RRB NTPC Exam 20 Jan, 2021 Shift 2 Solution

---

1. The HCF of 24 and 144 is '10p + 4', then the value of 'p' is:
a. 2
b. 4
c. 1
d. 3

Ans. a
Explanation:
Given:
Given numbers are 24, 144. Concept used:
If P is the HCF of A and B then A = P × m
B = P × n
Answers
(Where m, and n are arbitrary positive integers and they are co-prime to each other)
Calculation:
24 = 24 × 1
144 = 24 × 6
HCF (24, 144) = 24
According to the question,
10p + 4 = 24
⇒ p = 2
∴ The value of p is 2.

2. Five friends, G, H, I, J and K, are standing in a row (not necessarily in the same order).
1. The person in the middle is between J and I.
2. G is at the left end.
3. K is the neighbour of both J and I. Who is standing at the right end?
a. H
b. I
c. K
d. J

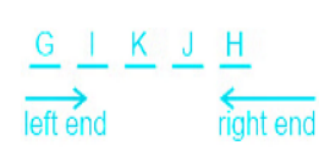
Ans. a
Explanation:
Five friend: G, H, I, J and K, are standing in a row
1) G is at the left end.

2) The person in the middle is between J and I.
Case (i) :

Case (ii) :

3) K is the neighbour of both J and I.
Case (i) :

Case (ii) :



∴ Here, from both the cases 'H' is standing at right end.
Hence, the correct answer is "H".

3. x% of y is y% of:
a. 100x
b. x
c.x/10
d.y/10
Ans. b

Explanation:
Concept used:
A% of B is equal to B% of A.
Calculation:
Hence, x% of y must be equal to y% of x.
∴ x% ofy is y% of x.

4. The ratio of the area of a circle and that of an equilateral triangle, where the diameter of the circle is equal to the sides of the equilateral triangle, is:
a. $\sqrt{3}$**: π**
b. π : 1
c. π : $\sqrt{3}$
d. π : $\sqrt{2}$

Ans. c
Explanation:
Given:
The diameter of the circle is equal to the sides of the equilateral triangle Concept used:
Area of an equilateral triangle = √3/4 × $(Side)^2$
Area of a circle = π × $Radius^2$
Diameter = Radius × 2
Calculation:
Let the diameter of the circle be 2R unit.
Hence, the measure of the side of the equilateral triangle = 2R units
Thus,
The ratio of the area of a circle and that of an equilateral triangle
⇒ π × $(2R ÷ 2)^2$: √3/4 × $(2R)^2$
⇒ π : √3
∴ The ratio of the area of a circle and that of an equilateral triangle is π : √3.

5. Which Mughal monument was designed by Ustad Ahmad Lahori and declared a UNESCO World Heritage site in 1983?
a. Taj Mahal
b. Red Fort
c. Humayun's Tomb
d. Agra Fort

Ans. a

Explanation:
The correct answer is Taj Mahal.
Taj Mahal is considered a fine example of Mughal architecture (a mixture of Indian, Persian and Islamic styles).
The Taj Mahal is also one of the most iconic monuments in the world, which is visited by millions of tourists every year.
The complex was designated a UNESCO World Heritage Site in 1983.

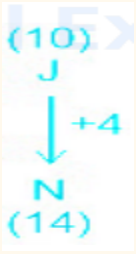
6. A can finish a piece of work in 20 days and B can finish it in 24 days. They work together for 10 days then A leaves. In how many days will B finish the remaining work?
a. 2 days
b. Half day
c. 1 day
d. 3 days

Ans. a
Explanation: Given:
A can finish a piece of work in 20 days and B can finish it in 24 days.
They work together for 10 days then A leaves.
Concept used:
Total work = Efficiency (Work done per hour) × Total time taken
Calculation:
LCM (20, 24) = 120
Let the total work be the LCM of the time taken by A and B.
Hence,
A does each day = 120 ÷ 20 = 6 units
B does each day = 120 ÷ 24 = 5 units
Remaining work after 10 days = 120 - (5 + 6) × 10 = 10 units
B will complete the rest of the work in = 10 ÷ 5 = 2 days
∴ B will finish the remaining work in 2 days.

7. If J is coded as N, R is coded as V and X is coded as B, then how will you code JOY?
a. NOB
b. NSA
c. NSC
d. NRA

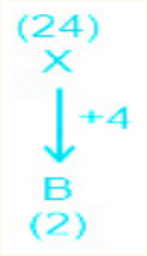
Ans. c
Explanation:
The logic followed here is :-

J is coded as N.

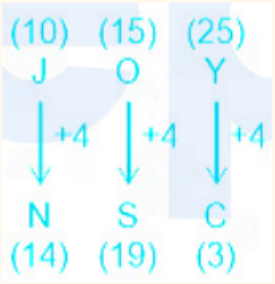


R is coded as V.

X is coded as B.



Similarly, JOY is coded as :



Hence. The correct answer is "NSC".

8. Which Indian state has declared Mallakhamb as its state sport?

a. Haryana

b. Uttar Pradesh

c. Uttarakhand

d. Madhya Pradesh

Ans. d
Explanation:
The correct answer is Madhya Pradesh.
In 2013 Madhya Pradesh Government declared 'Mallakhamb' as the state sport and also launched 'Mission Olympics 2020' for imparting coaching to the budding talents.

9. A tank has two inlets A and B that can fill it in 5 h and 6 h respectively. An outlet C can empty the full tank in 30 h. If all the three pipes are opened together in the empty tank, how much time will the pipes take to fill the tank?
a. 3 h
b. 2 h
c. 5 h
d. 4 h

Ans. a
Explanation:
Given:
A tank has two inlets A and B that can fill it in 5 h and 6 h respectively.
An outlet C can empty the full tank in 30 h.
Concept used:
Total work = Efficiency (Work done per hour) × Total time taken
Calculation:
LCM (5, 6, 30) = 30
Let the capacity of the tank be the LCM of the time taken by all pipes.
Hence, the capacity of the tank = 30 units
Thus,
Inlet A fills the tank each hour by = 30 ÷ 5 = 6 units
Inlet B fills the tank each hour by = 30 ÷ 6 = 5 units
Outlet C empties the tank each hour by = 30 ÷ 30 = 1 unit 30
Hence, time taken to fill the tank when all pipes are opened = = 3 hours (6 + 5 − 1)
∴ A ll the three pipes are opened together in the empty tank, 3 hours will the pipes take to fill the tank.

10. Name the creation of Devaki Nandan Khatri which is considered to be the first authentic work of prose in Hindi.
a. Gita Govinda
b. Chandrakanta

c. Gitanjali
d. Ratnavali

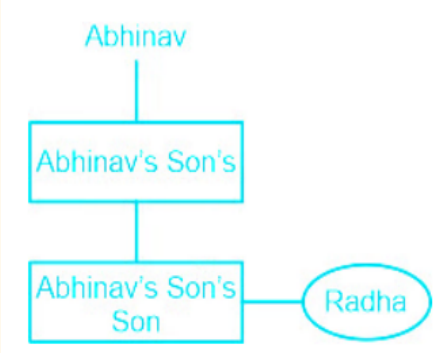
Ans. b
Explanation:
The correct answer is Chandrakanta.
Chandrakanta Santati Babu is a Hindi novel written by Devaki Nandan Khatri. It is considered to be the first work of prose in the Hindi language.

11. Which among the following is NOT an extension for a video file?
a. .jpeg
b. .mp4
c. .mov
d. .avi

Ans. a
Explanation:
The correct answer is .jpeg.
Key Points
JPEG stands for Joint Photographic Experts Group (JPEG)
It is a standardized image compression mechanism designed for compressing either full-color three-band (RGB) or gray-scale one-band images. JPEG stands for Joint Photographic Experts Group (JPEG)
It is a standardized image compression mechanism designed for compressing either full-color three-band (RGB) or gray-scale one-band images.

12. Radha is the sister of the son of Abhinav's son. How is Radha related to Abhinav?
a. Grandmother
b. Sister
c. Aunt
d. Granddaughter

Ans. d
Explanation:
Radha is the sister of the son of Abhinav's son.
Family Tree :



∴ Here, Radha is 'Grand daughter' of Abhinav.
Hence, the correct answer is "Grand daughter".
13. Answer: d
Explanation:
Given:
14, 14, 15, 17, 16, 17, 17, 22, 13
Concept used:
The median is the middle value in a list ordered from smallest to largest. Calculation:
Given series in the ascending order,
13, 14, 14, 15, 16, 17, 17, 17, 22
Hence, the median = 16
∴ The median of the given series is 16.

13. Median of 14, 14, 15, 17, 16, 17, 17, 22, 13 is:
a. 14
b. 15
c. 17
d. 16

Ans. d
Explanation:
Given:
14, 14, 15, 17, 16, 17, 17, 22, 13
Concept used:
The median is the middle value in a list ordered from smallest to largest. Calculation:
Given series in the ascending order,
13, 14, 14, 15, 16, 17, 17, 17, 22
Hence, the median = 16
∴ The median of the given series is 16.

14. $\sqrt{2}$ **-** $\sqrt{3}$**is :**
a. a natural number
b. a whole number
c. an irrational number
d. a rational number

Ans. Given
$\sqrt{2}$ **-** $\sqrt{3}$
Concept used:
An irrational number is any real number that cannot be expressed as the quotient of two integers.
Calculation:
√2 and √3 are two irrational numbers.
Hence, their difference must be an irrational number.
Thus, √2 − √3 is an irrational number.
∴ √2 − √3is an irrational number.

