



RRB NTPC CBT- I
HELD ON : 30/12/2020 (SHIFT - II)

1. Find the least number, which must be subtracted from 60065 to make it a perfect square.

- (1) 40
- (2) 20
- (3) 35
- (4) 30

ANS: 1

EXPLANATION: The nearest number of 60065 which is a perfect square =

$$(245)^2 = 60025$$

$$\text{Number to be subtracted} = 60065 - 60025 = 40$$

2. When was the provision of Bharat Ratna introduced?

- (1) 1952
- (2) 1954
- (3) 1950
- (4) 1955

ANS: 2

EXPLANATION:

- **The Government of India instituted Bharat Ratna in 1954.**
- **Bharat Ratna is India's Highest Civilian Honour.**
- **The recommendations for Bharat Ratna are made by the prime minister to the president of India.**
- **Any person without distinction of race, occupation, position or sex is eligible for these awards.**
- **It is awarded in recognition of exceptional service/performance of the highest order in any field of human endeavour.**

3. Service sector is a part of _____ an economy.



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(1) primary sector

(2) tertiary sector

(3) public sector

(4) secondary sector

ANS: 2

EXPLANATION:

- The three main types of economic sectors are primary, secondary and tertiary sectors.
- All those economic activities that provide support to people involved in primary and secondary activities are called tertiary sector.
- Tertiary sector is also known as the service sector.
- The Tertiary Sector includes industries such as the financial services industry, Internet technology (IT), and the healthcare and entertainment industries.

4.SAARC comprises how many Member States?

A)10

B)7

C)8

D)12

ANS: C

EXPLANATION:

- The South Asian Association for Regional Cooperation (SAARC) is an economic and political organization in South Asia.
- It was established in 1985.
- Eight countries are its members Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Afghanistan and Sri Lanka.
- The Secretariat of the Association was set up in Kathmandu on 17 January 1987.



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5. How many wars were fought by the British with Mysore?

- (1) 5
- (2) 6
- (3) 3
- (4) 4

ANS: 4

EXPLANATION:

- The Anglo-Mysore Wars was a series of four military confrontations between the British and the rulers of Mysore during the latter half of the 18th century.
- These wars were significant as they marked the decline of Mysore's power and facilitated the expansion of British colonial rule in south India.
- First Anglo-Mysore War (1767-69)
- Second Anglo-Mysore War (1780-84)
- Third Anglo-Mysore War (1790-92)
- Fourth Anglo-Mysore War (1799)

6. Simplify:
$$\frac{25 + 3 \text{ of } 8 - 4}{27 - 3 \text{ of } (8 - 4)}$$

- A) 4
- B) $\frac{37}{15}$
- C) 3
- D) 5

ANS: C

EXPLANATION:



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$$\frac{25 + 3 \text{ of } 8 - 4}{27 - 3 \text{ of } (8 - 4)} = \frac{25 + 24 - 4}{27 - 12}$$
$$= \frac{45}{15} = 3$$

7. Kolleru lake is located in which Indian state?

- (1) Rajasthan
- (2) Kerala
- (3) Maharashtra
- (4) Andhra Pradesh

ANS: 4

EXPLANATION:

- Kolleru Lake is one of the largest freshwater lake located in Andhra Pradesh.
- Kolleru serves as a natural food-balancing reservoir between the deltas of Krishna and Godavari rivers.
- It is one of the Ramsar conservation sites, a paradise for water birds in the country.
- It is an important water fowl habitat and a reservoir of fish with an average production of 7,000 metric tones per year.

