RRB NTPC 11 Jan 2021 Shift 1 Solution

1. What is the LCM of 14, 21 and 28?
a. 48
b. 588
c. 84
d. 7

Ans. c
Explanation:
Given:
LCM of 14, 21 and 28
Concept used:
LCM - The least common multiple or lowest common multiple, or smallest common multiple of two integers a and b usually denoted by lcm (a, b) is the smallest power integer that is divisible by both a and b.
Calculation:
LCM of 14, 21 and 28 is
⇒ 2 × 2 × 3 × 7
⇒ 84
∴ The required LCM is 84

2. Who is the co-founder of Apple Computers?
a. Bill Gates
b. Charles Flint
c. Paul Allen
d. Steve Jobs

Ans. d
Explanation:
The correct answer isSteve Jobs.
Apple is an American multinational technology company.
It was founded in 1976 by Steve Jobs, Steve Wozniak and Ronald Wayne.

3. Asia's largest Indira Gandhi Memorial Tulip garden is situated in which city?

a. Shimla
b. Manali
c. Ganatok
d. Srinagar

Ans. d
Explanation:
The correct answer isSrinagar.
Indira Gandhi Memorial Tulip garden is a tulip garden in Srinagar.

4. If Sinθ – $\sqrt{3}$ cosθ = 0 (θ is an acute angle), then the value of sin2θ – cos2θ is:
a. –$\frac{1}{2}$
b. 1
c.$\frac{\sqrt{3}-1}{2}$
d. $\frac{1}{2}$

Ans. d
Explanation:
Given:
Sinθ – $\sqrt{3}$ cosθ = 0
Formula used:
tan 60° = √3
sin 60° = √3/2
cos 60° = 1/2
Calculation:
Sinθ – $\sqrt{3}$ cosθ = 0
⇒ Sinθ = √3 Cosθ
⇒ tanθ = √3
⇒ θ = 60°
Now,
sin 2θ – cos 2θ = sin
260° – cos
260°
⇒ (√3/2)2 – (1/2)2

⇒ (3/4 – 1/4)
⇒ (3 – 1)/4
⇒ 2/4
⇒ 1/2
∴ Required value is 1/2

5. In an examination Mohit got 30% of the maximum marks but failed by 25 marks. Another student who scored 38% got 15 marks more than the pass marks. The necessary pass percentage required is:
a. 50%
b. 35%
c. 34%
d. 53%

Ans. b
Explanation:
Given:
Mohit got 30% marks and failed by 25 marks
Another student scored 38% and
He got 15 more marks than passing marks
Calculation:
According to the question
⇒ 30% + 25 = 38% – 15
⇒ (38% – 30%) = (15 + 25)
⇒ 8% = 40
⇒ 1% = 5 marks
Now,
5% = 25 marks
Then,
The necessary pass percentage required = (30% + 5%)
⇒ 35%
∴ Required pass percentage is 35%

6. The symbol used for Magnesium is:
a. Mn
b. Ma
c. Mo

d. Mg

Ans. d
Explanation:
The correct answer isMg.
Magnesium is a chemical element with the symbol Mg.

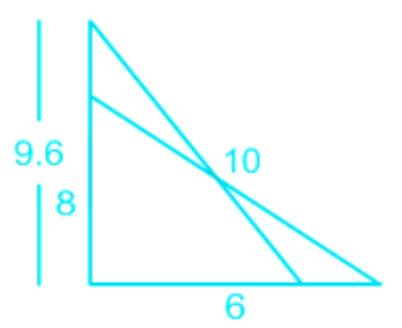
7. Simplify:
5 × 42 – 3 + 27 ÷ 3
a. 110
b. 216
c. 218
d. 204

Ans. b
Explanation:
Concept Used:
Follow the BODMAS rule
Calculation:
5 × 42 – 3 + 27 ÷ 3
⇒5 × 42 – 3 + 9
⇒ 210 – 3 + 9
⇒ 219 - 3
⇒ 216
∴ The required value is 216

8. A 10 feet long ladder leaning against a wall, reaches the wall at a point 8 feet high. By how much distance should the ladder be moved towards the wall so that its top reaches a point at 9.6 feet high?
a. 4.4 ft
b. 3.2 ft
c. 2.8 ft
d. 3.92 ft

Ans. b
Explanation:
Given:

A ladder leaning against a wall = 10 feet
Height of ladder = 8 feet
Formula used:
P2 = H2– B2
Calculation:



Let the distance of the ladder be x
P 2 = H 2– B2
⇒ P2 = (10)2– (8)2
⇒ P2 = (100 – 64)
⇒ P2 = 36
⇒ P = 6
Now,
According to the question
⇒ (6 – x) = √(10)2– (9.6)2
⇒ (6 – x) = √(100 – 92.16)
⇒ (6 – x) = √7.84
⇒ (6 – x) = 2.8
⇒ x = (6 – 2.8)
⇒ x = 3.2
∴ The distance of the ladder be 3.2 ft

9. A 15 high tree is broken by the wind in such a way that its top touches the ground and makes an angle of 60º with the ground. At what height from the bottom is the tree broken?

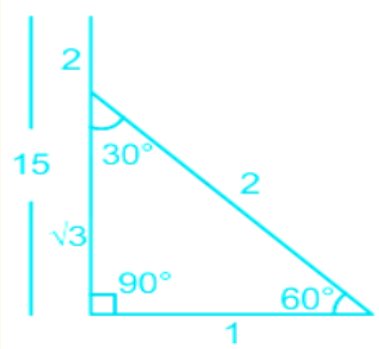
a. $\frac{15}{1+\sqrt{3}}$**m**

b. $\frac{30\sqrt{3}}{2+\sqrt{3}}$**m**

c. $\frac{15\sqrt{3}}{2+\sqrt{3}}$**m**

d. 5 m

Ans. c
Explanation:
Given:
Height of tree = 15 m
Formula used:
tan 60° = √3
H2 = P2– B2
Calculation:



According to the question
H 2 = P 2 +B2
⇒ (√3)2 +(1)2
⇒(3 +1)
⇒ H = 2
Now,
⇒ 2 + √3 = 15
⇒ 1 = 15/(2 + √3)
Then,
⇒ √3 = 15/(2 + √3)
⇒ 15/(2 + √3) × √3
⇒ 15√3/(2 + √3) m
∴ Required height from the bottom is the tree broken is $\frac{15\sqrt{3}}{2+\sqrt{3}}$ m.

10. Which body is responsible to regulate, promote and ensure orderly growth of the insurance industry in India?
a. ICICI
b. CRISIL
c. RBI

d. IRDAI

Ans. d
Explanation:
The correct answer isIRDAI.
The Insurance Regulatory and Development Authority of India (IRDAI) is a regulatory body under the jurisdiction of the Ministry of Finance, Government of India.

11. What does PSLV stand for?
a. Polar Satellite Launch Vehicle
b. Public Satellite Launch Vehicle
c. Private Satellite Launch Vehicle
d. Partner Satellite Launch Vehicle

Ans. a
Explanation:
The correct answer is Polar Satellite Launch Vehicle
PSLV (Polar Satellite Launch Vehicle) is an indigenously-developed expendable launch system of the ISRO (Indian Space Research Organization).

12. In which of the following Indian National Congress (INC) sessions was the National Anthem sung for the first time?
a. 1911, Kolkata
b. 1916, Lucknow
c. 1917, Kolkata
d. 1907, Surat

Ans. a
Explanation:
The correct answer is 1911, Kolkata.
The National Anthem was first sung on the second day of the annual conference of the Indian National Congress (INC) in Kolkata on December 27, 1911.

13. In a certain code language, 'LEGAL' is written as '37'. How will 'EAGLE' be written as in that language?
a. 35

b. 25
c. 30
d. 36

Ans. c
Explanation:
The logic followed here is:
We add place value of all letters, we get Ans.-
L(12) E(5) G(7) A(1) L(12) = 12 + 5 + 7 + 1 + 12 = 37,
Similarly,
E(5) A(1) G(7) L(12) E(5) = 5 + 1 + 7 + 12 + 5 = 30.
Hence, "option 3" is the correct answer.

14. Who wrote the novel 'The White Tiger'?
a. Chetan Bhagat
b. Vikram Seth
c. Khushwant Singh
d. Aravind Adiga

Ans. d
Explanation:
The correct answer is Aravind Adiga.
The White Tiger
It is a novel by Indian author Aravind Adiga.
It was published in 2008 and won the 40
th Man Prize.