15. If sin 3 θ = cos (θ – 6°), then θ is:
a. 26 °
b. 12 °
c. 3 °
d. 24 °

Ans. d
Explanation:
Given:
sin 3θ = cos (θ – 6°)
Concept used:
Cos (90° - α) = Sinα
Calculation:
sin 3θ = cos (θ – 6°)
⇒ Cos (90° - 3θ) = cos (θ – 6°)
⇒ 4θ = 96°
⇒ θ = 24°
∴ The value of θ is 24°.

16. What is the scale for measuring a hydrogen ion concentration in a solution?
a. OH scale
b. dB scale
c. Hydrogen scale
d. pH scale

Ans. d
Explanation:
The correct answer is pH scale.
Key Points
pH means the potential of Hydrogen.
The strength of acids and bases depends on the number of H^+ ions and OH^- ions produced, respectively.
The pH scale is the scale used to express the acidity or alkalinity of a substance based on the concentration of hydrogen ions in its solution.
pH scale was discovered by Soren Sorensen.
The range of pH scales is 0 to 14.
If pH < 7 then the solution is acidic.
If pH > 7 then the solution is basic.
If pH = 7 then the solution is neutral.
Additional Information
The human body works within the pH range of 7.0 to 7.8.
When the pH of rainwater is less than 5.6, it is called acid rain.
Tooth decay starts when the pH of the mouth is lower than 5.5.

17. A number exceeds 25% of itself by 60. the number is:
a. 65
b. 80
c. 45
d. 75

Ans. b
Explanation:
Given:
The number exceeds 25% of itself by 60.
Concept used:
Application of Percentage

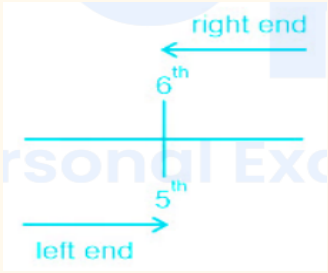
Calculation:
Let the number be Q
According to the question,
Q = 60 + Q × 25%
⇒ 3Q/4 = 60
⇒ Q = 80
∴ The number is 80.

18. "The Nice Guy Who Finished First" is the biography of which famous sportsperson?
a. Rahul Dravid
b. David Beckham
c. Michael Phelps
d. Tiger Woods

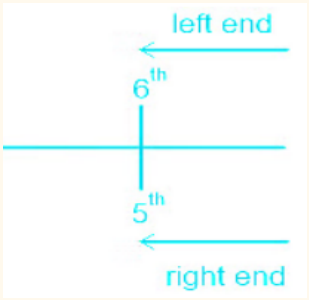
Ans. a
Explanation:
The correct answer is Rahul Dravid.
"The Nice Guy Who Finished First" is a biography of Rahul Dravid.

19. In a row of girls, Rajeshwari is fifth from one extreme and sixth from the other. Find the total number of girls in the row
a. 11
b. 12
c. 10
d. 9

Ans. c
Explanation:
The followed here is :-
Case (i) :



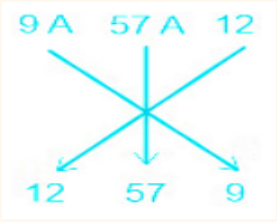
Position of Rajeshwari from left side of the row = 5th
Position of Rajeshwari from right side of the row = 6th
Total number of girls in the row = Left side position + Right side position - 1
Total number of girls in the row = 5 + 6 - 1
Total number of girls in the row = 11 - 1
Total number of girls in the row = 10.
Case (ii) :



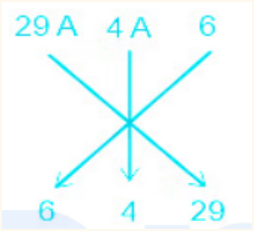
Position of Rajeshwari from left side of the row = 6 th
Position of Rajeshwari from ight side of the row = 5 th
Total number of girls in the row = Left side position + Right side position - 1
Total number of girls in the row = 6 + 5 - 1
Total number of girls in the row = 11 - 1
Total number of girls in the row = 10.
Hence, the correct answer is "10".

20. If 23 A 64 A 13 = 136423 and 9 A 57 A 12 = 12579, then 29 A 4 A 6 = ?
a. 6429
b. 6249
c. 6492
d. 6924
Ans. a
Explanation:
The logic followed here is :-
23 A 64 A 13 = 136423

and,
9 A 57 A 12 = 12579



Similarly,
29 A 4 A 6 = ?



Hence, the correct answer is "6429".

21. A 600 m long train is running at the speed of 72 km/h. How much time will it take to cross a 200 m long bridge?
a. 30 s
b. 10 s
c. 40 s
d. 20 s

Ans. c
Explanation:
Given:
Length of the train = 200m
Length of the platform = 600m
Speed = 72kmph
Concept used:
Kilometer per hour (kmph) = 3.6 × Meter per second (mps)
While a train crosses a bridge, it crosses the sum of its length and the length of the bridge.
Calculation:
72 kmph = 72 ÷ 3.6 = 20 mps
Hence, time taken to cross the bridge = (600 + 200)/20 = 40 seconds
∴ It will taken 40s to cross a 200m long bridge.

22. Which of the following river's section was declared as National Waterway-2 in 1988?
a. Brahmaputra
b. Narmada
c. Krishna
d. Ganga

Ans. a
Explanation:
The correct answer is Brahmaputra.
The Brahmaputra river with a length of 891 km between the Bangladesh border and Sadiya was declared as National Waterway No. 2 (NW-2) on 1 September 1988.

23. In April, the profit of a bookstore increased by 25%, and in May, it decreased by 20%. How did the profit of the store at the end of May compare to that in the beginning of April?
a. It was the same.
b. It was 5% greater.
c. It was 25% greater.
d. It was less.

Ans. a
Explanation:
Given:
In April, the profit of a bookstore is increased by 25%, and in May, it is decreased by 20%
Concept used:
Incremented/Reduced value = Initial value (1 ± change%)
Calculation:
Let the initial profit at beginning of April be 100Q
In April, the profit = 100Q × 1.25 = 125Q
In May, the profit = 125Q × 0.8 = 100Q
Hence, the profit remains the same at the end of May compared to that at the beginning of April.
∴ The profit remains the same at the end of May compared to that at the beginning of April.

24. What is another name for calcium oxide?
a. Lime soda
b. Quick lime
c. Cement
d. Baking soda

Ans. b
Explanation:
The correct answer is Quick lime.
Key Points
Quick lime is another name for calcium oxide.
Calcium oxide, commonly known as lime, is a chemical compound with the formula CaO.
It is believed that quicklime is one of the oldest chemicals known to the human race.

25. If an article is sold at a gain of 5% instead of being sold at a loss of 5%, a man gets Rs. 5 more. What is the cost price of the article?
a. Rs. 60
b. Rs. 80
c. Rs. 50
d. Rs. 40

Ans. c
Explanation:
Given:
If an article is sold at a gain of 5% instead of being sold at a loss of 5%, a man gets Rs. 5 more.
Concept used:
Selling Price = Cost Price × (1 + Gain%)
Selling Price = Cost Price × (1 - Loss%)
Calculation:
Let the cost price of the article be Rs. Q.
According to the question,
Q × (1 + 5%) - Q × (1 - 5%) = 5
⇒ Q × 0.1 = 5
⇒ Q = 50
∴ The cost price of the article is Rs. 50.

26. Name the German chemist who grouped elements into triads in 1817.
a. Dmitri Ivanovich Mendeleev
b. John Newlands
c. Henry Moseley
d. Johann Wolfgang Dobereiner

Ans. d
Explanation:
The correct answer is Johann Wolfgang Dobereiner.
In 1817, German chemist Johann Wolfgang Dobereiner arranged elements with similar properties into a group.
The Dobereiner triad is based on a group of three elements.
He was the first to start grouping the elements on the basis of atomic mass.
The three elements of the triad were arranged in such a way that the the atomic mass of the middle element was approximately the average of the atomic masses of the other two elements.

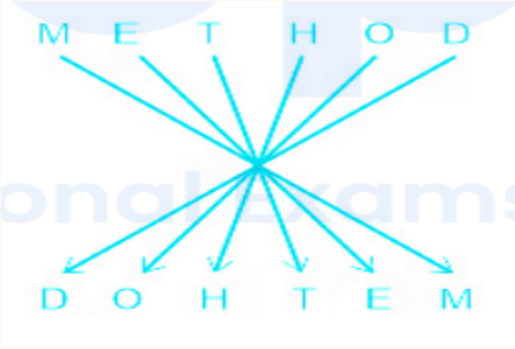
27. Which place in India was known as “kala pani'?
a. Gulf of Kutch
b. Lakshadweep
c. Kerala's backwaters
d. Andaman Islands

Ans. d
Explanation:
The correct answer is Andaman Islands.
Important Points
The cellular jail built by Britishers in the Andaman and Nicobar Islands is known as Kala Pani.
The construction of the Cellular Jail started in 1893 and was completed in 1905- 06.

