international peace and good relationships with her neighbouring countries.

Thus, this statement is also true.
11. What sum of money will amount to Rs. 520 in 5 years and to Rs. 568 in 7 years on simple interest?
(1) Rs. 400
(2) Rs. 120
(3) Rs. 510
(4) Rs. 220

## Answer (1)

Sol. Amount in 5 years = Rs. 520
Amount in 7 years $=$ Rs. 568

Interest of one year $=\frac{48}{2}=$ Rs. 24
Interest of 5 years $=24 \times 5=$ Rs. 120
So sum $=520-120=$ Rs. 400
12. In figure out which Number indicate doctors who are not married?

(1) 2
(2) 4
(3) 1
(4) 6

Answer (4)
Sol.


Professor
$(5+1)$ number indicates doctors who are not married.
13. Match List I with List II

| List I <br> Scientists |  | List II <br> Discoveries |  |
| :--- | :--- | :--- | :--- |
| A. | Har Gobind <br> Khorana | I. | Discovery of Zero |
| B. | C.V Raman | II. | Genetic <br> composition of cell |
| C. | Jagdish <br> Chandra Bose | III. | Scattering of light |
| D. | Aryabhata | IV. | Measurement of <br> plant growth |

Choose the most appropriate answer from the options given below:
(1) A-II, B-III, C-I, D-IV
(2) A-III, B-II, C-IV, D-I
(3) A-II, B-III, C-IV, D-I
(4) A-I, B-III, C-II, D-IV

Answer (3)
Sol.

| List-I |  | List-II |  |
| :--- | :--- | :--- | :--- |
| A. | Har Gobind <br> Khorana | II. | Genetic <br> composition of cell |
| B. | C.V. Raman | III. | Scattering of light |
| C. | Jagdish <br> Chandra Bose | IV. | Measurement of <br> plant growth |
| D. | Aryabhata | I. | Discovery of zero |

14. A bag contains 5 black, 3 white and 2 red balls. Three balls are drawn in succession. What is the probability that the first ball is red, the second ball is black and the third ball is white?
(1) $\frac{1}{24}$
(2) $\frac{3}{10}$
(3) $\frac{1}{10}$
(4) $\frac{1}{2}$

Answer (1)
Sol. $\frac{2}{10} \times \frac{5}{9} \times \frac{3}{8}=\frac{1}{24}$
15. A and B can do a work in 9 days and 12 days respectively. If they work on alternate days starting with A, then in how many days will the work be completed?
(1) 36 days
(2) 10 days
(3) $10 \frac{1}{4}$ days
(4) 13 days

## Answer (3)

Sol.

$\frac{36}{7}=5(1 \mathrm{rem})$ means 10 days and 1 unit work is remaining which is done by $\mathrm{A}=\frac{1}{4}$

So, total to be taken $=10 \frac{1}{4}$ days.
16. If the median of $\frac{x}{5}, x, \frac{x}{4}, \frac{x}{2}$ and $\frac{x}{3}$ (where $x>0$ ) is 8 , then the value of $x$ will be
(1) 24
(2) 32
(3) 8
(4) 16

Answer (1)
Sol. Arrange in ascending order $\rightarrow \frac{x}{5}, \frac{x}{4}, \frac{x}{3}, \frac{x}{2}, x$

Middle value $=\frac{x}{3}=8$
$\Rightarrow x=24$.
17. Which of the following is not a 'state'?
(1) Nagaland
(2) Manipur
(3) Ladakh
(4) Meghalaya

## Answer (3)

Sol. Among the given options,
Ladakh is correct because it has been made a Union Territory by The Jammu and Kashmir Reorganisation Act 2019.
18. Find the next term in the alpha-numeric series D4T, F9R, H20P, J43N.
(1) L 90 M
(2) N 90 N
(3) L 90 L
(4) J 90 L

Answer (3)
Sol. D 4 T, F 9 R, H 20 P, J 43 N, L 90 L
First letter $=+2$
Middle number

$$
=(\times 2+1),(\times 2+2),(\times 2+3),(\times 2+4)
$$

Last letter = -2
19. Match List I with List II

| List I <br> Deficiency |  | List II <br> Diseases |  |
| :--- | :--- | :--- | :--- |
| A. | Insulin | I. | Kwashiorkor |
| B. | Protein | II. | Scurvy |
| C. | Thyroxin | III. | Diabetes |
| D. | Vitamin C | IV. | Goitre |

