RRB NTPC Exam 27 Jan, 2021 Solution

Que. 1
In Computers, what does ALU stand for?
1) Advanced Logic Unit
2) Accelerated Logic Unit
3) Arithmetic Logic Unit
4) Asymmetric Logic Unit

Ans. In Computers, ALU Stands for Arithmetic Logic Unit.

Que. 2
The ratio of ages of Suraj and Mohan 4 years ago was 7 : 8 and after 5 years from now, their ratio will become 10 : 11. Find the present age of Suraj.
1) 24 years
2) 25 years
3) 28 years
4) 21 years

Ans. Previously age ratio 7:8
Present age ratio 10:11
Difference in both age ratio (10-7) = 3 units and (11-8) 3 units, both are same.
The total year difference between previous and present age is (4 years + 5 years) = 9 years
Accordingly.
3 unit -> 9 years
so,1 unit -> 3 years
4 years age Suraj's age was (7 x 3) = 21 years
Suraj's present age (21+4) 25 years
The present age of Suraj is 25 years.

Que. 3
Select the related word from the given alternative.
ROAD : URDG :: LANE : ?
1) ODQH
2) MDQH
3) QHDN
4) QNDH

Ans. Here the logic used is each letter increasing by 3. R(18)->U(21), O(15)->R(18), A(1)->D(4), D(4)->G(7) Similarly, L(12)->O(15), A(1)->D(4), N(14)->Q(17), E(5)->H(8). The correct answer is ODQH.

Que. 4
The book titled 'Social Harmony' is written by:
1) Atal Bihari Vajpayee
2) Shyama Prasad Mukherjee
3) Narendra Modi
4) Lal Krishna Advani

Ans. The book titled 'Social Harmony' is written by Shri Narendra Modi.

Que. 5
BJP had won how many seats in the Lok Sabha election 2019?
1) 320
2) 350
3) 303
4) 280
Ans. BJP had won 303 seats in the Lok Sabha election 2019.

Que. 6
A can complete a task in 16 days and B is 4 times faster than A. Find the part of work done by both A and B together in 1 day.
1) 5/18
2) 3/16
3) 5/16
4) 3/20

Ans. Formula : Efficiency = Total work/Time
LCM of 16 and 4 = 16 Total work
Efficiency of A = 16/16 = 1 unit/day
Efficiency of B = 16/4 = 4 units/day
Total efficiency of A and B = (1 + 4) units/day = 5 units/day
Part of work done in 1 day = Work done in 1 day/Total work
= 5/16
Part of work done in 1 day is 5/16

Que. 7

If in a certain language M = 13 and MAT = 34 then how WAX is coded in that language?

1) 45

2) 48

3) 50

4) 44

Ans. M13 and MAT = 34

The value of M is 13 as it comes to the 13th number in the Alphabet. Thus, the value of A will be 1 and T will be 20 according to the above table, Now add the values of each number,

MAT=13+1+20=34 Now, in the same way,

WAX=23+1+24=48

So, the value of WAX is 48.

Que. 8

All India Muslim League was founded in which year?

1) 1905

2) 1906

3) 1907

4) 1908

Ans. All India Muslim League was founded in 1906.

Que. 9

When has the khilafat movement started?

1) 1919

2) 1908

3) 1929

4) 1909

Ans. The Khilafat Movement started in 1919.

Que. 10

A can complete a work in 12 days and B can complete the same work in 24 days. Find the time taken by both A and B together to complete the work.

1) 8 days

2) 10 days

3) 6 days

4) 9 days

Ans. Efficiency = Total work/Time taken

LCM of 12 and 24 = 24 Total work

Efficiency of A = 24/12 units/day

= 2 units/day

Efficiency of B = 24/24 unit/day

= 1 unit/day

Total efficiency of A and B = (2+1) units/day

= 3 units/day

Required time = 24/3 days

= 8 days.

The time taken by both A and B together to complete the work is 8 days.

Que. 11

If Meera's mother's age is four times Meera. After 5 years Meera's mother's age will be three times greater than Meera's. Then what will be the age of Meera?

1) 10 years

2) 15 years

3) 20 years

4) 23 years

Ans. Let present age of Meera =x years

Let present age of Meera's mother = y years

After five years age of Meera =(x+5) years

After five years age of Meera's mother =(y+5) years

According to problem,

y=4x …………..(1)

y+5 = 3(x+5) ………(2)

Put (1) in (2), we get

4x+5 = 3x+15

4x−3x = 15−5

x=10

y=40

∴ Meera's present age =10 years

Que. 12

Tomb of Akbar is located at which of the following place?

1) Delhi.

2) Agra.

3) Amarkot.

4) Lahore.