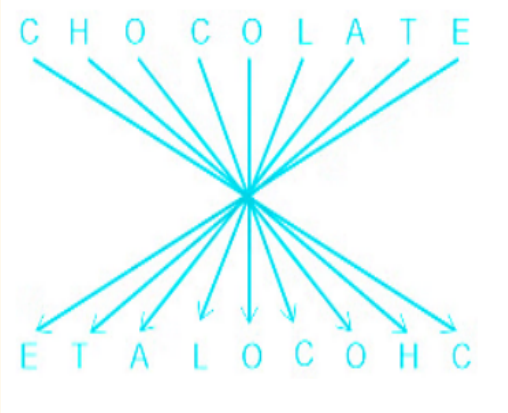
28. In a certain code, METHOD is written as DOHTEM. How will CHOCOLATE be written as in that code?
a. TELAOCOCH
b. ETALOCOHC

c. ETALCOHOC
d. ETLAOCOCH

Ans. b
Explanation:
The logic followed here is :-
METHOD is written as DOHTEM.



Similarly,
CHOCOLATE will be written as :



Hence, the correct answer is "ETALOCOHC".

29. Name the drainage pattern where the river originates from a hill and flows in all directions.
a. Radial
b. Centripetal
c. Dendritic
d. Trellis

Ans. a

Explanation:
The correct answer is Radial.
Key Points
When the rivers originate from a hill and flow in all directions, the drainage pattern is known as ‘radial’.
Volcanoes usually display excellent radial drainage.
The rivers originating from the Amarkantak range present a good example of it.

30. Who along with Motilal Nehru formed the Swaraj Party within the Congress to argue for a return to council politics?
a. Subhas Chandra Bose
b. CR Das
c. Jawaharlal Nehru
d. BR Ambedkar

Ans. b
Explanation: The correct answer is CR Das.
The Swaraj Party was formed on 1 January 1923. Chittaranjan Das, Narasimha Chintaman Kelkar and Motilal Nehru formed the Congress-Khilafat Swarajya Party with Das as the president and Nehru as one of the secretaries. The Swaraj Party was established as the Congress-Khilafat Swaraj Party. It was a political party formed in India on 1 January 1923 after the Gaya annual conference in December 1922 of the National Congress, that sought greater self-government and political freedom for the Indian people from the British Raj.

31. 20 years ago, the average age of a husband and his wife was 23 years. Now, the average age of the family consisting of the husband, wife and their son is 34 years. The present age of the son is:
a. 24 years
b. 42 years
c. 16 years
d. 34 years

Ans. c
Explanation:
Let us consider,
Present age of husband = x.

Present age of wife = y.
Present age of son = z.
Given :
20 years ago, the average age of a husband and his wife was 23 years. Age of husband 20 years ago = x - 20.
Age of wife 20 years ago = y - 20.
average age of a husband and his wife was 23 years.
⇒ (x - 20 + y - 20) / 2 = 23
⇒ (x - 20 + y - 20) = 46
⇒ x + y - 40 = 46
⇒ x + y = 86 ..... (i)
average age of the family consisting of the husband, wife and their son is 34 years. ⇒ (x + y + z) / 3 = 34
⇒ x + y + z = 102 ..... (ii)
Substitute equation (i) in equation (ii) we get,
⇒ 86 + z = 102
⇒ z = 102 - 86
⇒ z = 16
∴ Here, the present age of son is 16 years.
Hence, the correct answer is "16 years".

32. Which of the following is NOT a part of the National Social Assistance Programme?
a. Indira Gandhi National Widow Pension Scheme
b. Indira Gandhi National Disability Pension Scheme
c. Annapurna
d. AYUSH

Ans. d
Explanation:
The correct answer is AYUSH.
The Ministry of AYUSH, a ministry of the Government of India, is responsible for the development of education, research and dissemination of indigenous and alternative systems of medicine in India.

33. When was the first Indian Cricket Club-the Calcutta Cricket Club established?
a. 1791
b. 1790
c. 1793
d. 1792

Ans. d
Explanation: The correct answer is 1792. The establishment of the Calcutta Cricket Club (what we know today as CC & FC) in 1792 , was another watershed for the sport in the land. It is the second-oldest cricket club in the world, after the MCC (1787).

34. At which university did Mahatma Gandhi make his first public appearance in 1916 after returning from South Africa to India?
a. Aligarh Muslim University
b. Allahabad University
c. Banaras Hindu University
d. University of Mumbai

Ans. At Banaras Hindu University Mahatma Gandhi make his first public appearance in 1916 after returning from South Africa to India.

35. Which of the following is a property of an ionic compound?
a. It conducts electricity in the solid state
b. It is hard and does not break easily.
c. It has a high melting point and boiling point.
d. It is soluble in solvents such as kerosene and petrol.

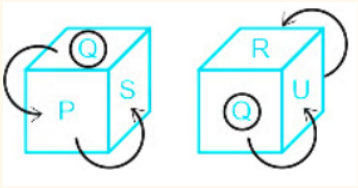
Ans. c
Explanation: The correct answer isIt has a high melting point and boiling point. Properties of ionic compounds: Due to the strong attractive force between the positive and negative ions, ionic compounds are solids that are rather rigid. These compounds are often brittle and break into fragments when pressure is applied. The melting and boiling points of ionic compounds are extremely high. This is due to the significant amount of energy necessary to break the strong inter-ionic affinity.

36. The radius of a semicircular compound is 35 m. What will be its circumference?
a. 180 m
b. 90 m
c. 45 m
d. 135 m

Ans. a
Explanation:
Given:
The radius of a semicircular compound is 35 m.
Concept used:
The circumference of the semicircle = π × Radius + 2 × Radius
Calculation:
The circumference of the semicircular compound
⇒ π × 35 + 35 × 2
⇒ 180m
∴ Its circumference is 180m

37. Three different positions of the same dice are shown. Select the letter that will be on the face opposite to the one having U?
a. R
b. S
c. T
d. P

Ans. d
Explanation:
Opposite surface of the open dice can be found by the below method:-
Alternate surfaces are opposite to each other.
No two opposite surface are touched by side or by corners
From the positions 1, 2, 3 of Dice the opposite faces identified as :



Alphabets	Opposite side
P	U
S	R
Q	Not shown (T)

∴ Here, the opposite letter of U is 'P'.
Hence, the correct answer is "P".

38. From where did India's Polar Satellite Launch Vehicle (PSLV-C45) successfully launch EMISAT and 28 international customer satellites on 1st April 2019?
a. UR Rao Satellite Centre
b. Spaceport in French Guiana
c. Centre Spatial Guyanais, Kourou
d. Satish Dhawan Space Centre

Ans. d
Explanation: The correct answer is Satish Dhawan Space Centre.
The PSLV-C45 was launched from the second launch pad of the Satish Dhawan Space Centre in Sriharikota, Andhra Pradesh, India.

39. Who among the following Nobel Prize winners is the founder of a grassroots movement to combat deforestation?
a. May-Britt Moser
b. Wangari Mathai
c. Linda Buck
d. Francoise Barre

Ans. b
Explanation: The correct answer is Wangari Mathai.
Wangari Maathai was the founder of the Green Belt Movement and the 2004 Nobel Peace Prize Laureate.

40. What will be the compound interest on Rs. 25,000 at the rate of 6% per annum in 2 years?
a. Rs. 3,090
b. Rs. 1,560
c. Rs. 1,950
d. Rs. 2,560
Ans. a
Explanation:
Given:
Principal amount = Rs. 25000
Rate of interest = 6%
Time = 2 years
Concept used:
Compound interest, CI = $P(1 + R/100)^n - P$
where
P = Principal amount
R = Rate of interest per year
N = Time in years
Calculation:
The compound interest incurred
⇒ $25000 (1 + 6/100)^2 - 25000$
⇒ 28090 - 25000
⇒ 3090
∴ The compound interest on Rs. 25,000 at the rate of 6% per annum in 2 years will be 3090.

41. In which of the following states in India the 'rat hole mining' is still practiced?
a. Meghalaya
b. Gujarat
c. Maharashtra
d. Jharkhand

Ans. a
Explanation:
The correct answer is Meghalaya.
Rat Hole mining is majorly only practiced in Meghalaya.
Rathole mining involves digging very small tunnels, usually only 3-4 feet high, which workers (often children) enter and extract coal.

42. A ratio of the cost price and the selling price of an article is 4 : 5. What is the percentage gain or loss?
a. 20% loss
b. 25% gain
c. 25% loss
d. 20% gain

Ans. b
Explanation:
Given:
The ratio of the cost price and the selling price of an article is 4 : 5.
Concept used:
Gain percentage = $\frac{(Selling\ Price - Cost\ Price)}{Cost\ price}$ ×100%
Calculation:
Let the common ratio be Q.
Hence,
the selling price of the article = 5Q
the cost price of the article = 4Q
$\frac{(5Q - 4Q)}{4Q}$ ×100%
Thus, Gain% = = 25%
∴ The percentage gain is 25%.

43. Where is the office of the United Nations Environment Programme (UNEP) located in India?
a. Bangalore
b. New Delhi
c. Mumbai
d. Chennai

Ans. b

Explanation:
The correct answer is New Delhi.
The United Nations Environment Programme office in India is located in New Delhi.

44. Four fractions have been given, out of which three are alike in some manner and one is different. Select the one that is different from the rest

a. $\frac{65}{16}$

b. $\frac{62}{15}$

c. $\frac{37}{9}$

d. $\frac{49}{12}$

Ans. b
Explanation:
The logic followed here is :-
1) $\frac{65}{16}$ → Here Quotient = 4 and Remainder = 1
2) $\frac{62}{15}$ → Here Quotient = 4 and Remainder = 2
3) $\frac{37}{9}$ → Here Quotient = 4 and Remainder = 1
4) $\frac{49}{12}$ → Here Quotient = 4 and Remainder = 1
∴ Here, is different from other three alternatives.
Hence, the correct answer is "$\frac{62}{15}$ ".