Choose the correct answer from the options given below:
(1) A-III, B-I, C-IV, D-II
(2) A-I, B-III, C-IV, D-II
(3) A-II, B-I, C-IV, D-III
(4) A-IV, B-III, C-II, D-I

## Answer (1)

Sol.

| List-I |  | List-II |  |
| :--- | :--- | :--- | :--- |
| A. | Insulin | III. | Diabetes |
| B. | Protein | I. | Kwashiorkor |
| C. | Thyroxin | IV. | Goitre |
| D. | Vitamin C | II. | Scurvy |

20. The point $(-2,3)$ lies in which quadrant?
(1) 1
(2) II
(3) III
(4) IV

Answer (2)
Sol. $(-2,3)$ here $x$ is negative and $y$ is positive.
So this point lies in $2^{\text {nd }}$ quadrant.
21. Find out which of the answer figures (1), (2), (3) and (4) completed the figure matrix?

(1)

(2)

(3)

(4)


Answer (3)
Sol. By observation
22. Which of the following speeds is the least?
(1) 50 meter/second
(2) 50 meter/minute
(3) $70 \mathrm{~km} / \mathrm{hour}$
(4) $5 \mathrm{~km} /$ minute

## Answer (2)

Sol. $50 \mathrm{~m} / \mathrm{s} \rightarrow 180 \mathrm{~km} / \mathrm{h}$
$50 \mathrm{~m} / \mathrm{min} \rightarrow 3 \mathrm{~km} / \mathrm{h}$
$70 \mathrm{~km} / \mathrm{h} \rightarrow 70 \mathrm{~km} / \mathrm{h}$
$5 \mathrm{~km} / \mathrm{min} \rightarrow 300 \mathrm{~km} / \mathrm{h}$
So $50 \mathrm{~m} / \mathrm{min}$ is the least
23. In a class boys stand in a single line. One of the boys is seventeenth in order from both the ends. How many boys are in the class?
(1) 34
(2) 33
(3) 32
(4) 27

Answer (2)
Sol. Rank ${ }_{1} \rightarrow 17$
Rank ${ }_{2} \rightarrow 17$

$$
\begin{aligned}
\text { Total } & =\left(R_{1}+R_{2}\right)-1 \\
& =34-1=33
\end{aligned}
$$

24. Match List I with List II Cities with their nicknames

| List I <br> Cities |  | List II <br> Nickname |  |
| :--- | :--- | :--- | :--- |
| A. | Nagpur | I. | Diamond City |
| B. | Surat | II. | Pink City |
| C. | Jaisalmer | III. | Orange City |
| D | Jaipur | IV. | Golden City |

Choose the most appropriate answer from the option given below:
(1) A-III, B-I, C-IV, D-II
(2) A-I, B-III, C-IV, D-II
(3) A-III, B-I, C-II, D-IV
(4) A-II, B-I, C-III, D-IV

Answer (1)
Sol.

| List-I <br> Cities |  | List-II <br> Nickname |  |
| :--- | :--- | :--- | :--- |
| A. | Nagpur | III. | Orange City |
| B. | Surat | I. | Diamond City |
| C. | Jaisalmer | IV. | Golden City |
| D | Jaipur | II. | Pink City |

25. Consider the Diagram.


500 Candidates appeared in an Examination comprising test in English, Hindi and Maths. The Diagram gives number of students who failed in different tests. What is the\% percentage of student who failed at least two subjects?
(1) $6.8 \%$
(2) $7.8 \%$
(3) $1.0 \%$
(4) $0.078 \%$

## Answer (2)

Sol. No. of students failed in atleast two subjects

$$
=10+5+12+12=39
$$

Percentage $=\frac{39}{500} \times 100=7.8 \%$
26. The area of a circle is numerically equal to its circumference. Find the diameter of the circle.
(1) 2 unit
(2) 4 unit
(3) 1 unit
(4) 5 unit

## Answer (2)

Sol. Area of circle $=$ Circumference of circle $\pi r^{2}=2 \pi r$

$$
\begin{aligned}
& r^{2}=2 r \\
& r=2
\end{aligned}
$$

Then $d=2 r=4$ units.
27. Find the angle traced by hour hand of a correct clock 7 pm O' clock and 2 am O' clock.
(1) $200^{\circ}$
(2) $210^{\circ}$
(3) $310^{\circ}$
(4) $290^{\circ}$

## Answer (2)

Sol. Angle made by hour hand in 1 hour $=30^{\circ}$
7 pm to $2 \mathrm{am}=7$ hours.
Angle traced $=30^{\circ} \times 7=210^{\circ}$
28. From the figure, what is the value of $x$ ?