Ans. Tomb of Akbar is located at Agra.

Que. 13

Who wrote his own autobiography "Tuzuk-i-Baburi"?

1) Babur

2) Shah Jahan

3) Aurangzeb

4) Akbar

Ans. The autobiography "Tuzuk-i-Baburi" (also known as "Baburnama") was written by Babur.

Que. 14

Find the amount after 3 years if the rate of interest is 15% per annum and principal is Rs. 24,000.

1) Rs. 30,900

2) Rs. 32,700

3) Rs. 36,500

4) Rs. 34,800

Ans. S.I = PRT/100

Where, P=Principal , R= Rate of interest , T= Time period

= Rs. (24000 x 15 x 3)/100

= Rs. 240 x 45

= Rs. 10,800

Amount = Rs. (24,000 + 10,800)= Rs. 34,800

The amount after 3 years is Rs. 34.800.

Que. 15

Select the related numbers from the given alternative.

80 : 730 :: ? : 344

1) 45

2) 49

3) 50

4) 48

Ans. Here the logic used is 9×9-1=80 and 9×9, ×9+1=730. Similarly, 7×7-1 = 48 and 7×7×7+1= 344. So the correct answer is 48.

Que. 16

Which of the following is a volatile memory?

1) EPROM

2) EEPROM

3) DVD

4) SRAM

Ans. SRAM (Static Random-Access Memory) is a type of volatile memory that stores data as long as power is supplied.

Que. 17

Which session of INC passed the famous 4 resolutions, namely - swaraj, swadeshi, Boycott and National Educations?

1) 1906 Calcutta session

2) 1920 Calcutta session

3) 1929 Lahore session

4) 1919 Amritsar session

Ans. The famous four resolutions of Swaraj, Swadeshi, Boycott, and National Education were passed during the Calcutta session of the Indian National Congress (INC) in 1906.

Que. 18

A boat covered 20 km downstream and 28 km upstream. The speed of the boat in still water is 7 km/hr and the speed of the stream is 3 km/hr. Find the time taken to complete the whole journey.

1) 9 hours

2) 8 hours

3) 6 hours

4) 10 hours

Ans. Downstream speed = (7 + 3) km/hr

= 10 km/hr

Upstream speed = (7-3) km/hr

= 4 km/hr

Time taken to cover 20 km downstream = 20/10 hours

2 hours

Time taken to cover 28 km upstream = 28/4 hours

= 7 hours

Total time taken to complete the whole journey = (2 + 7) hours

= 9 hours

The time taken to complete the whole journey is 9 hours.

Que. 19

Select the missing number in the given series?

 18, 22, 21, 20, 24, 18, ?

1) 25

2) 30

3) 27

4) 26

Ans. The series can be divided into two small series:

1) 18,21,24,?

2) 22, 20, 18

Here in the series (1) the number is increasing by 3.

As we can see from the pattern,

18+3=21

21+3=24

so, 24+3=27

Here in the series (2) the number is decreasing by 2

as we can see from the pattern,

22-2=20

20-2=18.

Now, combining the two series we saw,

18,22,21,20,24,18,27 is the complete series.

The missing number is 27.

Que. 20

In which of the following states of India is the Moatsu festival celebrated?

1) Nagaland

2) Tripura

3) Assam

4) West Bengal

Ans. The Moatsu festival is celebrated in the state of Nagaland in India.

Que. 21

During which of the following Viceroy Widow Remarriage Act was introduced?
1) Lord Amherst
2) Lord Dalhousie
3) Lord Hardinge-I
4) William Bentinck

Ans. The Widow Remarriage Act was introduced during the viceroyalty of Lord Dalhousie. The act, officially known as the "Widow Remarriage Act of 1856.

Que. 22

The ratio of water and milk in a mixture of 65 liters is 5 : 8. What quantity of water(in liter) must be added so that the ratio of water and milk becomes 3 : 4?
1) 3 liters
2) 4 liters
3) 5 liters
4) 6 liters

Ans. Amount of water in mixture = (5/13) * 65 litre
= 25 litres
Amount of milk in mixture = (8/13) * 65
= 40 litres
Let the amount of water added be x litre
According to the question, (25 + x) / 40 = 3/4
100 + 4x = 120
4x = 20
x = 5
The amount of water to be added is 5 litres.

Que. 23

Select the related word from the given alternative.
RIGT : WDBY :: FUSY : ?
1) KPND
2) LPND
3) KPNE
4) LMPB

Ans. In RIGT: WDBY
R + 5 = W
I - 5 = D
G - 5 = B
T + 5 = Y

Similarly,

F + 5 = K
U - 5 = P
S - 5 = N
Y + 5 = D
Therefore "KPND" is the correct option.