45. A photograph of a bacteria enlarged 60000 times attains a length of 6 cm. The actual length of bacteria is:
a. 1000 cm
b. 1/100 cm
c. 1/1000 cm
d. 1/10000 cm

Ans. d
Explanation:
Given:
The photograph of a bacteria enlarged 60000 times attains a length of 6 cm. Calculation:
Let the actual length of the bacteria be Q cm.

According to the question,
Q × 60000 = 6
⇒ Q = $\frac{1}{10000}$
∴ The actual length of bacteria $\frac{1}{10000}$.

46. Find the value of:
(0.63 ÷ 1.26) × 4 + 5 × 3
a. 18
b. 15
c. 17
d. 16

Ans. c
Explanation:
Given:
(0.63 ÷ 1.26) × 4 + 5 × 3
Concept used:
Calculation:
(0.63 ÷ 1.26) × 4 + 5 × 3
⇒ 0.5 × 4 + 5 × 3
⇒ 2 + 15
⇒ 17
∴ The simplified value is 17.

47. Name the British chemist who presented his atomic theory in 1808, on conservation of mass and law of definite proportions, which was a turning point in the study of matter.
a. Ernest Rutherford
b. Lavoisier
c. Proust
d. John Dalton

Ans. d
Explanation:
The correct answer is John Dalton.
John Dalton's atomic theory: His theory was based on the laws of chemical combination.

Dalton's atomic theory provided an explanation of the law of conservation of mass and the law of definite proportions .
In 1808 he presented his atomic theory which was a turning point in the study of matter.

48. From which Constitution has the Fundamental Rights in the Indian Constitution drawn?
a. Switzerland
b. United States
c. Britain
d. Soviet Union

Ans. b
Explanation: The correct answer is the United States.
The model for “Fundamental Rights” in India is taken from the US constitution.

49. Who among the following is NOT a Cabinet Minister?
a. Minister of Home Affairs
b. Minister of External Affairs
c. Minister of State in the Ministry of Defence
d. Minister of Law and Justice

Ans. c
Explanation: Minister of State in the Ministry of Defence is NOT correct.
The Minister of State in the Ministry of Defence is NOT a Cabinet Minister.

50. Two boxes, A and B, have the capacity of holding 85 and 68 units of an article respectively. However, these articles have to be first packed into uniformly sized smaller packets that fit into the boxes. What is the maximum number of units that should be put into each of these packets such that both boxes A and B are filled to their full capacity?
a. 85 units per packet
b. 17 units per packet
c. 68 units per packet
d. 1445 units per packet

Ans. b
Explanation:

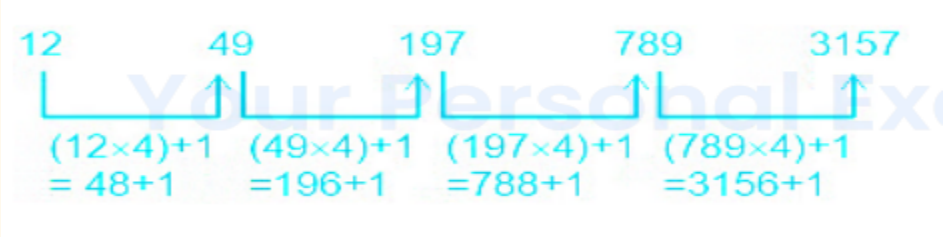
Given: Two boxes, A and B, have the capacity of holding 85 and 68 units of an article respectively.
Concept used:
HCF is the largest number or quantity that is a factor of each member of a group of numbers.
Calculation:
The maximum number of units that should be put into each of these packets such that both boxes A and B are filled to their full capacity should be the HCF the capacity of A and B.
HCF (85, 68) = 17
∴ The maximum number of units that should be put into each of these packets such that both boxes A and B are filled to their full capacity is 17 units per packet.

51. In 1930, who organized the Dalits into the Depressed Classes Association and demanded separate electorates for them?
a. Abdul Gaffar Khan
b. Jawahar Lal Nehru
c. BR Ambedkar
d. Mahatma Gandhi

Ans. In 1930 BR Ambedkar organized the Dalits into the Depressed Classes Association and demanded separate electorates for them.

52. Select the number that can replace the question mark (?) in the following series.
12, 49, 197, 789, ?
a. 1845
b. 2341
c. 3157
d. 4029

Ans. c
Explanation:
The logic followed here is :-



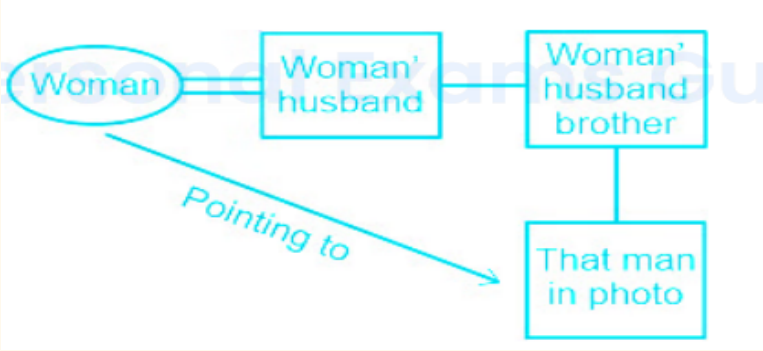
Hence, the correct answer is "3157".

53. Name the Shiva temple near Taliparamba in Kerala, where women are allowed to enter only after 8 p.m. A unique feature of this temple is the absence of a flagstaff.
a. Gokarnanatheshwara Temple
b. Rameswaram Mahadeva Temple
c. Rajarajeshwara temple
d. Mallikarjun Temple

Ans. c
Explanation: The correct answer is Rajarajeshwara temple.
Rajarajeshwara temple is near Taliparamba in Kerala, where women are allowed to enter only after 8 p.m.

54. Pointing to a photograph of a man, a woman said, “That man is the son of the only brother of my husband." How is the woman related to the man in the photograph?
a. Sister
b. Paternal Aunt
c. Maternal Aunt
d. Mother

Ans. b
Explanation:
Pointing to a photograph of a man, a woman said, “That man is the son of the only brother of my husband. "
Family Tree :



∴ Here, Woman is paternal aunt to the man in photo.

Hence, the correct answer is "Paternal Aunt".

55. Solve the following.
(√3 − √2) (√3 +√2)
× = ?
a. 1
b. 2
c. (√3 +√2)
d. 3

Ans. a
Explanation:
Concept used:
A 2 - B 2 = (A + B) (A - B)
Calculation:
(√3 − √2) (√3 +√2)
⇒ (√3)2 - (√2)2
⇒ 3 - 2
⇒ 1
∴ The simplified value is 1

56. The decimal expansion of $\frac{25}{27}$ will terminate after:
a. two decimal places
b. three decimal places
c. more than three decimal places
d. one decimal place

Ans. a
Explanation:
Calculation: $\frac{25}{27}$= 1.08 ∴ The decimal expansion of $\frac{25}{27}$ will terminate after two decimal places.

57. A dealer lists his goods at 40% above cost price and allows a discount of 20%. His profit is:
a. 40%
b. 20%

c. 12%
d. 10%

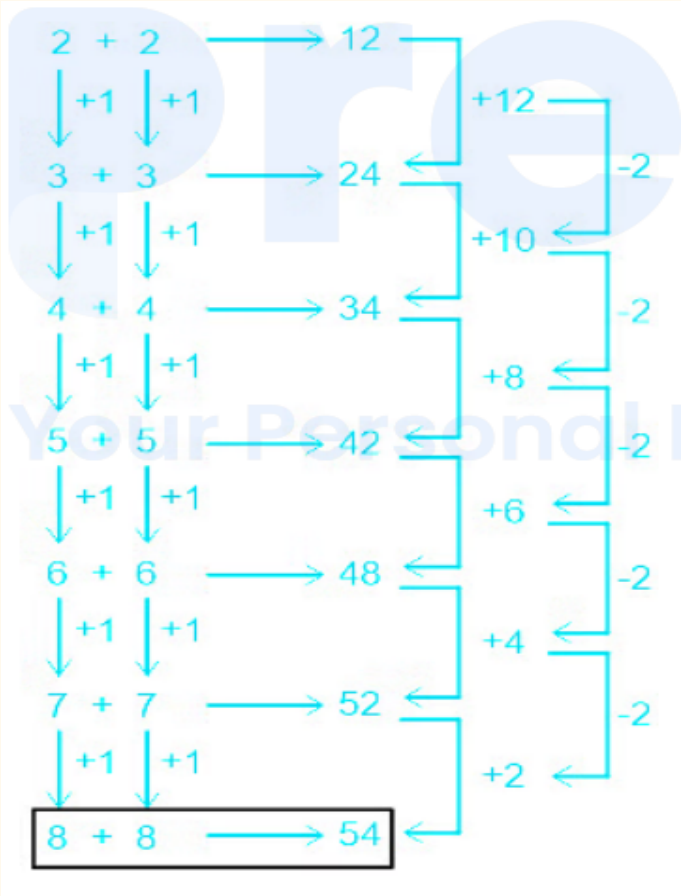
Ans. c
Explanation:
Given: A dealer lists his goods at 40% above the cost price and allows a discount of 20%.
Concept used: Successive percentage change of A% and B%, results into =(A+B+$\frac{(A\times B)}{100}$)%
Calculation: Profit percentage = 40-20-$\frac{(40\times 20)}{100}$= 12%
(Here discount is considered as a negative percentage change)
∴ His profit is 12%.