15. Simplify:

$$\sqrt{51 + \sqrt{134 + 5\sqrt{42 + \sqrt{16} + \sqrt{9}}}}$$

a. 8
b. 64
c. 197
d. 520

Ans. a
Explanation:

Given:

$\sqrt{51 + \sqrt{134 + 5\sqrt{42 + \sqrt{16} + \sqrt{9}}}}$

Calculation:

$\sqrt{51 + \sqrt{134 + 5\sqrt{42 + \sqrt{16} + \sqrt{9}}}}$

$\sqrt{51 + \sqrt{134 + 5\sqrt{42 + \sqrt{16} + 3}}}$

$\Rightarrow \sqrt{51 + \sqrt{134 + 5\sqrt{42 + 4 + 3}}}$

$\Rightarrow \sqrt{51 + \sqrt{134 + 5(7)}}$

$\Rightarrow \sqrt{51 + \sqrt{134 + (35)}}$

$\Rightarrow \sqrt{51 + \sqrt{169}}$

$\Rightarrow \sqrt{51 + 13}$

$\Rightarrow \sqrt{64}$

$\Rightarrow 8$

$\therefore$ The required value is 8

16. 16 men can complete a work in 12 days. 12 women can complete the same work in 32 days. 16 men and 16 women together worked for 4 days, after which the women dropped out and 16 more joined. In how many days will be the men be able to complete the remaining work?

a. 3 days

b. 2 days

c. 4 days

d. 5 days

Ans. a

Explanation:

Given:

Number of work completed by 16 men = 12 days

Number of work completed by 12 women = 32 days

Number of work completed by 16 men and 16 women together = 4 days

Formula used:

Work = Efficiency × Time

Calculation:
According to the question
⇒ 16m × 12 = 12w × 32
⇒ m = 2w
Total work = 16m × 12 = (16 × 1 × 12)
⇒ 192
Work done by 16 men and 16 women = 4 days
⇒ 16 women = 8 men
Thus, the number of men complete the work in 4 days = [(16 + 8) × 4]
⇒ (24 × 4)
⇒ 96
Work remaining = (192 – 96)
⇒ 96
Total men to complete the remaining work = [96/(16 + 16)]
⇒ (96/32) days
⇒ 3 days
∴ Required time to complete the remaining work by men is 3 days

17. Four animals have been give, out of which three are alike in some manner and one is different. Select the odd one.
a. Cow
b. Sheep
c. Goat
d. Dog

Ans. d
Explanation:
The logic followed here is:
All Cow, Sheep and Goat except dog came under the category of cattle.
Hence, "option 4" is the correct answer.

18. In the UN Security Council there are:
a. 10 permanent and 10 non-permanent members
b. 5 permanent and 10 non-permanent members
c. 5 permanent and 5 non-permanent members
d. 10 permanent and 5 non-permanent members

Ans. b
Explanation:
The correct answer is 5 permanent and 10 non-permanent members.
The Security Council has primary responsibility for the maintenance of international peace and security.
It is consists of 15 members of which 5 are permanent while the other 10 are non-permanent members.

19. Travellers in deserts often tend to have an optical illusion of a sheet of water where none actually exists. What is this
a. Reflection
b. Diversion
c. Mirage
d. Scattering

Ans. c
Explanation:
The correct answer isMirage.
Key Points
A mirage is a naturally-occurring optical phenomenon in which light rays bend via refraction to produce a displaced image of distant objects or the sky.

20. Simplify:
(1-$\frac{1}{2}$)(1-$\frac{1}{3}$)------(1-$\frac{1}{9}$)(1-$\frac{1}{10}$)
a.$\frac{5}{6}$
b.0
c.$\frac{1}{10}$
d.$-\frac{1}{10}$

Ans. c
Explanation:
Calculation:
(1-$\frac{1}{2}$)(1-$\frac{1}{3}$)------(1-$\frac{1}{9}$)(1-$\frac{1}{10}$)
⇒ (1 – 1/2) (1 – 1/3) (1 – 1/4) (1 – 1/5).....(1 – 1/9) (1 – 1/10)
⇒ 1/2 × 2/3 × 3/4 × 4/5....8/9 × 9/10

⇒ 1/10
∴ The required value is 1/10

21. Mohan borrowed an amount of Rs. 18,000 and paid a simple interest of Rs. 2,700 at 10% per annum. Find the duration for
a. 3 years
b. $\frac{3}{2}$years
c. $\frac{2}{3}$years
d. $\frac{3}{20}$years3

Ans. b
Explanation:
Given:
Principal = Rs. 18,000
SI = Rs. 2700
Rate = 10%
Formula used:
SI = (P × R × T)/100
Calculation:
According to the question
⇒ 2700 = (18000 × 10 × t)/100
⇒ 2700 = 1800t
⇒ t = 2700/1800
⇒ t = 3/2
∴ The required time is 3/2 years

22. Aedes mosquito is a carrier of:
a. typhoid
b. cholera
c. dengue
d. Malaria

Ans. c
Explanation:
The correct answer isDengue.
Dengue is a mosquito-borne tropical disease caused by the dengue virus.

Its symptoms typically begin three to fourteen days after infection.

23. Sarva Shiksha Abhiyan is a Government of India flagship programme, making free and compulsory education to children in the age group of _____.
a. 5-14 years
b. 8-14 years
c. 7-14 years
d. 6-14 years

Ans. d
Explanation:
The correct answer is6-14 years.
Sarva Shiksha Abhiyan provides elementary education to all children in the age group of 6 to 14 years.

24. Find the value of the given expression.
6 + 4 × 10 ÷ 2 – 9
a. 18
b. 41
c. 42
d. 17

Ans. d
Explanation:
Concept Used:
Calculation:
6 + 4 × 10 ÷ 2 – 9
⇒6 + 4 × 5 – 9
⇒ 6 + 20 – 9
⇒ 26 – 9
⇒ 17
∴ The required value is 17

25. Simplify:
5 + [7^2 – 6 × 4 (12 ÷ 6)] + 7 × (5 – 3)
a. –2

b. 20
c. 363
d. 19

Ans. b
Explanation:
Concept Used:
Follow the BODMAS rule
Calculation:
5 + [7 2 – 6 × 4 (12 ÷ 6)] + 7 × (5 – 3)
⇒5 + [49 – 6 × 4 (12 ÷ 6)] + 7 × (5 – 3)
⇒ 5 + [49 – 6 × 4 × 2] + 7 × (5 – 3)
⇒ 5 + [49 – 48] + 7 × (5 – 3)
⇒ 5 + 1 + 7 × (5 – 3)
⇒ 5 + 1 + 7 × 2
⇒ 5 + 1 + 14
⇒ 20
∴ The required value is 20

26. Select the number from among the given option that can replace the question mark (?) in the following series.
1, 8, 27, 64, 125, ?
a. 256
b. 236
c. 264
d. 216

Ans. d
Explanation:
The logic followed here is:
The numbers in the series are cubes of natural numbers.

$1^3 = 1 \longrightarrow 2^3 = 8 \longrightarrow 3^3 = 27 \longrightarrow 4^3 = 64 \longrightarrow 5^3 = 125 \longrightarrow \boxed{6^3 = 216}$

Hence, "option 4" is the correct answer

27. By selling an article for Rs. 2,340, the dealer loses 10% At what price should he sell the article to gain 15%?

a. Rs. 2,600

b. Rs. 2,350

c. Rs. 2,365

d. Rs. 2,990

Ans. d

Explanation:

Given:

SP of an article = Rs. 2,340

Loss = 10%

Gain = 15%

Formula used:

SP = CP × [(100 – L oss%)/100]

SP = CP × [(100 + Gain%)/100]

Calculation:

According to the question

SP = CP × [(100 – L oss%)/100]

⇒ 2,340 = CP × [(100 – 10)/100]

⇒ 2,340 = CP × 90/100

⇒ CP = (2,340 × 100/90)

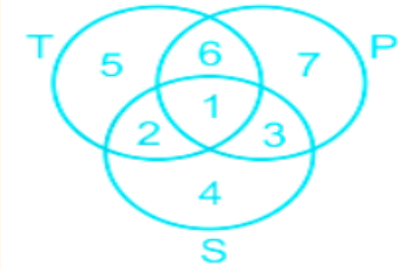
⇒ CP = Rs. 2,600

New SP = (2,600 × 115/100)

⇒ Rs. 2,990

∴ The required SP is Rs. 2,990

28. In the given diagram, circle T represent 'teachers', circle S represent 'students' and circle P represent 'principles'. The region are denoted by the numbers 1 to 7. Based on the diagram answer the question given below.



Select the region that represent teaches who are neither students nor principals.

a. 1

b. 2

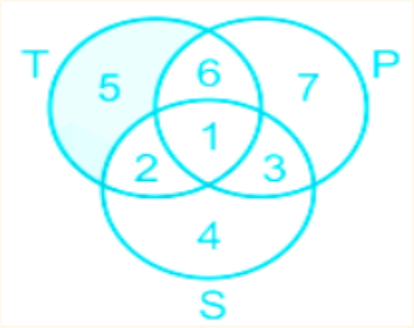
c. 5

d. 6

Ans. c

Explanation:

The Venn diagram is given below:-



The shaded part is the teaches who are neither students nor principals.