Que. 24
Kamet peak is the highest point in which of the following ranges?
1) Karakoram
2) Ladakh
3) Zanskar
4) Pir Panjal

Ans. Kamet Peak is the highest point in the Zanskar Range.

Que. 25
When was the Goods and Services Tax (GST) introduced in India?
1) February, 2017
2) April, 2017
3) July, 2017
4) January, 2017

Ans. The Goods and Services Tax (GST) was introduced in India on July 1, 2017.

Que. 26
Find the value of
11√+2√+12√+3√+13√+4√+...+19√9+1√0011+2+12+3+13+4+...+199+100
1) 11
2) 9
3) – 9
4) – 11

Ans. 9

Que. 27
A series is given and one term is missing. Select the correct alternative from the given ones that will complete the given series.
AJKTU, BILSV, CHMRW, DGNQX, ?
1) FEOPY
2) EFOPY
3) GHOPY
4) PYEFO

Ans. The first letters of each term follow a pattern: A (1), B (2), C (3), D (4). The next letter should be E (5th letter).

The second letters follow a pattern: J (10), I (9), H (8), G (7). The next letter should be F (6).

The third letters follow a pattern: K (11), L (12), M (13), N (14). The next letter should be O (15).

The fourth letters follow a pattern: T (20), S (19), R (18), Q (17). The next letter should be P (16).

The fifth letters follow a pattern: U (21), V (22), W (23), X (24). The next letter should be Y (25).

So, the correct term to complete the series is EFOPY.

Que. 28

According to which Article of the Indian Constitution, the President can be impeached?
 1) Article 62
2) Article 60
3) Article 57
4) Article 61

Ans. The President of India can be impeached under Article 61 of the Indian Constitution.

Que. 29

Name the state that has been ranked first in terms of Wind energy production?
1) Gujarat
2) Tamil Nadu
3) Andhra Pradesh
4) Rajasthan

Ans. Tamil Nadu has been ranked first in terms of Wind energy production.

Que. 30

What will come in the place of the question mark '?' in the following question?
30% of 300 ÷ 25 + 5 × 2% of 200 = ?
1) 12
2) 15
3) 23.6
4) 21.6

 Ans. 30% of 300+ 25 + 5 x 2% of 200 = ?
=(3/10) of 300+ 25 + 5 x (2/100) of 200 = ?

= 90+25+5x4 = ?

= 3.6 + 20 = ?

= 23.6

The value of ? is 23.6.

Que. 31

Select the number that can be placed at the sign of question mark(?) from the given alternative.

3	4	5
2	3	4
1	2	3
14	29	?

1) 50

2) 51

3) 60

4) 70

Que. 32

The "National Human Right Commission" (NHRC) consists of how many members?

1) 4 members

2) 5 members

3) 6 members

4) 7 members

Ans. The "National Human Right Commission" (NHRC) consists of 5 members.

Que. 33

A sum of Rs. 15000 is invested at 10% compound interest for 2 years. Find the amount after 2 years.

1) Rs. 15510

2) Rs. 18150

3) Rs. 19820

4) Rs. 18754

Ans. Sum invested = Rs. 15000

Time = 2 years

Rate of interest = 10% p.a.

Amount = P x $(1 + r/100)^t$

Amount = 15000 × (1 + 10/100)^2
Amount = Rs. 18150
The amount received after 2 years is Rs. 18150.

Que. 34

In the following question four pairs of numbers are given. The number on the left side is related to the number on the right side. Three of them are similar on the basis of the same logic. Find the odd one from the given alternative?
1) 27 - 118
2) 33 - 132
3) 41 - 164
4) 73 - 292

Ans. Here the logic used is 132-33 = 99 if we divide 99 by 33 we get 3, similarly
164-41=123 and 123/41= 3. 292-73 =219 and 219/73= 3
but in 118-27 = 91 and 91/27 = 3.3 , so the correct answer is 27-118

Que. 35

The Alps mountain range is located on which continent?
1) Europe
2) North America
3) South America
4) Africa

Ans. The Alps mountain range is located on the continent of Europe.

Que. 36

What is the new name of Jog or Gerosoppa waterfall?
1) Mahatma Gandhi Waterfall
2) Jawaharlal Nehru Waterfall
3) Sardar Patel Waterfall
4) Rajiv Gandhi Waterfall

Ans. The new name of Jog or Gerosoppa Waterfall is "Rajiv Gandhi Waterfall".

Que. 37

A trader sells an article at Rs. 3200 with 20% loss. What will be the selling price of the article if the trader gains 25%?