58. Name the writs under which the court orders that the arrested person should be presented before it or can order to set free an arrested person if the manner or grounds of arrest are NOT lawful or satisfactory.
a. Certiorari
b. Quo Warranto
c. Habeas corpus
d. Mandamus

Ans. c
Explanation: The correct answer is Habeas corpus.
Habeas corpus means " to produce the body" or " to have the body". This writ is issued for the enforcement of the fundamental right. It can be issued by both the supreme court and the high court.

59. If 2 + 2 = 12, 3 + 3 = 24, 4 + 4 = 34 and 5 + 5 = 42, then what will be the value of 8 + 8?
a. 56
b. 52
c. 54
d. 50

Ans. c
Explanation:
The logic followed here is :- 2 + 2 = 12, 3 + 3 = 24, 4 + 4 = 34 and 5 + 5 = 42 :



∴ Here, the value of 8 + 8 = 54.
Hence, the correct answer is "54".

60. What is the language spoken by a majority of the people in Lakshadweep?
a. Malayalam
b. Konkani
c. Marathi
d. Kannada

Ans. a
Malayalam is the language spoken by a majority of the people in Lakshadweep.

61. The first Pressurised Heavy Water Reactor (PHWR) of India in 1964 was a Collaborative venture between Atomic Energy of _____ Ltd and NPCIL of India.
a. Israel
b. France
c. USSR

d. Canada

Ans. d
The first Pressurised Heavy Water Reactor (PHWR) of India in 1964 was a Collaborative venture between Atomic Energy of Canada Ltd and NPCIL of India.

62. In February 2019, which communication satellite was launched by ISRO to help in bulk data transfer for telecommunication applications?
a. GSAT-31
b. GSAT-32
c. GSAT-30
d. GSAT-13

Ans. a
Explanation: The correct answer is GSAT-31.
In February 2019, GSAT-31 was launched by ISRO to help in bulk data transfer for telecommunication applications.

63. Rationalizing factor of $\sqrt[3]{40}$ is:

a. $2^{\frac{2}{3}}$
b. $10^{\frac{1}{3}}$
c. $40^{\frac{1}{3}}$
d. $5^{\frac{2}{3}}$

Ans. d
Explanation:
Given: $\sqrt[3]{40}$
Calculation:
$\sqrt[3]{40}$
$\sqrt[3]{2 \times 2 \times 2 \times 5}$
$2\sqrt[3]{5}$
$2\times 5^{\frac{2}{3}}$

∴ Rationalising factor of $\sqrt[3]{40}$ is $5^{\frac{2}{3}}$.

64.The value of tan 5° tan 25° tan 45 ° tan 65° tan 85° is equal to:
a. 2
b. 1
c. 4
d. 3

Ans. b
Explanation:
Given:
tan 5° tan 25° tan 45 ° tan 65° tan 85°
Concept used:
tan (90 ° - θ) = cot θ
tanθ cotθ = 1
Calculation:
tan 5° tan 25° tan 45 ° tan 65° tan 85°
⇒ tan (90° - 85°) tan (90° - 65°) tan 45° tan 65° tan 85°
⇒ cot 85° cot 65° tan 45° tan 65° tan 85°
⇒ tan 45°
⇒ 1
∴ The simplified value is 1.

65. Rahul is shorter than Raman. Ramesh is shorter than Ravi but taller than Raman. Who among them is the tallest?
a. Raman
b. Ravi
c. Ramesh
d. Rahul

Ans. b
Explanation:
The logic followed here is :-
1) Rahul is shorter than Raman.
Raman > Rahul
2) Ramesh is shorter than Ravi but taller than Raman.

Ravi > Ramesh > Raman
Thus final arrangement;
Ravi > Ramesh > Raman > Rahul.
∴ Here, 'Ravi' is tallest among them.
Hence, the correct answer is "Ravi".

66. In the expansion of $(x + 3)^3$, the coefficient of x is:
a. 9
b. 27
c. 1
d. 18

Ans. b
Explanation:
Given:
(x + 3) 3
Concept used:
(x + y) 3 = x 3 + 3. x 2 . y + 3. x. y 2 + y 3
Calculation: (x + 3) 3
⇒ x 3 + 3. x 2 . 3 + 3. x. 3^2+ 3^3
⇒ x 3 + 9x 2 + 27x + 27
∴ In the expansion of (x + 3) 3 , the coefficient of x is 27

67. In which type of forests Tendu, Amaltas, Bael (Bengal Quince) are found in India?
a. Tropical thorny forests
b. Mountain forests
c. Dry deciduous forests
d. Wet Deciduous Forests

Ans. c
Explanation: The correct answer is Dry deciduous forests.
Dry deciduous forests Tendu, Amaltas, Bael (Bengal Quince) are found in India.

68. The quadratic equation whose one root is 3 +$\sqrt{5}$, is:
a. $x^2 – 6x + 4 = 0$
b. $x^2 + 6x – 4 = 0$
c. $x^2 + 6x + 4 = 0$
d. $x^2 – 6x – 4 = 0$

Ans. a
Explanation:
Given: One root is 3 +$\sqrt{5}$
Concept used:
(A + B) 2 = A 2 + B 2 + 2AB
Calculation:
Hence, x = 3 + √5
⇒ (x - 3) 2 = 5 (Squaring both side)
⇒ x 2 - 6x + 9 = 5
⇒ x 2 - 6x + 4 = 0
∴ The quadratic equation is x 2 - 6x + 4 = 0

69. The mean of the first ten even natural numbers is:
a. 9
b. 10
c. 11
d. 8

Ans. c
Explanation:
Concept used:
Total = Mean (Average) × number of entities
Calculation:
First ten even natural numbers in the ascending order -
⇒ 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
Hence, the mean = Sum (2, 4, 6, 8, 10, 12, 14, 16, 18, 20) ÷ 10 = 11
∴ The mean of the first ten even natural numbers is 11.

70. On heating gypsum at 373 K, it loses water molecules and becomes calcium sulphate hemihydrate. This substance is used to make toys, materials for decoration and smooth surfaces. What is this substance commonly known as?
a. Plaster of Paris
b. Clay
c. Alabaster
d. Cement

Ans. a
Explanation: The correct answer is Plaster of Paris.
On heating gypsum at 373 K , it loses water molecules and becomes calcium sulphate hemihydrate.
This substance is used to make toys, materials for decoration, and smooth surfaces.
This substance is commonly known as the Plaster of Paris.

71. If Quantity A is the number of ways to assign a number from 1 to 5 without repetition to each of four people, and Quantity B is the number of ways to assign a number from 1 to 5 without repetition to each of 5 people, then which of the following are statements correct with respect to Quantities A and B?
a. Impossible to determine.
b. Quantity B is greater.
c. Quantity A is greater.
d. Both Quantities A and B are equal.

Ans.d
Explanation:
Given:
Quantity A is the number of ways to assign a number from 1 to 5 without repetition to each of four people
Quantity B is the number of ways to assign a number from 1 to 5 without repetition to each of 5 people
Concept used:
Permutation and Combination
Calculation: The number of ways to assign a number from 1 to 5 without repetition to each of four people = 5 × 4 × 3 × 2 = 120
The number of ways to assign a number from 1 to 5 without repetition to each of 5 people = 5! = 5 × 4 × 3 × 2 × 1 = 120

Hence, Quantity A = Quantity B
∴ Both Quantities A and B are equal.

72. Who was one of the founders of American computer company Sun Microsystems, later acquired by oracle?
a. Vinod Khosla
b. Satya Nadella
c. Sabeer Bhatia
d. Sunder Pichai

Ans. a
Explanation: The correct answer is Vinod Khosla.
Vinod Khosla was one of the founders of the American computer company Sun Microsystems later acquired by oracle.

73. The National TB programme (NTP) was launched by the Government of India in the year _____ in the form of District TB Centre Model involved with BCG Vaccination and TB treatment.
a. 1962
b. 1961
c. 1960
d. 1963

Ans. a
Explanation: The correct answer is 1962.
The National TB Programme (NTP) was launched by the Government of India in 1962 in the form of the District TB Centre model involved with BCG vaccination and TB treatment.

74. Which flagship programme under the Ministry of Rural Development aims to organize the rural poor women into their own institutions like self-help groups and their federations, producers' collectives etc. and also ensure their financial inclusion and livelihood support?
a. Mahatma Gandhi National Rural Employment Guarantee Programme (MGNREGA)
b. Rashtriya Krishi Vikas Yojana
c. Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM)
d. The National Social Assistance Programme (NSAP)

Ans.c
Explanation: The correct answer is Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM).
Deendayal Antyodaya Yojana – National Rural Livelihoods Mission (DAY-NRLM) under the Ministry of Rural Development aims to organize rural poor women into their own institutions like Self Help Groups and their associations, producers, collectives etc. and ensure their financial inclusion

75. The Government of India has set an ambitious target of building _____ kms of highways in FY21.
a. 5000
b. 1000
c. 15000
d. 10000

Ans. c
Explanation: The correct answer is 15000.
The government has set an ambitious target of awarding contracts for 20,000 km and building 15,000 km of highways in FY21.