So, 5 teachers who are neither students nor principals.

Hence, "option 3" is the correct answer.

29. In the following series, how many times is the number 8 NOT followed by the number 4 but is preceded by the number 5?

6582358125834356545865845 8

a. 5

b. 4

c. 3

d. 2

Ans. a

Explanation:

The logic followed here is:

Condition to be checked:

i) The number 8 not followed by the number 4 but is preceded by the number 5 are given below:-

5 → 8 → Not 4 (4)

6 5 8 23 5 8 12 5 8 34 3 5 6 5 4 5 8 65 8 4 5 8

So, there are 5 pairs in which the number 8 is not followed by the number 4 but is preceded by the number 5.
Hence, "option 1" is the correct answer.

30. In a certain code language, 'RAHUL' is written as '60'. How will 'ARUN' be written as in that language?
a. 56
b. 52
c. 45
d. 54

Ans. d
Explanation:
The logic followed here is:
We add place value of all letters, we get Ans.-
R(18) A(1) H(8) U(21) L(12) = 18 + 1 + 8 + 21 + 12 = 60,
Similarly,
A(1) R(18) U(21) N(14) = 1 + 18 + 21 + 14 = 54.
Hence, "option 4" is the correct answer.

31. The mean of ages of a group of 35 school students is 16 years. A 52 year old teacher joined the group. Find the mean of the ages of the students and the teacher.
a. 34 years
b. 43.5 years
c. 36 years
d. 17 years

Ans. d
Explanation:
Given:
The mean of ages of a group of 35 students = 16 years
Age of teacher = 52 years
Formula used :
Average = Sum of observations/Number of observations
Calculation:
According to the question

The mean ages of 35 students = (35 × 16)
⇒ 560
A old teacher joined the group = (52 + 560)
⇒ 612
Now,
The total age of students and teacher = (35 + 1) = 36
The mean ages of the students and teacher = (612/36)
⇒ 17
∴ Required ages is 17 years

32. Each elements has a name and _____.
a. a unique chemical symbol
b. a unique physical symbol
c. a unique colour
d. a unique shape

Ans. a
Explanation:
The correct answer isa unique chemical symbol.

33. In a parliamentary system, the legislative, judicial and emergency powers are in reality used by the President only on the advice of the_____.
a. Council of Ministers
b. Chief Minister
c. Members of the Parliament
d. Vice President

Ans. a
Explanation:
The correct answer isCouncil of Ministers
Prime Minister and other Ministers are collectively known as Council of Ministers.

34. A hollow metallic sphere has internal and external radius of 3 cm and 5 cm respectively. It is melted and recast as a solid cylinder with radius 7 cm. What is the height of the cylinder?
a. 3 cm
b. 8 cm

c. $\frac{8}{3}$ **cm**

d. $\frac{2}{3}$**cm**

Ans. c
Explanation
Given:
The internal radius of hollow sphere = 3 cm
The external radius of hollow sphere = 5 cm
Radius of cylinder = 7 cm
Formula used:
Volume of hollow sp
here = 4/3π × (R3– r3) Volume of cylinder = πr
2h
Calculation:
According to the question
Volume of hollow sphere = 4/3 × π × $(5^3 - 3^3)$
⇒ 4/3 × π × (125 – 27)
⇒ 4/3 × π × 98
⇒ 392π/3 cm 3
Now,
Volume of cylinder = volume of the sphere
⇒ πr2h = 392π/3
⇒ π × (7)2 × h = 392π/3
⇒ 49π × h = 392π/3
⇒ h = (392π/49π × 3)
⇒ h = 8/3 cm
∴ The height of the cylinder is 8/3 cm

35. Tea and coffee fall under which category of crops in India?
a. Horticulture crops
b. Plantation crops
c. Cash crops
d. Food crops

Ans. b
Explanation:

The correct answer isPlantation crops.
Plantation crops
The term plantation crops refer to those crops which are cultivated on an extensive scale in a contiguous area owned and managed by an individual or a company.

36. Four numbers have been given, out of which three are alike in some manner and one is different. Select the different one.
a. 10
b. 2
c. 5
d. 7

Ans. a
Explanation:
The logic followed here is:
2, 5 and 7 are the prime number but 10 is non prime number.
Prime number:- A number that can be divided exactly only by itself and 1.
Hence, "option 1" is the correct answer.

37. Clearance of snow in high altitude areas is undertakes by:
a. Public Works Department
b. The Border Road Organisation
c. Snow Authority of India
d. Inland Waterways Authority

Ans. b
Explanation:
The correct answer isThe Border Road Organisation.
The Border Roads Organisation (BRO) is a road construction executive force in India that provides support to and is a part of the Indian Armed Forces.

38. One of the most important contributions of the British to India in 1853 which enabled people to travel long distance was_____.
a. the airways
b. the railways
c. the roadways

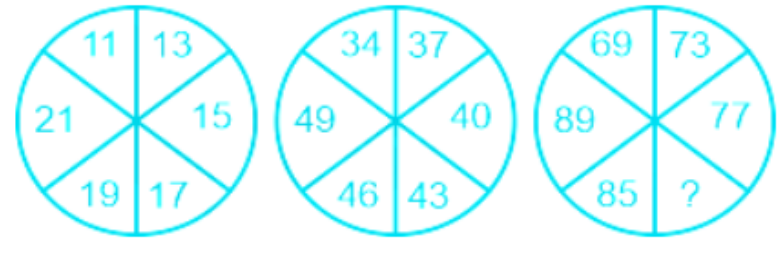
d. the waterways

Ans. b
Explanation:
The correct answer is the railways.
The first passenger train ran in India on 16th April 1853 from Bombay to Thane.
Railways in India were introduced during the rule of Lord Dalhousie.

39. A swimmer, whose speed is 9 km/h in still water, goes 9 km downstream in 45 minutes. Find the speed of the stream.
a. 6 km/h
b. 12 km/h
c. 9 km/h
d. 3 km/h

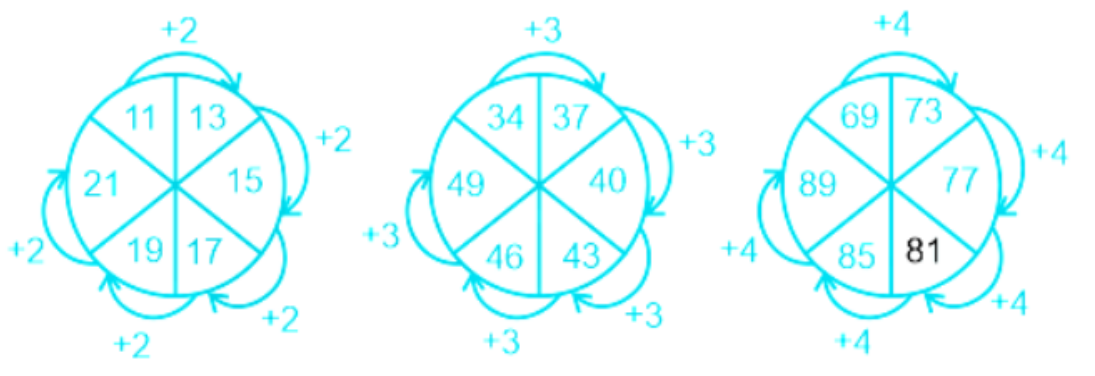
Ans. d
Explanation:
Given:
Speed of swimmer in still water = 9 km/h
Downstream = 9 km
Time = 45 min = (45/60) = 3/4
Formula used:
Speed = Distance/Time
Calculation:
Let the speed of the stream be x km/h
According to the question
⇒ 9 + x = 9/(3/4)
⇒ 9 + x = (9 × 4/3)
⇒ 9 + x = 12
⇒ x = (12 – 9)
⇒ x = 3 km/h
∴ The speed of the stream is 3 km/h

40. Study the given pattern carefully and select the number from among the given options that can replace the question mark (?).



a. 74
b. 81
c. 80
d. 78

Ans. b
Explanation:
The logic followed here is:



Hence, "option 2" is the correct answer.

41. Simplify:
1.1 + 1.001 + 10.01 + 11.11
a. 23.14
b. 3.124
c. 4.213
d. 23.221

Ans. d
Explanation:
Calculation:

1.1 + 1.001 + 10.01 + 11.11
⇒ 2.101 + 10.01 + 11.11
⇒ 12.111 + 11.11
⇒ 23.221
∴ The required value is 23.221

42. Which of the following cities is NOT in Madhya Pradesh?
a. Raipur
b. Jabalpur
c. Bhopal
d. Gwalior

Ans. a
Explanation:
The correct answer isRaipur.
Raipur is the capital city of the Indian state of Chhattisgarh.