8. How many cities were selected in 2016 first batch to be developed as smart cities of India?

- (1) 20
- (2) 25
- (3) 10
- (4) 15



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ANS: 1

EXPLANATION:

- **20 cities were selected for the first batch of Smart Cities by the government on 28 January 2016.**
- **The second batch was announced for 13 cities on 24 May 2016.**
- **The Smart Cities Mission is a novel experiment in India's urban development and it aims to improve the quality of life in 100 cities by providing efficient services, robust infrastructure, and sustainable solutions.**
- **Focused on economic growth, inclusivity, and sustainability, it addresses diverse needs such as housing, transport, education, healthcare, and recreation, with the goal of creating adaptable urban spaces that serve as models for other cities.**

9. Around which year did the construction of Taj Mahal Complex begin?

- (1) 1641 AD
- (2) 1651 AD
- (3) 1632 AD
- (4) 1621 AD

ANS: 3

EXPLANATION:

- **Taj Mahal was built by Mughal Emperor Shah Jahan in memory of his wife Mumtaz Mahal.**
- **Its construction started in 1632 AD and completed in 1648 AD.**
- **It is the jewel of Indo-Islamic architecture.**
- **It is one of the universally admired masterpieces of the world's heritage.**

10. Anil Kumar took a loan of Rs. 24,000 with simple interest for as many years as the rate of interest. If he paid Rs. 19,440 as interest at the end of the loan period, what was the rate of interest?

- (1) 8%
- (2) 9%



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(3) 8.5%

(4) 10%

ANS: 2

EXPLANATION:

$$R = \frac{I \times 100}{P \times N}$$

$$\Rightarrow r = \frac{19440 \times 100}{24000 \times r}$$

$$\Rightarrow r^2 = \frac{1944}{24} = 81 \Rightarrow r = 9\%$$

11. What is the SI unit of force?

(1) Pascal

(2) Newton

(3) Kip

(4) Dyne

ANS: 2

EXPLANATION:



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Force is defined as the rate of change of momentum.

$$1\text{N} = 1\text{kg m s}^{-2}, \text{ or } 1\text{ kg m/s}^2$$

The SI unit of force is the newton, symbol N.

In the CGS system of units, unit of force is 1gcm/s^2 , which is called dyne ($1\text{N}=10^5$ dyne)

Kip is another unit which is equal to 1000 pounds force

The SI unit of pressure is the pascal (Pa).

12. Which part of the Constitution of India contains Fundamental Rights of the citizens of India?

- (1) Part 1
- (2) Part 2
- (3) Part 3
- (4) Part 4

ANS: 3

EXPLANATION:

- Article 12 to 35 contained in Part III of the Constitution deals with Fundamental Rights.

It includes

1. Right to Equality (Article 14-18)
2. Right to Freedom (Article 19-22)
3. Right against Exploitation (Article 23-24)
4. Right to Freedom of Religion (Article 25-28)
5. Cultural and Educational Rights (Article 29-30)



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6. Right to Constitutional Remedies (Article 32)

- There was one more fundamental right in the Constitution, i.e., the right to property.
- However, this right was removed from the list of fundamental rights by the 44th Constitutional Amendment.
- The right to property is now a legal right and not a fundamental right.

13. Botanical name of banyan tree is:

- (1) *Ficus benghalensis*
- (2) *Ocimum tenuiflorum*
- (3) *Ficus religiosa*
- (4) *Azadirachta indica*

ANS: 1

EXPLANATION:

- Scientific name of the Banyan Tree is *Ficus benghalensis*.
- It is found in almost all the parts of India.
- The species is indigenous to the Indian subcontinent and is considered sacred in Indian mythology.
- It is the National tree of India and has both religious and ecological importance.
- The Banyan tree is the major Oxygen contributor among all the tree and plant species.

14. Buying or selling goods electronically is known as:

- (1) multimedia
- (2) e-commerce
- (3) money control
- (4) finance



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ANS: 2

EXPLANATION:

- E-commerce is the buying and selling of goods and services over an electronic network, primarily the internet.
- These business transactions occur either as business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer or consumer-to-business.
- Lower Cost, Personalization and product recommendation and no geographical barrier etc are the major advantages of E-commerce.