1) Rs. 5000

2) Rs. 3500

3) Rs. 4000

4) Rs. 4700

Ans. Selling price at 20% loss = Rs. 3200

At (100-20)% = 80%, selling price = Rs. 3200

At (100 + 25)% = 125%, selling price = Rs. 3200 x (125/80)

At (100+25)% = 125%, selling price = Rs. 5000

The selling price of an article when sold at 25% gain is Rs. 5000.

Que. 38

In a certain code language, "you are good" is written as "256", "we are bad" is written as "637" and "good and bad" is written as "358". How is "and" written in that code language?

1) 2

2) 5

3) 8

4) 3

Ans. In the first and third statements, the common code digit is '5' and the common word is 'good'. So, '5' means 'good'.

In the second and third statements, the common code digit is '3' and the common word is 'bad'. So, '3' means 'bad'.

Thus, in the third statement '8' means 'and'.

Que. 39

Who among the following persons has won the Bharat Ratna Award in 2019?

1) Bhupen Hazarika

2) Atal Bihari Vajpayee

3) Pandit Madam Mohan Malviya

4) None of the above

Ans. Atal Bihari Vajpayee has won the Bharat Ratna Award in 2019.

Que. 40

Pulitzer prize is given in the field of _____.

1) Journalism

2) Sports

3) Medicine

4) None of these

Ans. The Pulitzer Prize is awarded in the field of journalism.

Que. 41

A mixer is sold at a 25% discount and the profit given is 20%. Find the ratio of CP to MRP.

1) 5 : 8

2) 8 : 5

3) 4 : 5

4) 5 : 4

Ans. Discount on mixer = 25%

Profit on mixer = 20%

CP/MRP = (100 - D%)/(100 + P%)

= CP/MRP = (100 - 25%)/(100 + 20%)

= CP/MRP = 75/120 = 5/8

= CP : MRP = 5 : 8

∴ The ratio of CP to MRP is 5 : 8.

Que. 42

A series is given with one missing term. Select the correct alternative from the given ones that will complete the series.

PON, RQP, TSR, VUT, ?

1) XWY

2) XWV

3) YUW

4) XXV

Ans. One letter is left between the first letters of each group.

The same is with the second and third letters of each group.

Hence,Option XWV is the correct answer.

Que. 43

When was the Swachh Bharat Mission launched in India?

1) 2014

2) 2015

3) 2016

4) 2013

Ans. The Swachh Bharat Mission (SBM) was launched in India on October 2, 2014.

Que. 44

The famous Komagata Maru incident took place in which of the following years?

1) 1904

2) 1909

3) 1914

4) 1919

Ans. The famous Komagata Maru incident took place in 1914.

Que. 45

The ratio of length of 2 trains is 5 : 6 and the ratio of their speeds is 2 : 3. Find the ratio of time taken by them to cross a pole.

1) 5 : 4

2) 7 : 4

3) 2 : 7

4) 5 : 7

Ans. Let the time taken by 2 trains be T and t respectively.
Speed Distance/Time
(2/3)=(5/1)/(6/1)
(2/3) = (5/6) x (t/T)
t/T (5/6) x (3/2) = 4/5
t:T=4:5
T:t-5:4
The ratio of time taken by them to cross a pole is 5: 4.

Que. 46

Identify the diagram that best represents the relationship among classes given below: UP, India and Banaras

1)
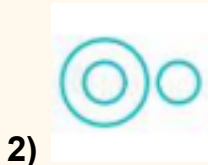
2)

3)

4)

Ans.

A)

India- country,UP- State, Banaras- City

Que. 47
What is the pH value of acid rain?
1) Less than 5.6
2) More than 5.6
3) Equal to 7.0
4) More than 7.0

Ans. The pH value of acid rain is less than 5.6.

Que. 48
What is the cause of the formation of 'Aurora Borealis'?
1) It occurs when sunlight hits ice crystals in cirrus clouds that are very high in the sky
2) It is formed when there's a reflection of light from the sun and the moon form various small ice crystals suspended in the air
3) the collisions between gaseous particles in the Earth's atmosphere with charged particles released from the sun's atmosphere
4) It is formed when a concentrated bright spot is seen on one or both sides of the sun

Ans. The collisions between gaseous particles in the Earth's atmosphere with charged particles released from the sun's atmosphere is the cause of the formation of 'Aurora Borealis'.

Que. 49
Two trains of length 125 m each are coming from opposite directions. If the speeds of 2 trains are 18 m/s and 22 m/s, then find the time in which 2 trains will cross each other.
1) 25/4 secs
2) 5 secs
3) 48 secs
4) 7 secs

Ans. Speed Distance/Time
Let the time after which 2 trains will cross each other be t secs.
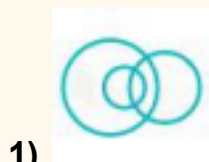(18 + 22) = (125 +125)/t
t = 250/40
t = 25/4 secs
The time in which 2 trains will cross each other is 25/4 secs.