76. Name the book written by Mahatma Gandhi in 1909 that suggested British rule would come to an end if Indians didn't cooperate with them.
a. Constructive Programme - Its Meaning and Place
b. Hind Swaraj
c. India of my dreams
d. Village Swaraj

Ans. b
Explanation: The correct answer is Hind Swaraj.
Hind Swaraj or Indian Home Rule is a book written by Gandhiji in 1909.

77. If x + $\frac{1}{x}$= 6, then value of x 2+$\frac{1}{x^2}$ is :

a. 38
b. 12
c. 34
d. 36

Ans. c
Explanation: Given:
$x + \frac{1}{x} = 6$
Concept used:
$x + \frac{1}{x} = 6$
$\Rightarrow (x + \frac{1}{x}) 2 = 36$ (Squaring both side)
$\Rightarrow x 2 + \frac{1}{x^2} + 2 = 36$
$\Rightarrow x 2 + \frac{1}{x^2} = 34$
$\therefore$ The value of $x 2 + \frac{1}{x^2}$ is 34

78. The HCF of the least prime number and the least composite natural number is:
a. 4
b. 3
c. 1
d. 2

Ans. d
Explanation:
Concept used:
HCF is the largest number or quantity that is a factor of each member of a group of numbers.
Calculation:
Least Prime Natural number = 2
Least Composite Natural number = 4 HCF (2, 4) = 2
$\therefore$ The HCF of the least prime number and the least composite natural number is 2.

79. Yakshagana is a folk performance of which Indian state?
a. Maharashtra
b. Assam
c. Gujarat
d. Karnataka

Ans. d
Explanation: The correct answer is Karnataka.
Yakshagana is a traditional theater form of Karnataka.

80. Which of the following pairs of numbers is co-prime?
a. 14 and 21
b. 6 and 35
c. 9 and 12
d. 39 and 65

Ans. b
Explanation:
Concept used:
Co-prime numbers are a set of numbers or integers which have only 1 as their common factor i.e. their highest common factor (HCF) will be 1.
Calculation: Option 1:
14 = 2 × 7
21 = 3 × 7
Hence, 14 and 21 aren't co-prime.
Option 2:
6 = 2 × 3
35 = 5 × 7
Hence, 6 and 35 are co-prime.
Since Option 2 suffices as the required answer, there is no need to check any further.
∴ 6 and 35 of the following pairs of numbers are co-prime.

81. Consider the given statements and decide which of the given assumptions is/are implicit in the statement.
Statement:
To expand their business, a budding company now requires more staff. Assumptions:
I: The current staff is incompetent.
II: Business can only be expanded by always hiring new staff.
a. Neither assumption I nor II is implicit.
b. Only assumption II is implicit.
c. Only assumption I is implicit.
d. Both the assumptions are implicit.

Ans. a
Explanation:
According to the given statement :-

Assumption I: This is not implicit, because nothing about staff incompetent is mentioned in the statement.
Assumption II: This is not implicit, because nothing about hiring new staff to expand business is not mentioned in the statement.
∴ Here, both the statements are not implicit so, Neither assumption I nor II is implicit.
Hence, the correct answer is "Neither assumption I nor II is implicit".

82. The Ministry of Human Resource Development has designed a one stop education portal which caters to the needs of students, starting from elementary students to research, scholars, teachers and life-long learners. What is the name of this portal?
a. PADHAI
b. DIKSHA
c. SAKSHAT
d. PRASHIKSHAK

Ans. c
Explanation: The correct answer is SAKSHAT.
The Ministry of Human Resource Development has designed an education portal which caters to the needs of students, starting from elementary students to research, scholars, teachers and lifelong learners.
SAKSHAT is the name of the portal which was launched in the year 2006.

83. Which of the following special trains can be taken to travel to Lumbini, Bodhgaya, Sarnath and Kushinagar?
a. Buddhist Circuit Tourist Train
b. Buddhist Tourist Train
c. Buddhist Train
d. Buddha Express Special Tourist Train

Ans. a
Explanation: The correct answer is Buddhist Circuit Tourist Train.
Buddhist circuit tourist train is the train recently started by the Indian Railways. It travels to Lumbini, Bodhgaya, Sarnath and Kushinagar.

84. The International Criminal Police Commission (ICPC), predecessor to INTERPOL was founded at _____ in 1923.
a. Washington

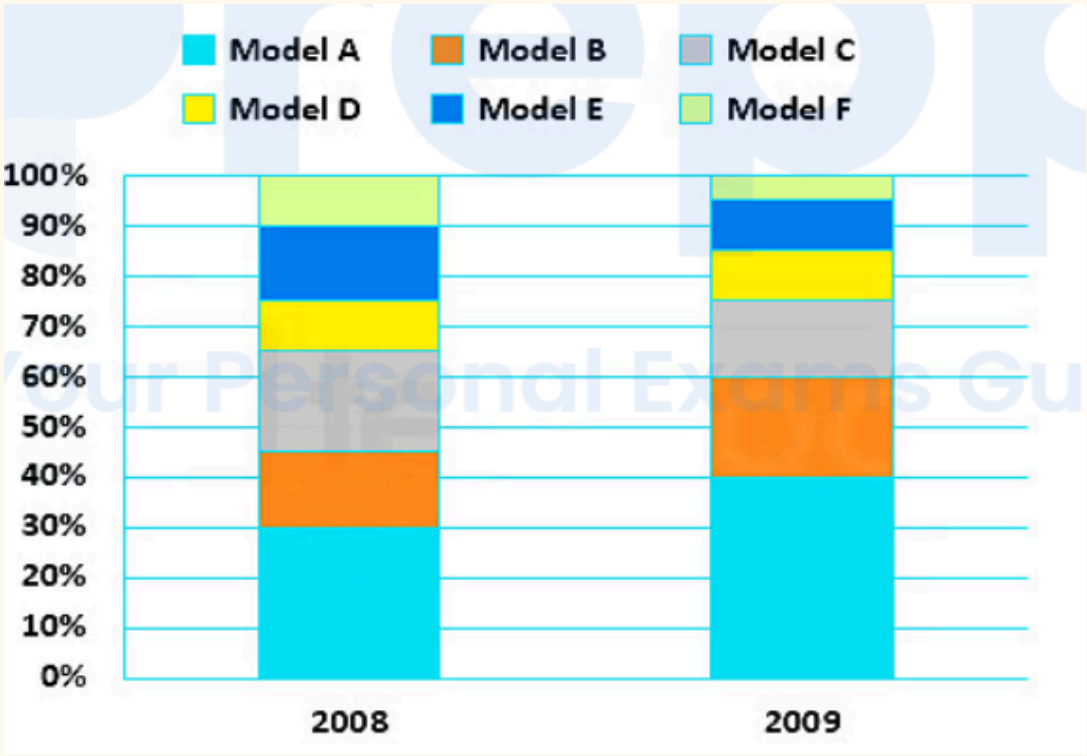
b. Vienna
c. Geneva
d. New York

Ans. b
Explanation: The correct answer isVienna.
The International Criminal Police Commission (ICPC), the predecessor to INTERPOL was founded in Vienna in 1923.

85. The mean of the first twelve prime numbers is:
a. 10.50
b. 12.00
c. 16.42
d. 20.45

Ans. c
Explanation: Concept used: Total = Mean (Average) × number of entities
Calculation:
The first twelve prime numbers are 2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37.
Hence, the mean = Sum (2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37) ÷ 12
⇒ 197/12
⇒ 16.4166 ≈ 16.42
∴ The mean of the first twelve prime numbers is 16.42.

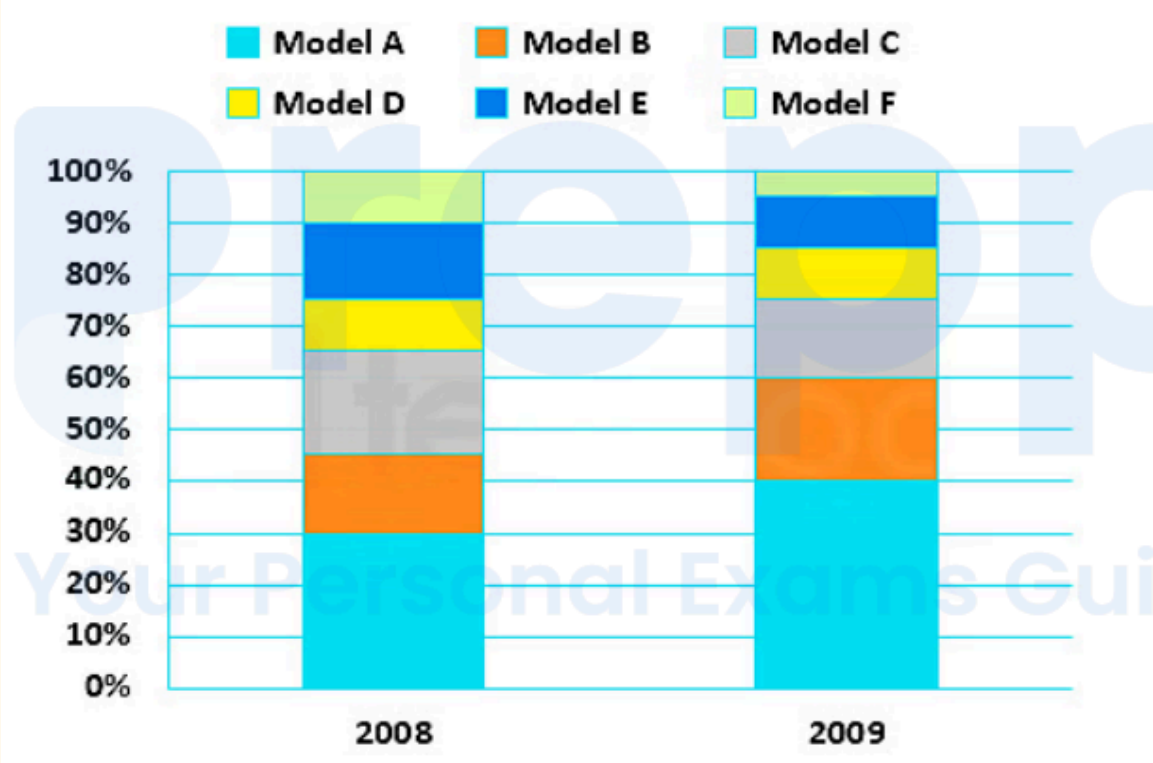
86.The given graph shows the percentage-wise distribution of different mobile phone models (A to F) produced by a mobile company in 2008 and 2009. The total number of mobile phones produced in 2008 was 4,50,000 and that in 2009 was 6,40,000.
(If a value for any model in between a range, consider it to be at midpoint, e.g any point between 10 and 20 should be considered 15.)