15. Find the greatest number less than 500 that is, divisible by 6, 14 and 28.

(1) 480

(2) 420

(3) 460

(4) 440

ANS: 2

EXPLANATION:

$$\begin{array}{r|l} 2 & 6, 14, 28 \\ \hline 7 & 3, 7, 14 \\ \hline & 3, 1, 2 \end{array}$$

$$\text{LCM} = 2 \times 2 \times 3 \times 7 = 84$$

$$\text{Required number} = 84 \times 5 = 420$$



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16. A shopkeeper marks his goods at a price so that after allowing a discount of 20%, he still makes a profit of 8%. Find the marked price of an article which costs him Rs. 500.

- (1) Rs. 875
- (2) Rs. 575
- (3) Rs. 765
- (4) Rs. 675

ANS: 4

EXPLANATION:

Let marked price of article = Rs. x

$$MP = 500 \times \frac{100}{80} \times \frac{108}{100} = 675$$

17. A man travels a distance of 420 km by train which moves at the speed of 75 km/h and returns back by car at the speed of 50 km/h. Find his average speed for the whole Journey,

- (1) 68 km/h
- (2) 65 km/h
- (3) 66 km/h
- (4) 60 km/h

ANS: 4

EXPLANATION:

Average speed

$$\frac{2 \times 75 \times 50}{75 + 50} = \frac{2 \times 75 \times 50}{125} \\ = 60 \text{ km/hr}$$



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18. Who among the following was the president of Indian National Congress in 1931?

- (1) Vallabhbhai J Patel
- (2) Subhash Chandra Bose
- (3) Dr. Rajendra Prasad
- (4) Nellie Sengupta

ANS: 1

EXPLANATION:

- The Karachi Session of the Indian National Congress, which took place in 1931 marked a crucial juncture for the freedom struggle.
- Sardar Patel, born in Kheda, Gujarat was elected as the President of the Congress at the Session, and steered the party during this critical moment.
- The Karachi Session of the Congress was notable as it was the first session to take place after the signing of the Gandhi-Irwin Pact, and the death of Bhagat Singh and his comrades.
- It was in this heated and turbulent context that Sardar Patel was elected to the Presidency of the Congress.
- He also expressed his approval of the Gandhi-Irwin Pact

19. The horizontal distance between two towers is $40\sqrt{3}$ m. The angle of depression of the top of the first tower when seen from the top of the second tower is 30° . If the height of the second tower is 130 m. find the height of the first tower.

- (1) 80 m
- (2) 95 m
- (3) 85 m
- (4) 90 m

ANS: 4

EXPLANATION:



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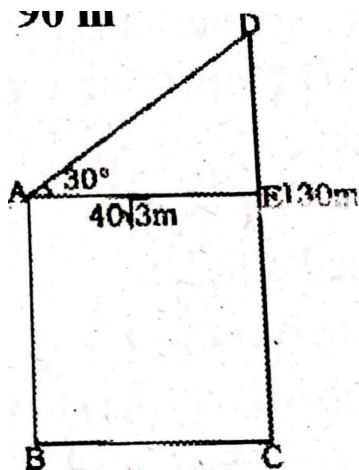
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- Let AB be the first tower and CD be the second tower.

$$AB = h \text{ m}$$

$$\text{In } \triangle ADE \tan 30^\circ = \frac{DE}{AE}$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{130 - h}{40\sqrt{3}}$$

$$\Rightarrow 130 - h = 40$$

$$\Rightarrow h = 130 - 40 = 90 \text{ cm}$$

$$\therefore \text{Height of first tower} = 90 \text{ m}$$

20. What is the theme of world environment day 2019 ?

- A) Soil pollution
- b) Air pollution
- c) Deforestation
- D) Water pollution

Ans: 2

Explanation:

- World Environment Day is celebrated on 5th June
- The theme for 2019 World Environment Day was "Air pollution".
- In 2019, China hosted the global World Environment Day.