Que. 50
Identify the diagram that best represents the relationship among classes given below
Fruit, Apple and Potato

1)

2)

3)

4)
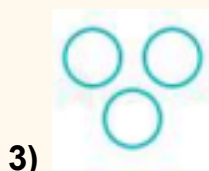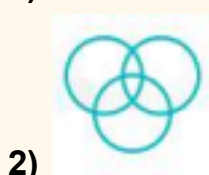
Ans.

Apples are fruits and potatoes are vegetables.

Que. 51

Who among the following was the first cricket player to win Arjuna Award?

1) C.K. Nayudu

2) Salim Durani

3) Ajit Wadekar

4) Ramakant Achrekar

Ans. The first cricket player to win the Arjuna Award was Salim Durani.

Que. 52

What will come in the place of the question mark '?' in the following question?

25% of 400 ÷ 8 × 4 + 25 − 17 = ?

1) 11.125

2) 50

3) 55

4) 58

Ans. 25% of 400+ 8x4+25-17

=(25/100) x 400 8x4+25-17

= 100 ÷ 8 x 4 + 25 - 17

= 12.5 x 4 + 25 - 17

= 50 + 25 -17

= 75 -17

= 58

The value of ? is 58.

Que. 53

Select the related number from the given alternatives.

20 : 30 :: ? : 72

1) 48

2) 19

3) 20

4) 31

Ans. $20 \times \frac{3}{2} = 30$

$? \times \frac{3}{2} = 72$

$? = \frac{72}{\frac{3}{2}}$

$? = 72 \times \frac{2}{3}$

= 48, the correct option is 48.

Que. 54

Find the median of the given set value.

Set = {37, 17, 53, 7, 13, 57, 23, 19}

1) 10

2) 18

3) 21

4) 25

Ans. Arranging the numbers in ascending order, 7, 13, 17, 19, 23, 37, 53, 57

Number of terms = 8 i.e. even.

So, Median = [(n/2)th term + ((n/2) + 1th term]/2

(n/2)th term = 8/2

= 4th term

=19

((n/2) + 1)th term = ((8/2) + 1)th term

= 5th term

=23

Median (19+23/2)

= 42/2

=21

 The median of the given data is 21.

Que. 55

In the following question, which mathematical operators can be used so that the expression will become correct? 8 * 5 * 27 * 3 * 16

1) ×, =, -, ÷

2) +, ÷, =, -

3) ×, =, -, +

4) +, ×, -, =

Ans. 8 × 5 = 27 - 3 +16 = 40 = 24+16 -> 40=40

Therefore option 3 is the correct option.

Que. 56

Shalimar Garden located in Lahore, Pakistan, was built by which Mughal Emperor?

1) Jahangir

2) Shah Jahan

3) Akbar

4) Aurangzeb

Ans. Shalimar Garden, located in Lahore, Pakistan, was built by the Mughal Emperor Shah Jahan.

Que. 57

The area of base of a cylinder is 25π cm². If the height of the cylinder is 9 cm, then find the total surface area of the cylinder.

1) 440 cm2

2) 240 cm2

3) 420 cm2

4) 220 cm2

Ans. Let the radius of the cylinder be r cm.

Area of base of a cylinder = 25π cm2

⇒ πr2 = 25π cm2

⇒ r = 5 cm

Now, Total surface area of cylinder = 2πr(r + h)

⇒ Total surface area of cylinder = 2 × (22/7) × 5 × (5 + 9)

⇒ Total surface area of cylinder = 440 cm2

∴ The total surface area of cylinder is 440 cm2.

Que. 58

Three of the four numbers in the alternatives have numbers which hold the same relationship. Find the odd one out.

1) 28

2) 45

3) 72

4) 81

Ans. 28 is not multiple of 9 all other numbers are multiple of 9.

45= 9 × 5

72= 9 × 8

81= 9 × 9

28 is the correct option.

Que. 59

Which of the following alcohol is known as a wood spirit?

1) Methyl Alcohol

2) Ethyl Alcohol

3) Ethylene Glycol

4) Glycerol

Ans. The alcohol known as "wood spirit" is Methyl Alcohol.

Que. 60
The ratio of heights of 2 cones is 3 : 4 and the ratio of radius of 2 cones is 5 : 6.
Find the ratio of volumes of 2 cones.
1) 75/144
2) 75/72
3) 72/75
4) 144/75

Ans. Volume of cone = $(1/3)\pi r^2 h$
Calculations:
Let the volumes of 2 cones be v and V respectively.
$V/v = ((1/3)m(r_1)h_1)/((1/3)(2)^2 h_2)$
$V/v = (5/6)2 \times (3/4)$
V/v 75/144
Vv75: 144
The ratio of volumes of 2 cones is 75: 144.