(1) $50^{\circ}$
(2) $120^{\circ}$
(3) $60^{\circ}$
(4) $70^{\circ}$

Answer (4)

Sol.

$\angle y+120^{\circ}=180^{\circ}$ (angle on straight line)
$\angle y=60^{\circ}$
$\angle A+\angle y+\angle x=180^{\circ}$ (sum of internal angle of triangle)
$50^{\circ}+60^{\circ}+\angle x=180^{\circ}$
$110^{\circ}+\angle x=180^{\circ}$
$\angle x=70^{\circ}$
29. When seen through a mirror, a clock shows $3: 30$. What is the correct time?
(1) $2: 30$
(2) $8: 30$
(3) $5: 30$
(4) $4: 30$

## Answer (2)

Sol. 11:60-3:30 $=8: 30$
So correct time is $8: 30$.
30. Which of the following players didn't receive Medal in Tokyo Olympics 2020?
(1) PV Sindhu
(2) Neeraj Chopra
(3) Abhinav Bindra
(4) Ravi Kumar Dahiya

Answer (3)
Sol. (1) P.V. Sindhu received Bronze medal in Badminton
(2) Neeraj Chopra received Gold medal in men's Javelin throw
(3) Abhinav Bindra did not receive any medal in Tokyo Olympic 2020 games.
(4) Ravi Kumar Dahiya received silver medal in wrestling.
31. The minimum number of colours to required paint all sides of a cube that no two adjacent faces may have the same colour is
(1) 5
(2) 4
(3) 3
(4) 6

## Answer (3)

Sol. Opposite sides have same colours. So we need three different colours.
32. $X$ got 98 marks in his exam which is $56 \%$ of the total marks. What is the maximum marks of the exam?
(1) 150
(2) 175
(3) 200
(4) 225

Answer (2)
Sol. 56\% $\rightarrow 98$
$1 \% \rightarrow \frac{98}{56}$
$100 \% \rightarrow \frac{98}{56} \times 100=175$
33. Which of the following is a metal?
(1) Carbon
(2) Mercury
(3) Sulphur
(4) lodine

## Answer (2)

Sol. Except mercury, all options belong to non-metal. Thus, mercury is metal.
34. Major Constituent of natural gas is
(1) Propane
(2) Butane
(3) Methane
(4) Carbon

Answer (3)
Sol. Natural gas consists of methane (85\%), ethane ( $10 \%$ ) and little amount of propane and butane. Thus, the major constituent of natural gas would be methane.
35. Match List I with List II

| List I <br> Books |  | List II <br> Authors |  |
| :--- | :--- | :--- | :--- |
| A. | India wins <br> freedom | I. | R K Narayan |
| B. | The guide | II. | Mahatma Gandhi |
| C. | India from <br> midnight to <br> Millenium | III. | Abdul Kalam Azad |
| D. | Conquest of self | IV. | Shashi Tharoor |

Choose the most appropriate answer from the options given below:
(1) A-I, B-III, C-IV, D-II
(2) A-III, B-I, C-IV, D-II
(3) A-III, B-I, C-II, D-IV
(4) A-I, B-IV, C-II, D-III

Answer (2)
Sol.

| List-I <br> Books |  | List-II <br> Authors |  |
| :--- | :--- | :--- | :--- |
| A. | India wins <br> freedom | III. | Abdul Kalam Azad |
| B. | The guide | I. | R K Narayan |
| C. | India from <br> midnight to <br> Millenium | IV. | Shashi Tharoor |
| D. | Conquest of self | II. | Mahatma Gandhi |

36. Arrange the following in meaningful sequence:
A. Key
B. Door
C. Lock
D. Room

Choose the most appropriate answer from the options given below:
(1) A, C, B, D
(2) D, C, A, B
(3) B, A, D, C
(4) C, B, D, A

Answer (1)
Sol. At first, we have to key, then we unlock the lock, then open the door and enter into room.