43. Which movie won the 'Best Motion Picture of the Year' award at the Oscars 2020?
a. Parasite
b. Black Panther
c. Bohemian Rhapsody
d. A Star is Born

Ans. a
Explanation:
The correct answer isParasite
Parasite won the Oscar Awards 2020 for Best Picture.

44. Anil buys an article with 20% discount on the marked price and sells it at 8% discount on the marked price. Find his profit/loss loss percent.
a. 12% profit
b. 15% profit
c. 15% loss
d. 12% loss

Ans. b

Explanation:
Given:
CP at discount = 20%
SP at discount = 8%
Formula used:
Profit = SP – CP
Profit% = (Profit/CP × 100)
Calculation:
Let the listed price be Rs. 100
According to the question
CP at 20% discount = [(100 – 20)/100 × 100]
⇒ (80/100 × 100)
⇒ 80
SP at 8% discount = [(100 – 8)/100 × 100]
⇒ (92/100 × 100)
⇒ 92
Profit = (92 – 80)
⇒ 12
Profit% = (12/80 × 100)
⇒ 15%
∴ His profit% is 15
CP ∶ SP = (100 - 20) ∶ (100 - 8)

45. The LCM of two numbers is 24 times their HCF. The sum of the HCF and LCM is 750. If one of the numbers is 90, then find the other number.
a. 240
b. 30
c. 720
d. 25

Ans. a
Explanation:
Given:
The LCM of two numbers = 24 times their HCF
The sum of HCF and LCM = 750
One number = 90
Concept used:

Product of two numbers = HCF × LCM
Calculation:
Let the LCM and HCF be x and y respectively
⇒ x = 24y .....(1)
⇒ x + y = 750 ....(2)
Adding both the equations we get,
⇒ 24y + y = 750
⇒ 25y = 750
⇒ y = 30
Now put the value of y in equation (2) we get,
⇒ x + 30 = 750
⇒ x = (750 – 30)
⇒ x = 720
The other number = (HCF × LCM)one number
⇒ (720 × 30)/90
⇒ 240
∴ The other number is 240

46. The conversion of $0.0\overline{37}$ in the form $\frac{p}{q}$ is:

a. $\frac{37}{990}$

b. $\frac{37}{999}$

c. $\frac{37}{1000}$

d. $\frac{37}{100}$

Ans. a
Explanation:
Calculation:
Let x = 0.037...(1)
Multiplying by 10 in equation (1)
⇒ 10x = 0.37 ...(2)
Multiplying by 100 in equation (2)
⇒ 1000x = 37...(3)
Subtracting equation (2) from (3)
⇒ (1000x – 10x) = (37.37 – 0.37)
⇒ 990x = 37

⇒ x = 37/990
∴ The value of p/q is 37/990

47. Ram Sagar and Bhagat Ram enter into a partnership by investing in the ratio 10 : 13. Find Bhagat Ram's share in a profit of Rs. 8,050.
a. Rs. 4,025
b. Rs. 4,550
c. Rs. 1550
d. Rs. 3,500

Ans. b
Explanation:
Given:
Ratio of Ram Sagar and Bhagat Ram's = 10 : 13
Total profit = Rs. 8,050
Calculation:
Let the ratio of Ram Sagar and Bhagat Ram's be 10x and 13x respectively
According to the question
⇒ (10x + 13x) = 8,050
⇒ 23x = 8,050
⇒ x = 350
Now,
The share of Bhagat Ram's share = 13x = (13 × 350)
⇒ Rs. 4,550
∴ Required share of Bhagat Ram's is Rs. 4,550

48. Which of the following IITs has been declared one among the seven Eat Right Campus by FSSAI?
a. IIT Delhi
b. IITKanpur
c. IIT Ropar
d. IIT Gandhinagar

Ans. d
Explanation:
The correct answer isIIT Gandhinagar.
IIT Gandhinagar became India's first educational institute to receive Eat Right

Campus Award from FSSAI.

49. In the First Five Year Plan _____, the Government of India sought to get the country's economy out of the cycle of poverty.
a. 1955-1960
b. 1947-1952
c. 1951-1956
d. 1961-1965

Ans. c
Explanation:
The correct answer is1951-1956.
First Five Year Plan
The first Five-year plan was for the period of 1951 to 1956

50. Select the term that will come next in the following series.
Mercury, Venus, Earth, ?
a. Uranus
b. Jupiter
c. Saturn
d. Mars

Ans. d
Explanation:
The logic followed here is:
Here is the order of the planets, starting nearest from the sun and going away in the solar system.
Mercury, Venus, Earth, Mars , Jupiter, Saturn, Uranus, Neptune.
Hence, "option 4" is the correct answer.

51. What is the full form of FORTRAN?
a. FoxPro Translation
b. Foreign Translation
c. Fortitude Translation
d. Formula Translation

Ans. d

Explanation:
The correct answer is Formula Translation.

52. How many numbers between 100 and 1000 are completely divisible by 11?
a. 82
b. 79
c. 81
d. 80

Ans. c
Explanation:
Concept used:
Divisibility rule of 11 - The difference between the sum of digits and the odd and even places equals 0 or divisible by 11
t n = a + (n – 1) d
where, a = first number
d = common difference (t 2– t1)
n = last number
Calculation:
The first number between 100 and 1000 divisible by 11 = 110
The last number between 100 and 1000 divisible by 11 = 990
The numbers is 110, 121, 132, ...990
⇒ a = 110, d = (121 – 110) = 11, n = 990
According to the question
t n = a + (n – 1) d
⇒ 110 + (n – 1) × 11 = 990
⇒ 110 + 11n – 11 = 990
⇒ 11n – 11 = (990 – 110)
⇒ 11n – 11 = 880
⇒ 11n = (880 + 11)
⇒ 11n = 891
⇒ n = 81
∴ Required numbers is 81

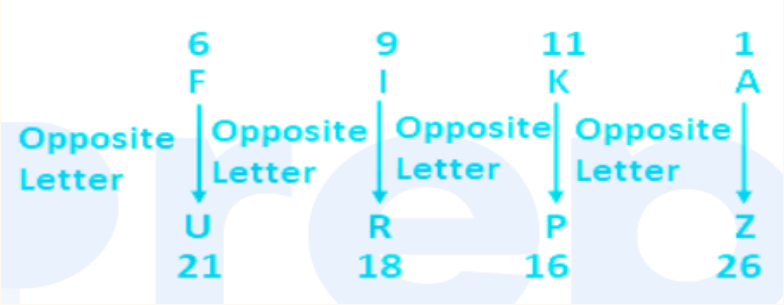
53. Which vitamin activates proteins and calcium essential for blood clotting?
a. Vitamin C
b. Vitamin D

c. Vitamin B1
d. Vitamin K

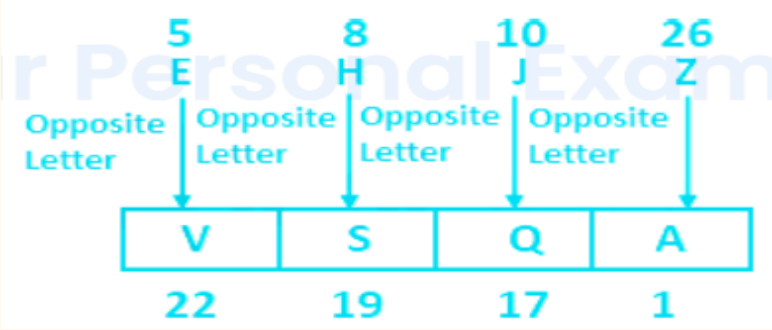
Ans. d
Explanation:
The correct answer is Vitamin K.
Vitamin K activates proteins and calcium essential for blood clotting.

54. In a certain code language, 'FIKA' is written as 'URPZ'. How will 'EHJZ' be written as in that language.
a. ZSQV
b. VSQA
c. VQSZ
d. AQSV

Ans. b
Explanation:
The logic followed here is:



Similarly,



Hence, "option 2" is the correct answer.

55. The organ of the government that primarily looks after the function of implementation and administration is called the_____.
a. Legislature
b. Parliament
c. Judiciary
d. Executive

Ans. d
Explanation:
The correct answer isExecutive.
The organ of government that primarily looks after the function of implementation and administration is called the Executive .