Que. 61
Select the related word from the given alternatives.
Cells : Cytology :: Birds : ?
1) Paleontology
2) Ornithology
3) Entomology
4) Anthology

Ans. Study of cells is referred to as Cytology. Similarly, the study of birds is called Ornithology.
So, Ornithology is correct.

Que. 62
Which is the shortest part of the small intestine?
1) Duodenum
2) Jejunum
3) Ileum
4) None of the above

Ans. The shortest part of the small intestine is the Duodenum.

Que. 63

The ratio of length and breadth of a rectangle is 5 : 4. The perimeter of the rectangle is 54 cm. Find the area of the rectangle.

1) 180 cm2

2) 160 cm2

3) 210 cm2

4) 280 cm2

Ans. Let the length and breadth of the rectangle be 5x and 4x respectively.

The perimeter of the rectangle = 54 cm

Perimeter of the rectangle = 2 × (l + b)

⇒ 2 × (5x + 4x) = 54

⇒ 9x = 27

⇒ x = 3 cm

Now, Length of the rectangle = 5 × 3 = 15 cm

Breadth of the rectangle = 4 × 3 = 12 cm
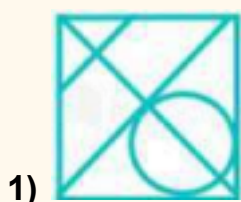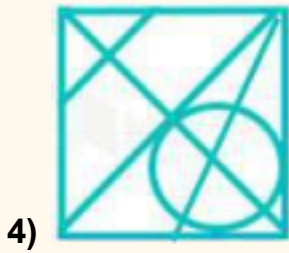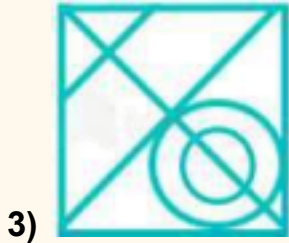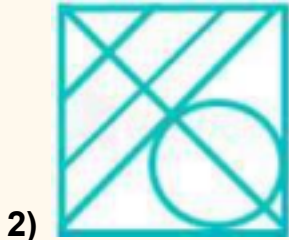
Area of the rectangle = 15 × 12

⇒ Area of the rectangle = 180 cm2

∴ The area of rectangle is 180 cm2.

Que. 64

Identify the figure that completes the pattern of the given figure.

1)

2)

3)

4)

Ans.

Que. 65
The function that is not influenced by estrogen is_____.
1) Release of eggs from the ovaries
2) Formation of sperms
3) Development of the breasts
4) Menstrual cycle

Ans. The function that is not influenced by estrogen is Formation of sperms.

Que. 66
Find the mean of the given set value.
Set = {27, 26, 17, 25, 43, 19, 37, 10}
1) 24
2) 25.5
3) 27.5
4) 29

Ans. Sum of observations = (27 + 26 + 17 + 25 + 43 + 19 + 37 + 10) ⇒ 25.5
∴ The mean of given set value is 25.5

Que. 67

In the question, two statements are given, followed by two conclusions, I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions, if any, follows from the given statements.

Statement: Ramesh's friend helped him to get a loan.

Conclusions:

I: Ramesh's friend was supportive.

II: Ramesh had many friends.

1) Only conclusion I follows

2) Only conclusion II follows

3) Neither I or II follows

4) Both I and II follow

Ans. Only conclusion I follows

From this statement we can not conclude that Ramesh had many friends.

Que. 68

Which among the following is an example of Diffraction?

1) The blue color of the sky

2) The twinkling of the stars

3) The Tyndall effect

4) Rainbow patterns found on a CD

Ans. Rainbow patterns found on a CD is an example of Diffraction.

Que. 69

If x + y = 25 and xy = 35, then 1/x + 1/y =?

1) $57 - \sqrt{57}$

2) 7/5

3) 5/7

4) $75 - \sqrt{75}$

Ans. 1/x + 1/y

= (y + x)/xy

= 25/35 ⇒ 5/7

∴ Required value of (1/x + 1/y) is (5/7).

Que. 70

Read the given statements and conclusions carefully and decide which of the conclusions logically follow(s) from the statements.

Statements:

1) All students in my class are active.

2) Rohini is not active.

Conclusions:

I. Rohini is not a student of my class.

II. Rohini must be active.

1) Both conclusions I and II follow.

2) Only conclusion I follows.

3) Only conclusion II follows.