So, sequence is $\rightarrow A, C, B, D$
37. Match List I with List II

| List I <br> Physical Quantity  <br> List II <br> Units  <br> A.  <br> Electric charge  <br> B.  <br> Force  Newton |  |  |  |
| :--- | :--- | :--- | :--- |
| C. | Power | II. | Coulamb |
| D. | Energy | III. | Joule |

Choose the most appropriate answer from the options given below:
(1) A-I, B-II, C-IV, D-III
(2) A-II, B-I, C-IV, D-III
(3) A-II, B-IV, C-I, D-III
(4) A-III, B-II, C-IV, D-I

Answer (2)
Sol.

| List I <br> Physical Quantity |  | List II <br> Units |  |
| :--- | :--- | :--- | :--- |
| A. | Electric charge | II. | Coulamb |
| B. | Force | I. | Newton |
| C. | Power | IV. | Watt |
| D. | Energy | III. | Joule |

38. In a row of 40 children, $A$ is $13^{\text {th }}$ from the left end and $B$ is ninth from the right end. How many children are there between $A$ and $C$ if $C$ is fourth to the left of $B$ ?
(1) 13
(2) 14
(3) 15
(4) 16

## Answer (2)

Sol. C's rank from left $=9+4=13^{\text {th }}$
So, C's rank from right $=(40-13)+1=28^{\text {th }}$
Number of students between A and C=(28-13)$1=14$
39. Bhoodan-Gram Dan Movement was initiated by
(1) Mahatma Gandhi
(2) Vinoba Bhave
(3) Shri Ram Chandra Reddy
(4) Sardar Patel

Answer (2)
Sol. Bhoodan-Gram Dan movement was initiated by Vinoba Bhave in 1951 aimed to persuade wealthy landowners to denote a portion of their land to landless peasants.
40. Match List I with List II

| List I <br> River |  | List II <br> City |  |
| :--- | :--- | :--- | :--- |
| A. | Mahanadi | I. | Ludhiana |
| B. | Godavari | II. | Cuttack |
| C. | Sutlej | III. | Lucknow |
| D. | Gomti | IV. | Nasik |

Choose the most appropriate answer from the options given below:
(1) A-II, B-IV, C-III, D-I
(2) A-II, B-IV, C-I, D-III
(3) A-IV, B-II, C-I, D-III
(4) A-III, B-I, C-II, D-IV

Answer (2)
Sol.

| List I <br> River |  | List II <br> City |  |
| :--- | :--- | :--- | :--- |
| A. | Mahanadi | II. | Cuttack |
| B. | Godavari | IV. | Nasik |
| C. | Sutlej | I. | Ludhiana |
| D. | Gomti | III. | Lucknow |

41. Choose the one which is different from the rest three
(1) 431
(2) 162
(3) 831
(4) 232

Answer (4)
Sol. Sum of digits of 232 is prime, while all other's sum is not prime.
42. Find the angle of elevation of the Sun, when the length of the shadow of a tree is $\frac{1}{\sqrt{3}}$ times the height of the tree.
(1) $30^{\circ}$
(2) $45^{\circ}$
(3) $60^{\circ}$
(4) $90^{\circ}$

Answer (3)
Sol.

$\tan \theta=\frac{\mathrm{h}}{\mathrm{h} / \sqrt{3}}$
$\tan \theta=\sqrt{3}$
$\theta=60^{\circ}$
43. If the word 'LEADER' is coded as 20-13-9-12-1326. How would you write "LIGHT"?
(1) 20-16-15-17-22
(2) 20-17-15-16-28
(3) 20-15-16-18-23
(4) 20-16-17-15-27

## Answer (2)

## Sol.


44. The ratio of ages of 2 boys is $3: 7$. After 2 years, the ratio of their ages will become $5: 9$. The ratio of their ages after 10 years will be
(1) $15: 16$
(2) $5: 17$
(3) $17: 18$
(4) $13: 17$

Answer (4)
Sol. Let their present age be $3 x$ and 7 x .
After two years, $\frac{3 x+2}{7 x+2}=\frac{5}{9}$
$\mathrm{x}=1$
Present age $=3$ years and 7 years.
After 10 years $=3+10=13$ and $7+10=17$

$$
=13: 17
$$

45. If today is Saturday then what will be the day on $363^{\text {rd }}$ day?
(1) Sunday
(2) Monday
(3) Thursday
(4) Friday

Answer (4)
Sol. $\frac{363}{7}=6$ remainder
Saturday $+6=$ Friday
46. Major is related to Lieutenant in the same way as
"Squadron Leader is Related to $\qquad$ ?
(1) Pilot officer
(2) Flying attendant
(3) Group captain
(4) Flying officer

Answer (4)
Sol. Major and Squadron Leader are equivalent ranks in Army and Air Force respectively. In the same way Lieutenant and Flying officer are equivalent ranks in Army and Air Force respectively.
47. Here are some words translated from an artificial language