What is the total number of mobile phones produced of models C, D and F in 2008?
a. 1,80,000
b. 2,25,000
c. 1,35,000
d. 2,02,500

Ans. a
Explanation:
Calculation:
Share of Model C and D = 75% - 45% = 30%
Share of Model F = 100% - 90% = 10%
Total share of Mode C, D and F = 30 + 10 = 40%
Hence, total number of mobile phones produced of models C, D and F in 2008 = 450000 × 40% = 1,80,000
∴ The total number of mobile phones produced of models C, D and F in 2008 is 1,80,000.

87. The given graph shows the percentage-wise distribution of different mobile phone models (A to F) produced by a mobile company in 2008 and 2009. The total number of mobile phones produced in 2008 was 4,50,000 and that in 2009 was 6,40,000.
(If a value for any model in between a range, consider it to be at midpoint, e.g any point between 10 and 20 should be considered 15.)

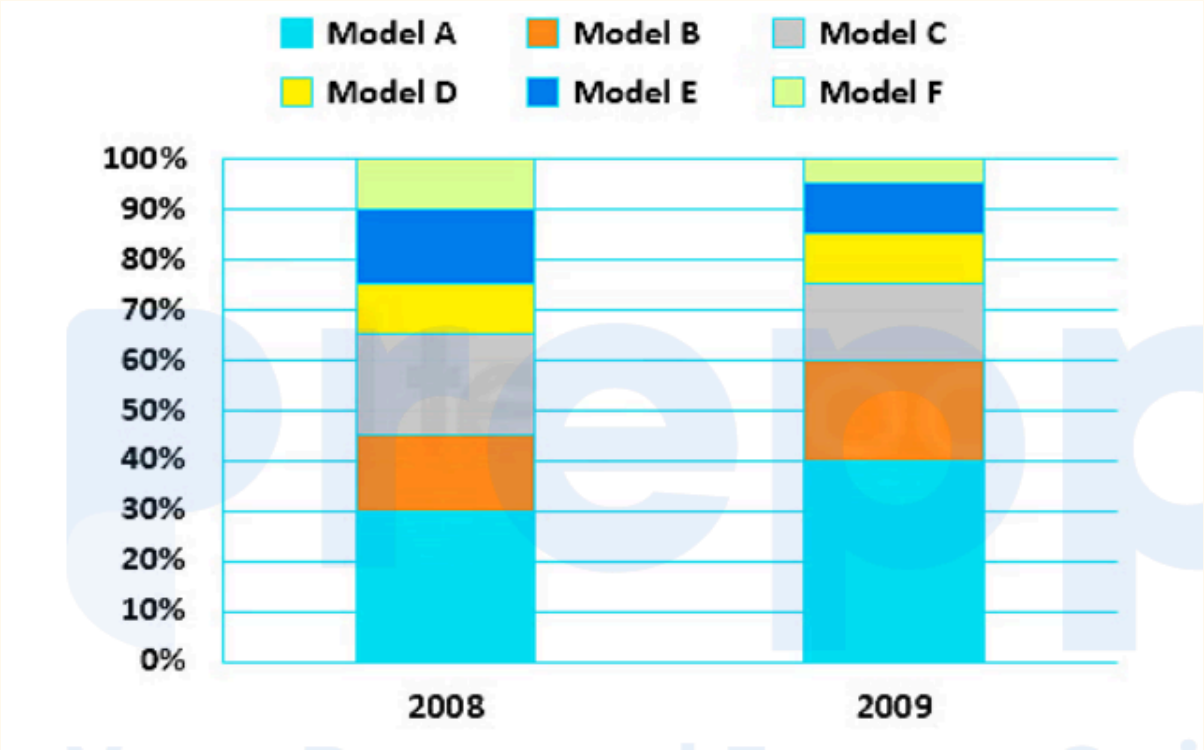


For which model was the increase/decrease in production volume between 2008 and 2009 the minimum?
a. Model E
b. Model B
c. Model C
d. Model A

Ans. a
Explanation:
Calculation:
In Model A, Difference of two years production volume = 40% × 640000 - 30% × 450000 = 121000
In Model B, Difference of two years production volume = 20% × 640000 - 15% × 450000 = 60500

In Model C, Difference of two years production volume = 15% × 640000 - 20% × 450000 = 6000
In Model D, Difference of two years production volume = 10% × 640000 - 10% × 450000 = 19000
In Model E, Difference of two years production volume = 10% × 640000 - 15% × 450000 = (-3500)
In Model F, Difference of two years production volume = 5% × 640000 - 10% × 450000 = (-13000)
∴ For Model E the increase/decrease was in production volume between 2008 and 2009 the minimum.

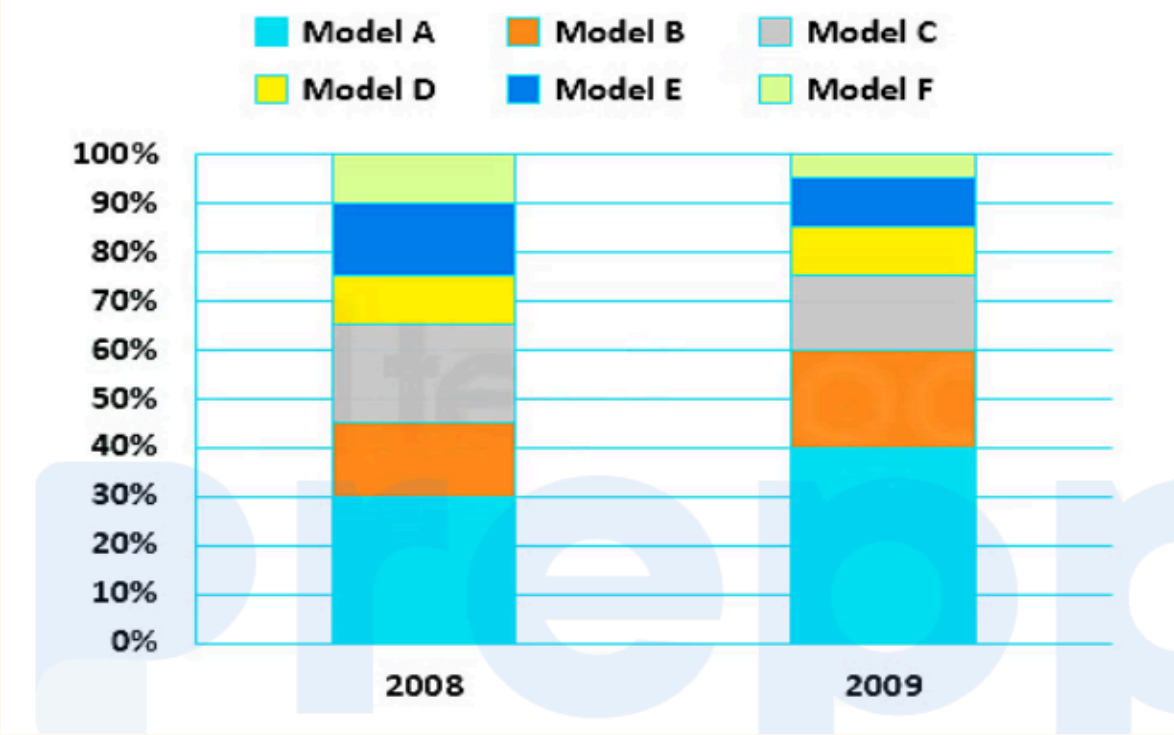
88. The given graph shows the percentage-wise distribution of different mobile phone models (A to F) produced by a mobile company in 2008 and 2009. The total number of mobile phones produced in 2008 was 4,50,000 and that in 2009 was 6,40,000.
(If a value for any model in between a range, consider it to be at midpoint, e.g any point between 10 and 20 should be considered 15.)



What is the difference between the numbers of Model B sets produced in 2008 and 2009?
a. 1,21,000
b. 22,000
c. 65,000
d. 60,500

Ans. d
Explanation:
Calculation:
Model B, Difference of two years production volume = 20% × 640000 - 15% × 450000 = 60500
∴ 60500 is the difference between the numbers of Model B sets produced in 2008 and 2009.