4) Neither conclusion I nor II follows.

Ans. I. Rohini is not a student of my class → True (All students in my class are active and Rohini is not active)

II. Rohini must be active → False (Rohini is not active)

Only conclusion I follows.

Que. 71

Which disease is caused due to deficiency of Iodine?

1) Rickets

2) Scurvy

3) Goitre

4) Growth retardation

Ans. The disease caused due to deficiency of Iodine is Goitre.

Que. 72

SinA = 1/x then CosA = ?

1) x2+1√xx2+1x

2) xx2−1√xx2−1

3) x2−1√xx2−1x

4) xx2+1√xx2+1

Ans. Sinθ = Perpendicular / Hypotenuse

SinA = 1/x

Comparing get,

Perpendicular = 1 and Hypotenuse = x

Base = $\sqrt{x^2 - 1}$

CosA = Base / Hypotenuse

⇒ CosA = $\sqrt{x^2 - 1}$ / x

∴ CosA = $\sqrt{x^2 - 1}$ / x

Que. 73
Two statements are given, followed by two conclusions numbered I and II. Assuming the statements to be true, even if they seem to be at variance with commonly known facts, decide which of the conclusions logically follow(s) from the statements.
Statements:
No actor is an engineer.
All engineers are magicians.
Conclusions:
I. No magician is an engineer.
II. Some magicians are engineers.
1) Only conclusion I follows
2) Both conclusions follow
3) Either conclusion I or II follows
4) Only conclusion II follows

Ans. 1) No magician is an engineer False (As we have All engineers are magicians)
II) Some magicians are engineers
True (All engineers are magicians)
Hence, the correct answer is the Only conclusion II follows.

Que. 74
In which body part can one find the Synovial fluid?
1) Muscles
2) Liver
3) Kidney
4) Joints

Ans. Synovial fluid is a lubricating fluid found in the cavities of synovial joints.

Que. 75
tanα = a/b then the value of Sinα + Cosα is:
1) a2+b2√a+ba2+b2a+b
2) a+ba2+b2√a+ba2+b2
3) a2−b2√a+ba2−b2a+b

4) a+ba2−b2√a+ba2−b2

Ans. tanα = a/b and
tanα = Perpendicular / Base Comparing above two get,
Perpendicular = a and
Base = b
Hypotenuse = √a2 + b2
Sinα = Perpendicular/Hypotenuse
= Sinθ = a/√a2 + b2
Cosα = Base/Hypotenuse
= Cosα = b/√a2 + b2
Sinα + Cosα = (a/√a2 + b2) + (b/√a2 + b2)
= Sinα + Cosα = a + b /√ a 2 + b 2
∴ Sinα + Cosα = a + b /√ a 2 + b 2

Que. 76
Direction: In the question below there are two statements followed by two conclusions I and II. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.
Statements:
I. All bottles are cups.
II. Some cups are jugs.
Conclusions:
I. Some bottles are jugs.
II. No jug is cup.
1) Only conclusion I follows.
2) Only conclusion II follows.
3) Either conclusion I or II follows.
4) Neither conclusion I nor II follows.

Ans. Only conclusion I follows.

Que. 77
In which part of the body is the cornea and the retina found?
1) Palm
2) Ear
3) Nose
4) Eye

Ans. The cornea and the retina found in Eye.

Que. 78
What is the difference between the largest and smallest number of six digits?
1) 90000
2) 899999
3) 89999
4) 889999

Ans. Largest number of six digit is 999999
Smallest number of six digit is 100000
Difference between this two number is (999999 - 100000) = 899999
∴ The difference between largest and smallest number of six digit is 899999.

Que. 79
Direction: In the question below there are two statements followed by two conclusions I and II. You have to take the two given statements to be true even if they seem to be at variance from commonly known facts and then decide which of the given conclusions logically follows from the given statements disregarding commonly known facts.
Statements:
I. All shirts are trousers.
II. No trousers are the jacket.
Conclusions:
I. Some shirts are jackets.
II. Some jackets are trousers.
1) Only conclusion I follows.
2) Only conclusion Ii follows.
3) Either conclusion I or II follows.
4) Neither conclusion I nor II follows.

Ans. Neither conclusion I nor II follows.

Que. 80
What is the main aim of the Montreal Protocol?
1) Protection of the Ozone layer
2) Biodiversity Conservation
3) Global Warming

4) Climate Change

Ans. The main aim of the Montreal Protocol is Protection of the Ozone layer.