Holo polo means base ball
Moto prot means my India
Prot shot means India won
Which world could be mean "All India Radio"
(1) Holo polo prot
(2) Kud prot nid
(3) Prot polo nid
(4) Polo nid prot

Answer (2)
Sol. (1) Holo polo $\rightarrow$ Base ball
(2) Moto prot $\rightarrow$ My India
(3) Prot shot $\rightarrow$ India won

India $\rightarrow$ Prot from (2) and (3)
So in $2^{\text {nd }}$ option prot is in middle. So, this answer because other two words unidentified.
48. Find the angle of elevation of the Sun, when the length of the shadow of a tree is $\frac{1}{\sqrt{3}}$ times the height of the tree.
(1) $30^{\circ}$
(2) $45^{\circ}$
(3) $60^{\circ}$
(4) $90^{\circ}$

## Answer (3)

Sol.

$\tan \theta=\frac{\mathrm{h}}{\mathrm{h} / \sqrt{3}}$
$\tan \theta=\sqrt{3}$
$\theta=60^{\circ}$
49. Who won the 'Noble Prize' for in the field of "physiology or medicine"?
(1) C.V. Raman
(2) Jagdish Chandra Bose
(3) Homi Jehangir Bhabha
(4) Har Gobind Khorana

## Answer (4)

Sol. 1968 Nobel Prize in the field of physiology or medicine was received by Har Gobind Khorana along with Marshall W. Nirenberg and Robert W. Holley for research that helped to show how the genetic components of the cell nucleus control the synthesis of proteins.
50. A railway half-ticket costs half the full ticket. However, the reservation charge for all the tickets is constant. One full reserved ticket for a journey is ₹525. If the cost of one full and one half reserved ticket for the same journey is ₹850, then what is the reservation charge per ticket?
(1) ₹120
(2) ₹ 150
(3) ₹ 125
(4) ₹115

## Answer (3)

Sol. Let x be the fare and y be reservation charge.
$x+y=525$
One full and one-half ticket $=1+\frac{1}{2}=\frac{3}{2}$
Cost of half ticket $=\frac{x}{2}$
$\because x+y+\frac{x}{2}+y=850$
$\frac{3}{2} x+2 y=850$
$3 x+4 y=1700$
Solving (i) \& (ii), $x=400 \ldots$ (iii)
Using (iii) in (i), $\mathrm{y}=125$
So, reservation charge is ₹125
51. The relationship between the values of a country's imports and its exports is called.
(1) Balance of Trade
(2) Balance of Payment
(3) Balance of currency
(4) Bill of exchange

## Answer (1)

Sol. Balance of Trade is the relationship between values of a country's imports and its exports. This balance of trade is constituent of balance of payment. Thus, correct answer is balance of trade.
52. Which of the following is not the satellite launched by India?
(1) Explorer
(2) APPLE
(3) Bhaskar
(4) INSAT

Answer (1)
Sol. Satellite, APPLE, Bhaskar and INSAT were launched by India or are associated with Indian Space Research Organisation (ISRO) while explorer was the first satellite launched by United States in 1958.
53. Which book is written by Dr. S. Radha Krishnan?
(1) The world's largest democracy
(2) India divided
(3) Indian Philosophy
(4) India Priceless heritage

## Answer (3)

Sol.

|  | Books | Writers |
| :--- | :--- | :--- |
| $(1)$ | The world's largest <br> democracy | Ramachandra Guha |
| $(2)$ | India divided | Dr Rajendra Prasad |
| $(3)$ | Indian Philosophy | Dr Sarvepalli <br> Radhakrishnan |
| $(4)$ | India Priceless <br> heritage | N.A. Palkhivala |

Thus, correct answer is (3)
54. Match List I with List II

| List I <br> Diet Deficiency |  | List II <br> Disease |  |
| :--- | :--- | :--- | :--- |
| A. | Deficiency of Vitamin B | I. | Anaemia |
| B. | Deficiency of Vitamin A | II. | Beri-Beri |
| C. | Deficiency of Iron | III. | Goitre |
| D. | Deficiency of Iodine | IV. | Night <br> blindness |

Choose the most appropriate answer from the options given below:
(1) A-IV, B-II, C-III, D-I
(2) A-II, B-IV, C-I, D-III
(3) A-I, B-III, C-IV, D-II
(4) A-III, B-I, C-II, D-IV