56. The length of a hall is 7 m more than its breadth. If its perimeter is 62 m, find the length of the hall.
a. 34.5 m
b. 19 m
c. 27.5 m
d. 12 m

Ans. b
Explanation:
Given:
The length of hall = 7 m more than its breadth
Perimeter of hall = 62 m
Formula used:
Perimeter of rectangle = 2(l + b)
Calculation:
Let the breadth of rectangle be x m
Length = (x + 7) m
Perimeter = 2(l + b) = 62
⇒ l + b = 31
⇒ x + 7 + x = 31
⇒ 2x = 24
⇒ x = 12 m
Now,
Breadth = x = 12 m

Length = (x + 7) = (12 + 7) = 19 m
∴ The length of the hall is 19 m

57. The earlier name of Bhabha Atomic Research Center was_____.
a. Atomic Energy Establishment, Trombay
b. Indira Gandhi Center for Atomic Research
c. Nuclear Power Corporation of India Limited
d. Bharatiya Nabhikiya Vidyut Nigam

Ans. a
Explanation:
The correct answer is Atomic Energy Establishment, Trombay.
Dr. Homi Jehangir Bhabha established the Atomic Energy Establishment, Trombay (AEET) in Jan 1954.

58. Kumud borrowed some amount at simple interest of 10% per annum for 1 year. Sneha borrowed the same amount at the same rate on compound interest (compounded semiannually) for the same period. If Sneha paid Rs. 61 more than Kumud as interest, then how much money did each of them borrow?
a. Rs. $\frac{61}{80}$
b. Rs. $\frac{1261}{80}$
c. Rs. 8,000
d. Rs. 4,000

Ans. c
Explanation:
Given:
Rate = 10%
Time = 3/2 years
Formula used:
If difference between CI and SI is 3 years then,
Difference = 3 × P(R)2/(100)2 + P (R/100)3
If compounded semiannually
Rate = 10/2 = 5%
Time = 3/2 × 2 = 3 years

Calculation:
According to the question
⇒ Difference = P × R2(300 + R)/1003]
⇒ 61 = (P × 25 × 305)/1003
⇒ 7625P =(61 × 100 × 100 × 100)
⇒ 7625P = 61,000,000
⇒ P = (61,000,000/7625)
⇒ P = Rs. 8,000
∴ Each of them borrowed Rs. 8,000

59. The sum of the digits of a two-digit number is 12. If the digits are reversed, seven times the new number equals to four times the original number. Find the number.
a. 57
b. 75
c. 84
d. 48

Ans. c
Explanation:
Given:
The sum of the digits of a two-digit number = 12
Calculation:
Let the two digit number be 10x + y
Sum of digits (x + y) = 12.....(1)
According to the question
⇒ 4(10x + y) = 7(10y + x)
⇒ 40x + 4y = 70y + 7x
⇒ (70y – 4y) = (40x – 7x)
⇒ 66y = 33x
⇒ x/y = 2/1
Now,
⇒ 2x + x = 12
⇒ 3x = 12
⇒ x = 4
Now,
First number = 2x = (2 × 4) = 8

Second number = x = 4
∴ The required number is 84

60. When is 'World Environment Day' celebrated?
a. 30th September
b. 31st May
c. 12th April
d. 5th June

Ans. d
Explanation:
The correct answer is 5th June.
Since 1974, World Environment Day has been celebrated every year on 5 June.

61. Which of the following is NOT a desert in India?
a. Rann of Kutch
b. The Thar desert
c. Indus valley desert
d. Spiti valley cold desert

Ans. c
Explanation:
The correct answer is the Indus valley desert.
The Indus Valley Desert is an almost uninhabited desert ecoregion of northern Pakistan.

62. The Congress annual session of December 1929 in Lahore was significant because of:
a. Indians becoming self-reliant
b. commitment to Purna Swaraj
c. the work done by the people of the country
d. the overwhelming majority

Ans. b
Explanation:
The correct answer is the commitment to Purna Swaraj.
The Indian National Congress, on 19 December 1929, passed the historic 'Purna

Swaraj' (total independence) resolution at its Lahore session.

63. As of October 2020, which of the following is NOT on the World Heritage list?
a. Agra Fort
b. Hawa Mahal
c. Elephanta Caves
d. Sun Temple

Ans. b
Explanation:
The correct answer isHawa Mahal.
As of October 2020 ,Hawa Mehal is not on the world heritage list .
Hawa Mehal registered on the World Heritage list in 2021 .

64. Four parts of the human body have been listed, out of which three are alike is some manner and one is different, Select the odd one.
a. Eyes
b. Nose
c. Ears
d. Hair

Ans. d
Explanation:
The correct answer isHair.
Except for Hair, all other options are examples of sense organs of a human body.
Hair is not a sense organ.

65. The median of 11, 13, 10, 9, 8, 20, 13 is:
a. 13
b. 9
c. 12
d. 11

Ans. d
Explanation:

Given:
The given data = 11, 13, 10, 9, 8, 20, 13
Concept used:
Case 1: When numbers of terms in data is odd
Median = Middle term value
Case 2: When numbers of terms in data is even
Median = (1
st middle term value + 2
nd middle term value)/2
Calculation:
Arranging data in ascending order
⇒ 8, 9, 10, 11, 13, 13, 20
The number of given data in odd terms that is 7
So,
Median = Middle term value
⇒ 11
∴ The required median is 11

66. As of November 2020, which team is number one in the ICC men's T20 Cricket rankings?
a. India
b. Austraila
c. England
d. West Indies

Ans.b
Explanation:
The correct answer isAustralia

67. Viticulture is_____.
a. vegetable cultivation
b. mango cultivation
c. flower cultivation
d. grape cultivation

Ans. d
Explanation:

The correct answer is grape cultivation.
Viticulture is the scientific study of grapes , most often with a focus on growth and production.

68. If people cannot be used as a resource they naturally appear as _____ to the economy.
a. indispensable
b. an asset
c. a liability
d. important

Ans. c
Explanation:
The correct answer is a liability.

69. If sum of squares of zeroes of the polynomial x2+ 9x + 3k is 21, then what is the value of k?
a. –17
b. 10
c. 30
d. 20

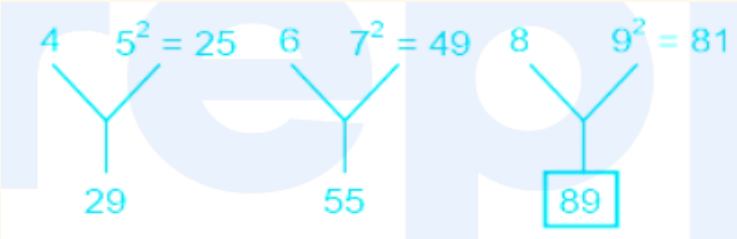
Ans. b
Explanation:
Given:
f(x) = x 2 + 9x + 3k
sum of squares of zero = 21
Formula used:
Sum of zero (α + β) = -b/a
Product of zero (α × β) = c/a
Calculation:
Let α and β are the zeroes of polynomial f(x)
Sum of zero = -b/a = (-9/1) = -9....(1)
Product of zero = c/a = (3k/1) = 3k....(2)
Now, from equation (1)
α + β = -9d
Squaring both sides, we get

(α + β)2 = (-9)2
⇒ α2 + β2 + 2αβ = 81....(3)
Now, sum of squares of zero = 21
α 2 + β2 = 21
Putting the value of equation (1) and (2) in (3), we get
⇒ 21 + 2 × 3k = 81
⇒ 6k = (81 – 21)
⇒ 6k = 60
⇒ k = 10
∴ The value of k is 10

70. Study the given pattern carefully and select the numbers from among the given options that can replace the question marks (?).

a. 79
b. 88
c. 89
d. 78

Ans. c
Explanation:
The logic followed here is:
Addition of the upper left side number and square of the upper right side number, then we get a lower number.
The figure is as follows:-



Hence, "Option 3" is the correct answer.

71. Which of the following is the tallest tree in the world?
a. Cedar
b. Pine
c. Spruce
d. Redwood

Ans. d
Explanation:
The correct answer isRedwood.
Redwood is a subfamily of coniferous trees within the family Cupressaceae .
It includes the largest and tallest trees in the world.