Que. 81
A man was traveling half of the total distance at a speed of 30 km/h and the rest distance at the speed of 50 km/h. What was the average speed of the man on his whole journey?
1) 40 km/hr
2) 37.5 km/hr
3) 42.5 km/hr
4) 35 km /hr

 Ans. Average speed when distance covered is same = 2xy/(x + y)
Average speed = 2 × 30 × 50/(30 + 50) km/hr
= 3000/80 km/hr
= 37.5 km/hr
∴ The average speed for the whole journey is 37.5 km/hr

Que. 82
Study the following information carefully to answer the given questions:
If 'P @ Q' means that P is the wife of Q,
'P % Q' means that P is the son of Q,
'P $ Q' means that P is the father of Q,
'P # Q' means that P is the mother of Q.
How is A related to Y in the given relation M @ C % A $ B # Y?
1) Mother
2) Maternal Grandfather
3) Grandmother
4) Can't be determined

Ans. A is a Maternal Grandfather Y
The correct answer is Maternal Grandfather.

Que. 83
In February 2020, the Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme has completed in one year. Where was the scheme launched?
1) Jaipur
2) Gorakhpur
3) Kochi
4) Gandhinagar

Ans. The Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme was launched in Gorakhpur, Uttar Pradesh.

Que. 84
Ratio of two numbers is 5 : 6 and their HCF is 6. LCM of these two numbers is:
1) 150
2) 180
3) 90
4) 120

Ans. Let the numbers be 5x and 6x respectively
HCF of 5x and 6x = x
Now, according to the question x = 6
Now, Numbers = 5x = 5 × 6 = 30
Second number = 6x = 6 × 6 = 36
Now, LCM = (30 × 36)/6 ⇒ 180
∴ The LCM of these two numbers is 180

Que. 85
A is brother of B. B is the brother of C. C is the husband of D. E is the father of A.
D is related to E as
1) Daughter
2) Daughter-in-law
3) Sister-in-law
4) Sister

Ans. A is the brother of B.
B is the brother of C,
C is the husband of D,
E is the father of A.
Hence, D is the Daughter-in-law of E

Que. 86
GST was introduced as the _____ amendment act.
1) 100
2) 101
3) 102
4) 103

Ans. Goods and Services Tax (GST) was introduced in India as the 101st Amendment Act.

Que. 87
HCF of 910,325,615,125,910,325,615,125 is:
1) 50
2) 1150
3) 350
4) 150

Ans. $910 = 2 \times 5 \times 7 \times 13$

$325 = 5^2 \times 13$

$615 = 3 \times 5 \times 41$

$125 = 5^3$

HCF = 5

Que. 88
What is the number of triangles in the following figure?

1) 7
2) 9
3) 11
4) 5
Ans. 7

Que. 89
Onam is a festival celebrated in which Indian state?
1) Karnataka
2) Kerala
3) Goa
4) Tamil Nadu

Ans. Onam is a festival celebrated in the Indian state of Kerala.

Que. 90
The given pie chart represents the marks of a student in Maths, Hindi, English, Science and Computer Science. The Total marks is 540.
The subject in which student scored 135 marks is
1) Maths
2) English
3) Hindi
4) Science

Ans. Maths

Que. 91
If '+' means '×', '-' means '÷', '×' means '-' and '÷' means '+', then choose the correct expression from the following options.
1) 30 - 3 ÷ 7 + 2 × 21 = 4
2) 39 - 13 × 6 + 3 ÷ 19 = 3
3) 9 + 4 ÷ 8 + 3 × 10 = 50
4) 16 + 2 ÷ 8 - 4 × 9 = 30

Ans. Option 3
9x4+8×3-10
36+24-10
= 50

Que. 92
The headquarter of National Bank For Agriculture & Rural Development (NABARD) is in:
 1) Delhi
2) Chandigarh
3) Kolkata
4) Mumbai

Ans. The headquarters of the National Bank for Agriculture and Rural Development (NABARD) is located in Mumbai, Maharashtra.

Que. 93
The average marks of subject Maths and English is

1) 90
2) 120
3) 110
4) 115

Ans. 90

Que. 94
If 'MINISTER' can be coded as 'RETSINIM', then how would you code 'PRESIDENT'?
1) SIPRETNED
2) TNEDISERP
3) PREDENTSI
4) TNEDIPRES

Ans. "MINISTER' can be coded as 'RETSINIM'
The pattern followed here is, the letters of the word are written in reverse order,
Here we see PRESIDENT is coded as TNEDISERP.
Hence, the correct answer is TNEDISERP.

Que. 95
The FIFA Football World Cup of 2022 will be hosted by _____.
1) USA
2) UAE
3) Qatar
4) Russia

Ans. The FIFA Football World Cup of 2022 will be hosted by Qatar.

Que. 96
Find the difference of marks of the sum of Maths and English to the sum of Computer Science and Science.
1) 40
2) 50