89. The given graph shows the percentage-wise distribution of different mobile phone models (A to F) produced by a mobile company in 2008 and 2009. The total number of mobile phones produced in 2008 was 4,50,000 and that in 2009 was 6,40,000.
(If a value for any model in between a range, consider it to be at midpoint, e.g any point between 10 and 20 should be considered 15.)



If 90% of Model C sets produced by the company were sold each year, then how many of them were remaining at the end of 2009?
a. 96,000
b. 1,67,400
c. 6,000
d. 18,600

Ans. d
Explanation:
Calculation:
Number of Model C sets remaining at the end of 2009 = (15% × 640000 + 20% × 450000) × (100 - 90)% = 18600
∴ If 90% of Model C sets produced by the company were sold each year, then 18600 of them were remaining at the end of 2009.

90. If x = –2, y = 3, Quantity A = $-x^2y^3$ and Quantity B = 0, then which of the following statements is correct with respect to Quantities A and B?
a. Quantity A is greater.
b. Quantity B is greater.
c. Impossible to determine
d. Both Quantities A and B are equal.

Ans. b
Explanation:
Given: x = –2, y = 3
Quantity A = -x2 y3 and Quantity B = 0
Calculation:
Quantity A
⇒ -x 2 y3
⇒ - (-2)2 × 3^3
⇒ (-108) < 0 Hence,
Quantity B > Quantity A
∴ Quantity B is greater.

91. Four letter-clusters have been given, out of which three are alike in some manner and one is different. Select the odd one.

a. BDG

b. JLO

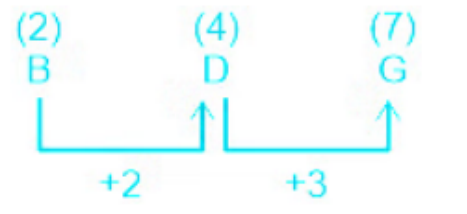
c. MOQ

d. RTW

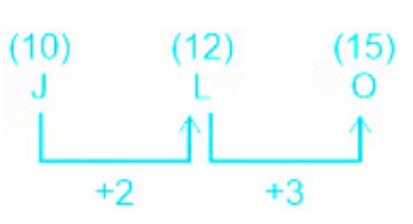
Ans. c

The logic followed here is :-

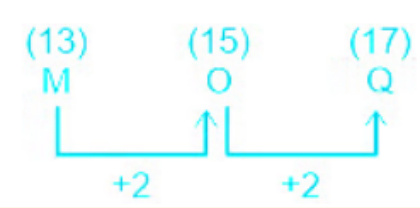
1) BDG



2) JLO



3) MOQ



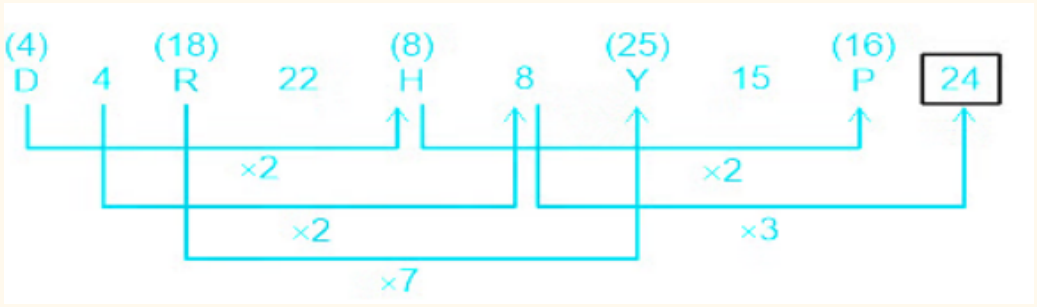
4) RTW

∴ Here, 'MOQ' is different from other three alternatives.

Hence, the correct answer is "MOQ".

92. Select the number from among the given options that can replace the question mark (?) in the following series.
D4R22H8Y15P?
a. 18
b. 24
c. 20
d. 7

Ans. b
Explanation:
The logic followed here is :-



Hence, the correct answer is "24".

93. H has three times as many cards as R has. If H gives 50 cards to R, R will have three times as many cards as H has. How many cards does H have?
a. 25
b. 100
c. 50
d. 75

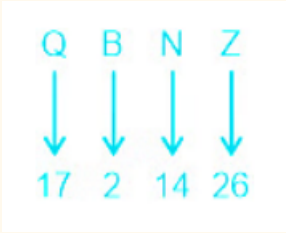
Ans.d
Explanation:
Given : H has three times as many cards as R has.
Let us consider the number of cards R have = x
Number of cards H have = 3 × as many cards as R has.
Number of cards H has = 3x
If H gives 50 cards to R :
⇒ 3x - 50 = x + 50

R will have three times as many cards as H has :
⇒ 3 × (3x - 50) = x + 50
⇒ 9x - 150 = x + 50
⇒ 9x - x = 50 + 150
⇒ 8x = 200
⇒ x = 25.
Number of cards H have = 3x
Number of cards H have = 3 × 25
Number of cards H have = 75
∴ Here, the number of cards 'H' have is 75.
Hence, the correct answer is "75".

94. In a certain code language, 'VLGH' is written as '52', 'QBNZ' is written as '62'. What is the code for "XPRF' in that code language?
a. 69
b. 71
c. 67
d. 73

Ans. c
Explanation:
The logic followed here is :-
Sum of alphabet positional value + 3
'VLGH' is written as '52'.

⇒ 22 + 12 + 7 + 8 = 49
⇒ 49 + 3 = 52 and,
'QBNZ' is written as '62'.



⇒ 17 + 2 + 14 + 26 = 59

⇒ 59 + 3 = 62

Similarly, "XPRF' will be coded as :

⇒ 24 + 16 + 18 + 6 = 64

⇒ 64 + 3 = 67

Hence, the correct answer is "67".

95. Select the word from the following options that CANNOT be formed using the letters of the given word.

CATASTROPHE

a. TRAP

b. STAR

c. TROPHY

d. CASTOR

Ans. c

Explanation:

Option 1) The word ' TRAP' can be made with the word "CATASTROPHE" because all the letters of the word are present in the given word.

Option 2) The word 'STAR' can be made with the word "CATASTROPHE" because all the letters of the word are present in the given word.

Option 3) The word 'TROPHY' cannot be made from the word "CATASTROPHE" because letter 'Y' is used in the given word 'TROPHY' .

Option 4) The word 'CASTOR' can be made with the word " CATASTROPHE" because all the letters of the word are present in the given word.

∴ Here, the word 'TROPHY' cannot be made from given word 'CATASTROPHE'.

Hence, the correct answer is "TROPHY".

96. If GOES is coded as 715519, then what will be the code for FAST?
a. 611519
b. 511620
c. 512620
d. 611920

Ans. d
Explanation:
The logic followed here is :- Representation of alphabets positional values.
GOES is coded as 715519.

Similarly,
FAST will be coded as :

∴ Here, FAST is coded as 611920.
Hence, the correct answer is "611920".

97. Study the given statement and the conclusions carefully and decide which of the following conclusions follow(s) the given statement logically.
Statement:
The British introduced the postal system in India in 1764.
Conclusions:
I. Postal letters often are late, or they are lost.
II. Postmen get less salary, so they tend to make mistakes.
a. Neither of the conclusions I or II follow
b. Both of the conclusions I and II follow
c. Only conclusion I follows

d. Only conclusion II follows

Ans. a
Explanation: According to the given information,
Conclusions 1 → This is not implicit, because there is no relationship between when the postal system was established and Postal letters often being late, or they are lost.
Conclusions 2 → This is not implicit, because there is no statement given regarding postman salary and why they make mistakes.
Hence, " Neither of the conclusions I or II follow ".

98. Anuj, Ankit, Anu and Alka are teachers who teach Biology, History and Mathematics. Biology is the only subject taught by two teachers, one of whom is male. Two of the four are married to each other and they teach History and Biology respectively. Ankit teaches Biology and is unmarried. Anu and Alka are females.
Which subject does Anuj teach?
a. History
b. Mathematics
c. Cannot be determined
d. Biology

Ans. a
Explanation:
Given:
1) Anuj, Ankit, Anu and Alka are teachers who teach Biology, History and Mathematics.
2) Ankit teaches Biology and is unmarried.
3) Biology is the only subject taught by two teachers, one of whom is male.
4) Two of the four are married to each other and they teach History and Biology respectively.
But only one male can teach biology so a second male teaches history and a married female teach biology.

We can't say which female is married so Anu and Alka teach maybe biology and maybe mathematics.

Teachers	Subject
Anuj	History (Married)
Ankit	Biology (Unmarried)
Anu	Biology / Mathematics
Alka	Biology / Mathematics

Hence, Anuj teaches the “History” subject.

99. Select the option in which the words are related to each other in the same way the given words are related.
Whisper : Singing : Sound
a. Babies : Soft : Cute
b. Sea : Underneath : Large
c. Magazine : Book : Read
d. Road : Vehicle : Destination

Ans. c
Explanation:
The logic followed here is :-
The sound is produced when we whisper and when we are singing.
Similarly, The Magazines and Books are printed or produced to Read.
Hence, the correct answer is "Magazine : Book : Read".

100. 'Minute' is related to 'Hour' in the same way as 'Inch’ is related to '_____'.
a. Measure
b. Foot
c. Metre
d. Centigrade
Ans. b

Explanation:
The logic followed here is :-
The time period of 60 minutes is an hour.
Similarly, The unit length of 12 inches is Foot. Hence, the correct answer is "Foot".