72. Aryan takes twice as much time as Vipin to finish a piece of work. Together they finish the same piece of work in 2 days. In how much time can Vipin do the same work?
a. 2 days
b. 3 days
c. 6 days
d. 4 days

Ans. b
Explanation:
Given:
Aryan takes twice as much time as Vipin to finish a work
Aryan and Vipin finish the work together = 2 days
Formula used:
Work = Efficiency × Time
Calculation:
LCM of 2 and 1 is 2
Efficiency of Aryan = 2/2 = 1 unit/day
Efficiency of Vipin = 2/1 = 2 units/days
Number of work completed by Aryan and Vipin together in 2 days = [2 × (1 + 2)]
⇒ (2 × 3) = 6 units/days
Now,
Number of time to completed the work by Vipin = (6/2) days
⇒ 3 days
∴ Required time to completed the work by Vipin is 3 days

73. Anita and Vineeta divide an amount of Rs.1,950 between themselves in the ratio 6 : 7. If an amount of Rs. 100 is added to each of their shares, what will be the new ratio of their shares?
a. 900 : 1050
b. 106 : 107
c. 20 : 23
d. 600 : 700

Ans. c
Explanation:
Given:
Ratio of Anita and Vineeta = 6 : 7
Total amount = Rs. 1,950
Amount added to each of their shares = Rs. 100
Calculation:
Let the ratio of Anita and Vineeta be 6x and 7x respectively
According to the question
⇒ (6x + 7x) = 1,950
⇒ 13x = 1,950
⇒ x = 150
Now, share of Anita = 6x = (6 × 150) = 900
Share of Vineeta = 7x = (7 × 150) = 1050
Now,
Adding Rs. 100 to the share of Anita = (900 + 100) = 1000
Adding Rs. 100 to the share of Vineeta = (1050 + 100) = 1150
The new ratio of Anita and Vineeta = (1000 : 1150)
⇒ 20 : 23
∴ Required ratio is 20 : 23

74. Study the given grid carefully and select the number from among the given options that can replace the question mark (?).

2	5	8
3	6	9
4	7	10
29	110	?

a. 240
b. 245
c. 190
d. 145

Ans. b
Explanation:
The logic followed here is:
For the first column:-
Addition of square of all three numbers then we get fourth row number.
2
2 + 3
2 + 4
2 = 4 + 9 + 16 = 29
For the second column:-
5 2 + 6 2 + 7 2 = 25 + 36 + 49 = 110
Similarly,
For the third column:-
8 2 + 9 2 + 10 2 = 64 + 81 + 100 = 245

2	5	8
3	6	9
4	7	10
29	110	245

Hence, "option 2" is the correct answer.

75. Gandhiji's campaign against the _____ was in response to the British censorship of the press and detention without trial.
a. World War I
b. British Rule
c. Jallianwala Bagh Massacre
d. Rowlatt Act

Ans. d
Explanation:
The correct answer is Rowlatt Act.
Gandhiji's campaign against the Rowlatt Act was in response to the British censorship of the press and detention without trial.

76. On which day is World Day to Combat Desertification and Drought observed?
a. 22nd May
b. 5th June
c. 22nd April
d. 17th June

Ans. d
Explanation:
The correct answer is17th June.
World Day to Combat Desertification and Drought is observed every year on 17 June

77. Demonetisation was announced by Prime Minister Narendra Modi on:
a. December 8, 2016
b. October 8, 2016
c. November 8, 2016
d. September 8, 2016

Ans. c
Explanation:
The correct answer is November 8, 2016.

78. As a social reformer, Gandhiji believed that Indians had to get rid of social evils. Which of the following is NOT a social evil?
a. Inflation
b. Child marriage
c. Illiteracy
d. Untouchability

Ans. a

Explanation:
The correct answer is Inflation.

79. Which of the following companies stopped making personal computers in 2005?
a. Dell
b. Acer
c. IBM
d. Asus

Ans. c
Explanation:
The correct answer isIBM
IBM stopped making personal computers in 2005.

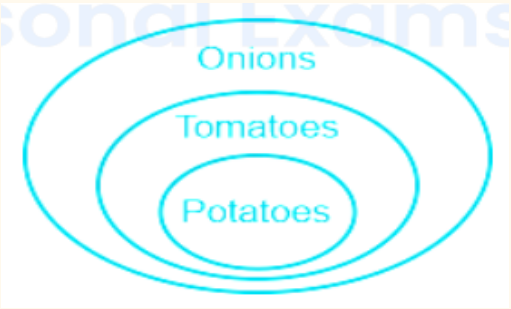
80. World Health Organisation (WHO) is headquartered in_____.
a. Amsterdam, Netherlands
b. Geneva, Switzerland
c. Vienna, Austria
d. New York City, America

Ans. b
Explanation:
The correct answer is Geneva, Switzerland.
The headquarters of the World Health Organisation is in Geneva, Switzerland.

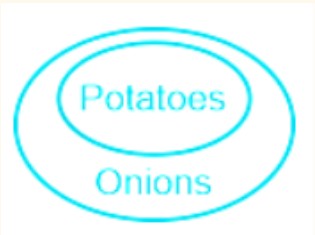
81. Read the given statements and conclusion carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion logically follow(s) from the statements.
Statements :
1. All the potatoes are tomatoes.
2. All the tomatoes are onions.
Conclusions:
I. All the onions are tomatoes
II. All the potatoes are onions.
a. Only II

b. Only I
c. Both I and II
d. Either I or II

Ans. a
Explanation:
The Venn diagram is as follows:-



Conclusions:
I. All the onions are tomatoes → False (All the tomatoes are onions also says that some onions are tomatoes but all the onions are not tomatoes.)
II. All the potatoes are onions → Ture (All the potatoes are tomatoes and all the tomatoes are onions that mean all the potatoes are onions.)



Hence, "option 1" is the correct answer.

82. _____ is the process under which farmers grow trees for commercial and non-commercial purposes on their lands.
a. Tree forestry
b. Farm forestry
c. Tree conservation
d. Forest conservation

Ans. b
Explanation:

The correct answer isFarm forestry
Farm forestry means growing trees on farmlands for commercial purposes like timber production or for a variety of non-commercial purposes like groundwater control, prevention of soil erosion, prevention of polluting nutrients in the soil, etc.

83. If the sum of five consecutive numbers is 90, then what is the middle number?
a. 18
b. 16
c. 17
d. 19

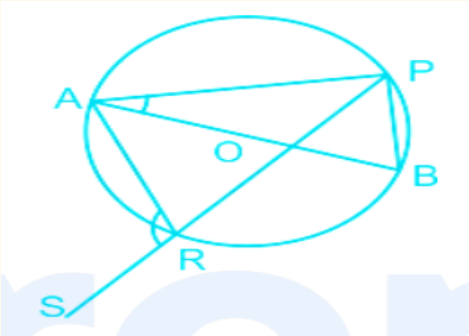
Ans. a
Explanation:
Given:
The sum of five consecutive numbers = 90
Calculation:
Let the five consecutive numbers be x, x + 1, x + 2, x + 3, x + 4 respectively
According to the question
⇒ (x, x + 1, x + 2, x + 3, x + 4) = 90
⇒ 5x + 10 = 90
⇒ 5x = 90 – 10
⇒ 5x = 80
⇒ x = 16
Now, the middle number = (x + 2) = (16 + 2)
⇒ 18
∴ Required middle number is 18

84. Shah Jahan's daughter _____ participated in many architectural project of the new capital of Shahjahanabad (Delhi).
a. Gulbadan Begum
b. Roshanara
c. Jahanara
d. Begum Ishrat

Ans. c

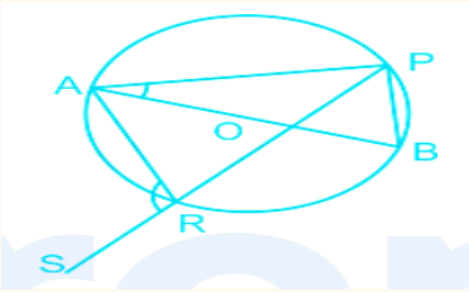
Explanation:
The correct answer is Jahanara.
Shah Jahan's daughter Jahanara participated in many architectural projects of the new capital of Shahjahanabad (Delhi).

85. In the given figure O is the centre of the circle. If ∠PAB = 35º, then find ∠ARS.



a. 65º
b. 115º
c. 125º
d. 55º

Ans. c
Explanation:
Given:
∠PAB = 35°
Calculation:



∠PAB = ∠BRP = 35° [Angle made in the same segment]
∠ARB = 90° [Angle made in a semicircle]
∠ARP + ∠BRP = 90°
∠ARP + 35° = 90°

∠ARP = (90° – 35°)
∠ARP = 55°
⇒ ∠ARP + ∠ARS = 180° [Linear pair]
⇒ ∠55° + ∠ARS = 180°
⇒ ∠ARS = (180° – 55°)
⇒ ∠ARS = 125°
∴ The value of ∠ARS is 125°

86. The following table shows CFC emission (in million metric tons) form various sectors for an industry for a period of 5 years. Based on the table answer the question given below.