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- **World Environment Day (June 5)** is the United Nations day for encouraging world wide awareness and action to protect our government.
- **2024-Theme: Land restoration, desertification and drought resilience**
- **2023-Theme: Solutions to Plastic Pollution.**

21. Which of the following is the classical dance form of erst while Andhra Pradesh?

- (1) Kathakali
- (2) Bharatnatyam
- (3) Kathak
- (4) Kuchipudi

Ans: 4

Explanation:

- **Kuchipudi dance is associated with the state of Andhra Pradesh.**
- **In fact, Kuchipudi is the name of a village in the Krishna district of Andhra Pradesh.**
- **It is one of the classical styles of Indian dance.**
- **It differs from the other five classical styles by the inclusion of singing.**
- **Kuchipudi originated in the 17th century.**

22. Select the number from among the given options that can replace the question mark (?) in the following series

70, 72, 78, 80? 88, 94

- (1) 80
- (2) 96
- (3) 86
- (4) 74



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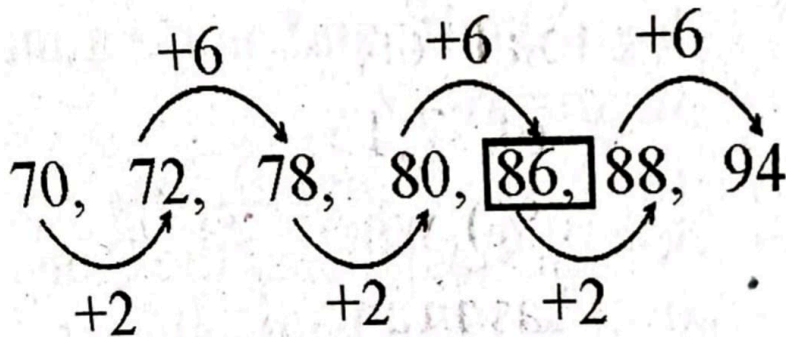
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Ans: 3

Explanation:



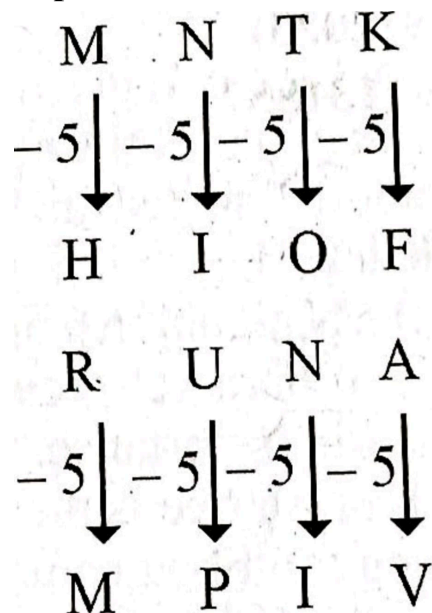
23. Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

MNTK: HIOF:: RUNA:?

- (1) MPIV
- (2) MPJV
- (3) NPIU
- (4) VZSF

Ans: 1

Explanation:



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24. The sum of two numbers is 5 times their difference. If the smaller number is 24, find the larger number.

- (1) 32
- (2) 48
- (3) 30
- (4) 36

Ans: 4

Explanation:

Let larger number = x

$$x + 24 = 5(x - 24)$$

$$\Rightarrow x + 24 = 5x - 120$$

$$\Rightarrow 5x - x = 24 + 120$$

$$\Rightarrow 4x = 144$$

$$\Rightarrow x = \frac{144}{4} = 36$$

25. When was the first session of Indian National Congress held?

- (1) June 1885
- (2) December 1889
- (3) December 1885
- (4) November 1889

Ans: 3

Explanation:

- The first session of the Indian National Congress was conducted in Bombay from 28-30 December 1885.
- W.C. Bannerjee presided as President over this session.
- On 28 December 1885, 72 social reformers, journalists and lawyers congregated for the first session of Indian National Congress at Gokuldas Tejpal Sanskrit College, Bombay.



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If $\sqrt{1225 \times \sqrt{32 \div x}} = 70$, find
26. the value of x .