## Answer (2)

## Sol.

| List I <br> Diet Deficiency |  | List II <br> Disease |  |
| :--- | :--- | :--- | :--- |
| A. | Deficiency of Vitamin B | II. | Beri-Beri |
| B. | Deficiency of Vitamin A | IV. | Night <br> blindness |
| C. | Deficiency of Iron | I. | Anaemia |
| D. | Deficiency of Iodine | III. | Goitre |

55. If the $2^{\text {nd }}$ half of the letters of the word INTERMEDIATE are reversed and placed before $1^{\text {st }}$ half of the letters, which letter will be $2^{\text {nd }}$ to the right of $10^{\text {th }}$ letter from the right?
(1) A
(2) $D$
(3) E
(4) I

Answer (2)
Sol. Word: INTERMEDIATE
Reverse $2^{\text {nd }}$ half and placed before $1^{\text {st }}$ half

## ETAIDEINTERM

$10-2=8^{\text {th }}$ from right which is $D$.
56. Find the perimeter of a rhombus whose one diagonal is 16 cm long and area is $240 \mathrm{~cm}^{2}$.
(1) 68 cm
(2) 30 cm
(3) 24 cm
(4) 36 cm

Answer (1)
Sol. Area $=240 \mathrm{~cm}^{2}$
One diagonal $=16 \mathrm{~cm}$
Second diagonal $=\frac{\text { Area } \times 2}{d_{1}}=\frac{240 \times 2}{16}=30 \mathrm{~cm}$
Perimeter $=2 \sqrt{\left(d_{1}\right)^{2}+\left(d_{2}\right)^{2}}$

$$
\begin{aligned}
& =2 \sqrt{(16)^{2}+(30)^{2}} \\
& =68 \mathrm{~cm}
\end{aligned}
$$

57. A is 3 years younger than $C$ but one year older than D. $D$ is one year older than $B$ but 4 years younger than C. C is 15 years old. What is the age of $B$ in years?
(1) 13
(2) 12
(3) 11
(4) 10

Answer (4)
Sol. $A=C-3$
$A=D+1$
$D=B+1$
$D=C-4$
$C=15$
So, $D=11, A=12, B=10$
So, B's age is 10 years old.
58. The average of 12 numbers is 15 and the average of the first two numbers is 14 . What is the average of the remaining numbers?
(1) 15
(2) 15.2
(3) 14
(4) 14.2

Answer (2)
Sol. Sum of 12 numbers $=12 \times 15=180$
Sum of first 2 numbers $=2 \times 14=28$
Sum of first two + Sum of remaining $=180$
Sum of remaining $=180-28=152$
Average $=\frac{152}{10}=15.2$
59. Match List I with List II

| LIST I <br> Movement |  | LIST II <br> Purpose |  |
| :--- | :--- | :--- | :--- |
| A. | Quit India <br> Movement | I. | To achiever self <br> Government in India of <br> demand for Iarge <br> political representation |
| B. | Civil <br> Disobedience <br> Movement | II. | Compelled British's to <br> leave India |
| C. | Non <br> Cooperation <br> Movement | III. | Refusal to obey certain <br> laws orders or <br> Commands of the <br> Government |
| D. | Home rule <br> league <br> Movement | IV. | Indians resigning their <br> title boycotting foreign <br> goods <br> Government and <br> institutions refused to <br> pay taxes |

Choose the most appropriate answer from the options given below:
(1) A-I, B-III, C-II, D-IV
(2) A-II, B-III, C-I, D-IV
(3) A-III, B-II, C-IV D-I
(4) A-II, B-III, C-IV, D-I

Answer (4)

Sol.

| LIST I <br> Movement |  | LIST II <br> Purpose |  |
| :--- | :--- | :--- | :--- |
| A. | Quit India <br> Movement | II. | Compelled British's to <br> leave India |
| B. | Civil <br> Disobedience <br> Movement | III. | Refusal to obey certain <br> laws orders or <br> Commands of the <br> Government |
| C. | Non <br> Cooperation <br> Movement | IV. | Indians resigning their <br> title boycotting foreign <br> goods and <br> Government and <br> institutions refused to <br> pay taxes |
| D. | Home rule <br> league <br> Movement | I. | To achieve self <br> Government in India of <br> demand for large <br> political representation |

60. The only Indian who received noble prize in literature is
(1) Bankim Chandra Chatterjee
(2) Toradutt
(3) R. K. Narayan
(4) Rabindra Nath Tagore

## Answer (4)

Sol. Rabindra Nath Tagore won Nobel Prize for Literature in 1913 for his collection Gitanjali Published in London in 1912.