Sector				
Year	Cement	Fertiliser	Foam	Pesticides
2015	200	500	80	100
2016	300	600	90	110
2017	320	650	100	120
2018	400	700	150	150
2019	450	800	200	180

Which sector has recorded the maximum percentage growth in CFC emission from 2015 to 2019?
a. Cement
b. Pesticides
c. Fertiliser
d. Foam

Ans. d
Explanation:
Calculation:
The percentage growth of Cement from 2015 to 2019 = [(450 – 200)/200 × 100]
⇒ (250/200 × 100)
⇒ 125%

The percentage growth of Fertilizer from 2015 to 2019 = [(800 – 500)/500 × 100]
⇒ (300/500 × 100)
⇒ 60%
The percentage growth of Foam from 2015 to 2019 = [(200 – 80/80 × 100]
⇒ (120/80 × 100)
⇒ 150%
The percentage growth of Pesticides from 2015 to 2019 = [(180 – 100)/100 × 100]
⇒ (80/100 × 100)
⇒ 80%
∴ The maximum growth in CFC from 2015 to 2019 in Foam

87. The following table shows CFC emissions (in million metric tons) from various sectors for an industry for a period of 5 years. Based on the table answer the question given below.

Sector				
Year	Cement	Fertiliser	Foam	Pesticides
2015	200	500	80	100
2016	300	600	90	110
2017	320	650	100	120
2018	400	700	150	150
2019	450	800	200	180

The contribution of CFC emission from the fertilizer sector, in comparison to the total CFC emissions from all the sectors, was the least in which year?
a. 2017
b. 2016
c. 2019
d. 2015

Ans. c
Explanation:

Calculation:
The total CFC emissions from all the sectors in 2015 = (200 + 500 + 80 + 100)
⇒ 880
The total CFC emissions from all the sectors in 2016 = (300 + 600 + 90 + 110)
⇒ 1100
The total CFC emissions from all the sectors in 2017 = (320 + 650 + 100 + 120)
⇒ 1190
The total CFC emissions from all the sectors in 2018 = (400 + 700 + 150 + 150)
⇒ 1400
The total CFC emissions from all the sectors in 2019 = (450 + 800 + 200 + 180)
⇒ 1630
Now,
The contribution of CFC emission from the fertilizer sector, in comparison to the total CFC emissions from all the sectors in 2015 = (500/880 × 100)
⇒ 56.81%
The contribution of CFC emission from the fertilizer sector, in comparison to the total CFC emissions from all the sectors in 2016 = (600/1100 × 100)
⇒ 54.54%
The contribution of CFC emission from the fertilizer sector, in comparison to the total CFC emissions from all the sectors in 2017 = (650/1190 × 100)
⇒ 54.62%
The contribution of CFC emission from the fertilizer sector, in comparison to the total CFC emissions from all the sectors in 2018 = (700/1400 × 100)
⇒ 50%
The contribution of CFC emission from the fertilizer sector, in comparison to the total CFC emissions from all the sectors in 2019 = (800/1630 × 100)
⇒ 49.07%
∴ The contribution of CFC emission from the fertilizer sector, in comparison to the total CFC emissions from all the sectors, was least in 2019

88. The following table shows CFC emissions (in million metric tons) from various sectors for an industry for a period of 5 years. Based on the table answer the question given below.

Sector				
Year	Cement	Fertiliser	Foam	Pesticides
2015	200	500	80	100
2016	300	600	90	110
2017	320	650	100	120
2018	400	700	150	150
2019	450	800	200	180

What is the percentage growth in CFC emissions from the pesticides sector from 2015 to 2019?
a. 50%
b. 70%
c. 90%
d. 80%

Ans. d
Explanation:
Calculation:
The percentage growth in CFC emissions from the pesticides sector from 2015 to 2019 = [(180 – 100)/100 × 100]
⇒ (80/100 × 100)
⇒ 80%
∴ The percentage growth in CFC emissions from the pesticides sector from 2015 to 2019 is 80%

89. The following table shows CFC emissions (in million metric tons) from various sectors for an industry for a period of 5 years. Based on the table answer the question given below.

Sector				
Year	Cement	Fertiliser	Foam	Pesticides
2015	200	500	80	100
2016	300	600	90	110
2017	320	650	100	120
2018	400	700	150	150
2019	450	800	200	180

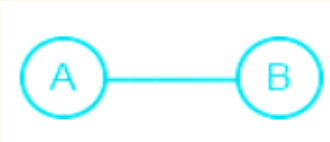
What is the approximate contribution in percentage in CFC emissions from the cement sector, in comparison to that of the total CFC emissions from all the sectors in 2017?
a. 19%
b. 27%
c. 24%
d. 60%

Ans. b
Explanation:
Calculation:
The percentage in CFC emissions from the Cement sector in 2017 = 320
The total CFC emissions from all the sectors in 2017 = (320 + 650 + 100 + 120)
⇒ 1190
Required percentage = (320/1190 × 100)
⇒ 26.89% ~ 27%
∴ The approximate contribution in percentage in CFC emissions from the cement sector, in comparison to that of the total CFC emissions from all the sectors in 2017 is 27%

90. Read the given statements and decide if the given conclusion is true, false or irrelevant with respect to the statements.
Statements:
I. A is the sister of B.
II. B is the daughter of C.

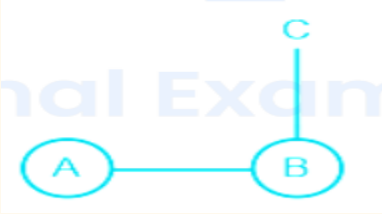
Conclusion:
B is the enemy of C.
a. Conclusion drawn is definitely true.
b. Conclusion drawn is definitely false.
c. Conclusion cannot be drawn.
d. Conclusion drawn is probably true.

Ans. c
Explanation:
The pattern followed here is:
The statement is given below:-
I. A is the sister of B



II. B is the daughter of C

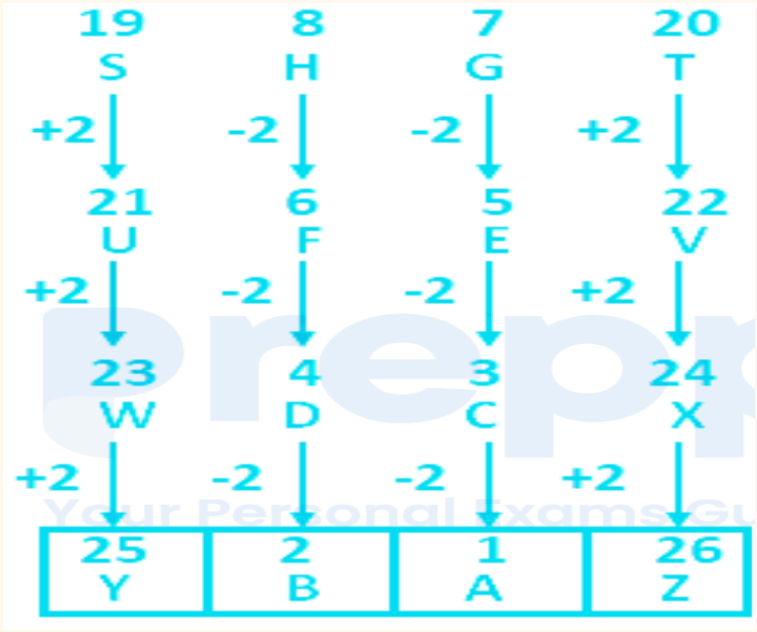
From statements I and II the family tree is given below:-



From the above figure, we can say that A and B are sisters and C is either father or mother of A and B.
In conclusion, B is the enemy of C cannot be drawn.
Hence, "option 3" is the correct answer.

91. Select the letter-cluster from among the given options that can replace the question mark (?) in the following series.
SHGT, UFEV, WDCX, ?
a. ZABY
b. AZYB
c. ZAYB
d. YBAZ

Ans. d
Explanation:
The logic followed here is:



Hence, "option 4" is the correct answer.

92. If all the odd numbers are removed from 3 to 39, then how many numbers remain?
a. 19
b. 16
c. 18
d. 17

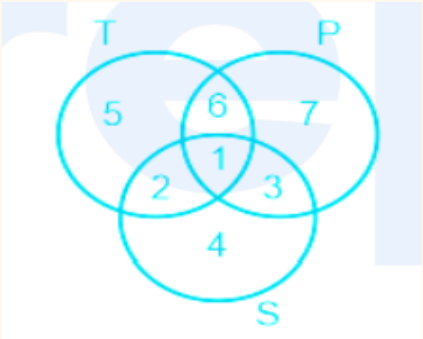
Ans. c

Explanation:
The total number of even numbers between 3 to 39, all odd numbers are removed.
⇒ 4, 6, 8,10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38
So, the numbers remain between 3 to 39 after removing odd numbers is 18.
Hence, "option 3" is the correct answer.

93. Select the option that is related to the third in the same way as the second term is related to the first term.
Apple : Fruit :: Bottle Gourd : ?
a. Snack
b. Vegetable
c. Food
d. Fruit

Ans. b
Explanation:
The logic followed here is:
Apple is the fruit.
Similarly,
Bottle Gourd is a vegetable.
Hence, "option 2" is the correct answer.

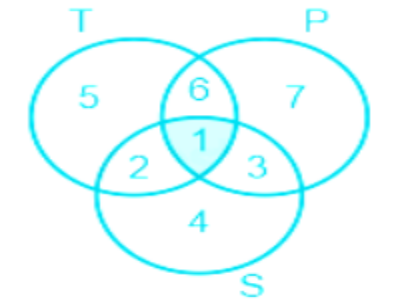
94. In the given diagram, circle T represents 'teachers', circle S represents 'students' and circle P represents 'principals'. The regions are denoted by the numbers 1 to 7. Based on the diagram answer the question given below.



Select the region that represent principals who are both, teachers and students.
a. 1

b. 3
c. 7
d. 6

Ans. a
Explanation:
The Venn diagram is given below:-



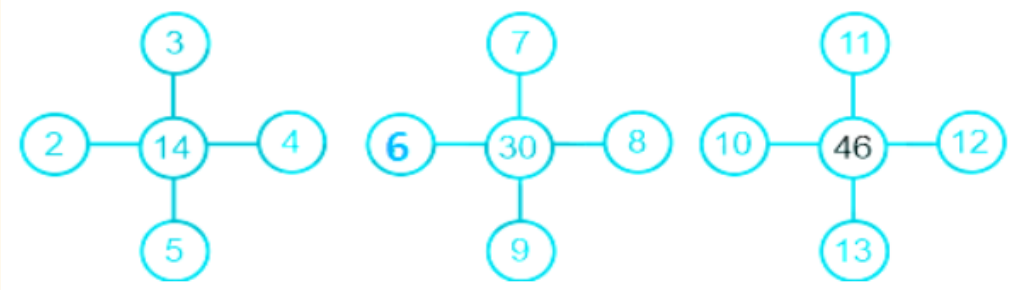
The shaded part is the principals who are both, teachers and students.
So, 1 principal who are both, teachers and students.
Hence, "option 1" is the correct answer.

95. Study the given pattern carefully and select the numbers from among the given options that can replace the question marks (?).

a. 26
b. 46
c. 62
d. 64

Ans. b
Explanation:
The logic followed here is:
We add all four to the outer number we get the centre number.

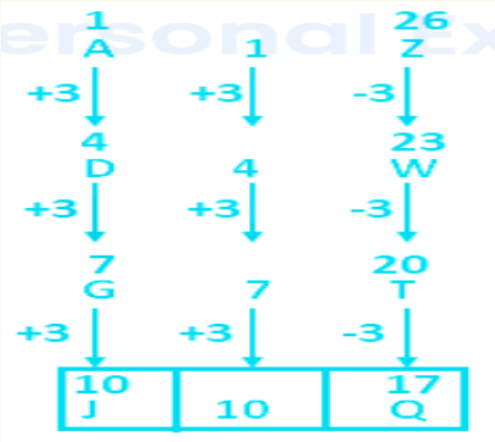
From figure A2 + 3 + 4 + 5 = 14
From the figure B:-
6 + 7 + 8 + 9 = 30
Similarly,
From the figure C:-
10 + 11 + 12 + 13 = 46.



Hence, "option 2" is the correct answer.

96. Select the alphanumeric-cluster from among the given options that can replace the question mark (?) in the following series.
A1Z, D4W, G7T, ?
a. Q10J
b. Q17J
c. J17S
d. J10Q

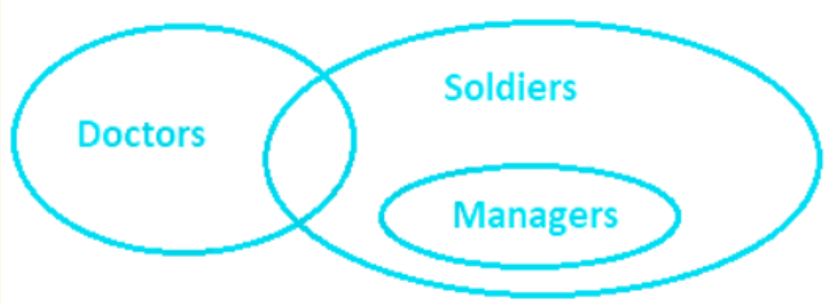
Ans. d
Explanation:
The logic followed here is:



Hence, "option 4" is the correct answer.

97. Read the given statements and conclusions carefully. Assuming that the information given in the statements is true, even if it appears to be at variance with commonly known facts, decide which of the given conclusion logically follow(s) from the statements.
Statements :
(a) Some doctors are soldiers.
(b) All managers are soldiers.
Conclusions :
(i) All doctors are soldiers.
(ii) Some soldiers are managers.
(iii) All solders are doctors.
(iv) Some doctors are managers.
a. Only conclusions (ii) and (iv) follow.
b. Only conclusion (ii) follows.
c. Only conclusion (i) follows.
d. Only conclusions (iii) and (iv) follows.

Ans. b
Explanation:
The Venn diagram are given below:-

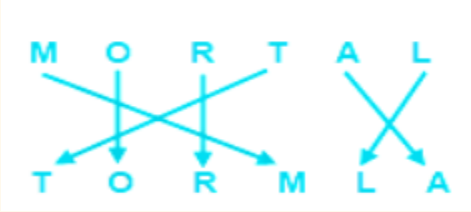


Conclusions :
(i) All doctors are soldiers → False (Given the statement is some doctors are soldiers then all doctors are soldiers is possible not definitely.)
(ii) Some soldiers are managers →True (Given the statement is all managers are soldiers, so we can also say that some soldiers are managers.)
(iii) All soldiers are doctors → False (Given the statement is some doctors are

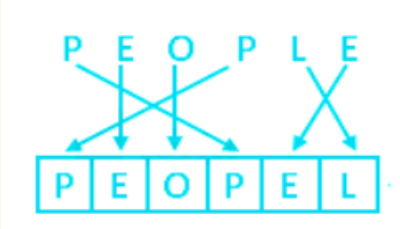
soldiers then it never be all soldiers are doctors.)
(iv) Some doctors are managers → False (Given the statements are some doctors are soldiers, all managers are soldiers, that means we can not say that some doctors are managers.)
Hence, "option 2" is the correct answer.

98. In a certain code, if MORTAL is rearranged as TORMLA, how would PEOPLE be rearranged in the same code?
a. PEOPEL
b. PPOELE
c. PEOLEP
d. PEPOEL

Ans. a
Explanation:
The logic followed here is:



Similarly,

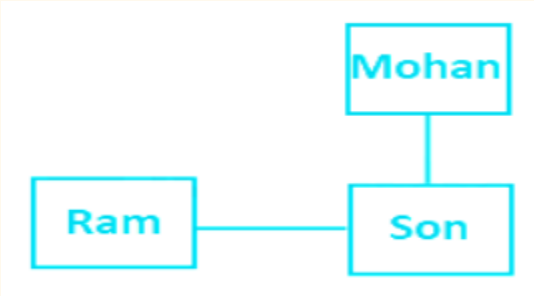


Hence, "option 1" is the correct answer.

99. If Ram is the brother of the son of Mohan, then how is Ram related to Mohan?
a. Grandson
b. Son

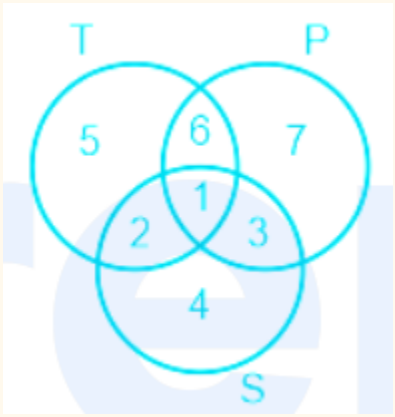
c. Brother
d. Father

Ans. b
Explanation:
If Ram is the brother of the son of Mohan.
The family tree is given below:-



Ram is the son of Mohan.
Hence, "option 2" is the correct answer

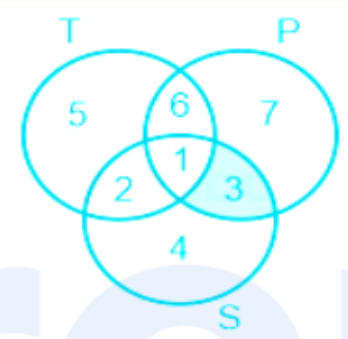
100. In the given diagram, circle T represents 'teachers', circle S represents 'students' and circle P represents 'principals'. The regions are denoted by the numbers 1 to 7. Based on the diagram answer the question given below.



Select the region that represents principles who are students but not teachers.
a. 3
b. 6

c. 2
d. 1

Ans. a
Explanation:
The Venn diagram is given below:-



The shaded part is the principles who are students but not teachers.
So, 3 principals who are students but not teachers.
Hence, "option 1" is the correct answer.