- a)8
- b)2
- c)16
- d)4

Ans: b

Explanation:

$$\sqrt{1225 \times \sqrt{32 \div x}} = 70$$

$$\sqrt{32 \div x} = \frac{70 \times 70}{1225} = 4$$

$$\Rightarrow \frac{32}{x} = 4^2 = 16$$

$$\Rightarrow x = \frac{32}{16} = 2$$

27. simplify:

$$12.25 + \frac{7}{8} \text{ of } 56 - 9$$

$$(25 \div 5 \times 10.25) + \frac{10}{9} \text{ of } \left(\frac{7}{2} - \frac{4}{5} \right) - 2$$

- a)2
- b)1
- c)5
- d)15

Ans: B

Explanation:



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$$\begin{aligned} & \frac{12.25 + 49 - 9}{(5 \times 10.25) + \frac{10}{9} \text{ of } \left(\frac{35 - 8}{10} \right) - 2} \\ &= \frac{12.25 + 40}{51.25 + \frac{10}{9} \times \frac{27}{10} - 2} \\ &= \frac{52.25}{51.25 + 3 - 2} = \frac{52.25}{52.25} = 1 \end{aligned}$$

28. The average salary of the entire staff in an office is Rs. 3,560 per month. The average salary of the officers is Rs. 5,400 per month and that of the non-officers is Rs. 2,600 per month. If the number of officers is 12. find the number of non-officers in the office.

- (1) 25
- (2) 22
- (3) 24
- (4) 23

Ans: 4

Explanation:



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Let number of non officers = x

Then, $(12 + x) 3560$

$$= 12 \times 5400 + 2600 x$$

$$\Rightarrow 12 \times 3560 + 3560 x$$

$$= 12 \times 5400 + 2600 x$$

$$\Rightarrow 3560 x - 2600 x$$

$$= 12 (5400 - 3560)$$

$$\Rightarrow 960 x = 12 \times 1840$$

$$= x = \frac{12 \times 1840}{960} = 23$$

29. Which of the following states has implemented 'Kudum bashree', a women oriented community-based poverty reduction programme?

- (1) Tamil Nadu
- (2) Andhra Pradesh
- (3) Kerala
- (4) West Bengal

Ans: 3

Explanation:

- Kudumbashree is the State Poverty Eradication Mission of Government of Kerala.
- It was started in 1998.
- It envisaged local economic development, social development and women empowerment.

30. Select the number from among the given options that can replace the question mark (?) in the following series. 8, ? 30, 105, 472.5

- (1) 13
- (2) 11
- (3) 14
- (4) 12

Ans: 4

Explanation:



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$$8, 12, 30, 105, 472.5$$

$$\div 1.5 \quad \div 2.5 \quad \div 3.5 \quad \div 4.5$$

31. Which is the highest literate state of India as per Census 2011?

- (1) Mizoram
- (2) Goa
- (3) Kerala
- (4) Lakshadweep

ANS: 3

EXPLANATION:

- According to the 2011 Census: The literacy rate in the country is 74.04 per cent. 82.14 for males and 65.46 for females.
- Kerala has the highest literacy rate in India at 93.91%,
- Kerala is the most literate state in India.
- Bihar has the least literacy rate in India of 63.82%.

Simplify: $245 - [135 - [84 \div 4$
 32. of $3 - (11 - 12 \div 3)]$

- A)90
- B)100
- C)120
- D)110

ANS: D

EXPLANATION:



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$$\begin{aligned} & 245 - [135 - (84 \div 4 \text{ of } 3 - \\ & (11 - 12 \div 3))] \\ & = 245 - [135 - (84 \div 12 - (11 - 4)) \\ & = 245 - [135 - (7 - 7)] \\ & = 245 - 135 = 110 \end{aligned}$$

33. When was the Dowry Prohibition Act commenced?

- (1) 1965
- (2) 1961
- (3) 1963
- (4) 1960

ANS: 2

EXPLANATION:

- Dowry Prohibition Act, with enacted on May 20, 1961
- It intended to prevent the giving or receiving of a dowry.
- In this act, dowry means any property or valuable security given or agreed to be given either directly or indirectly.
- It can be by the parents of either party, or by anyone else in connection with the marriage.

34. Among The following words. Which one will come in the middle if they arrange as per their order in an English dictionary?

1. Dance
 2. Degree
 3. Dare
 4. Dear
 5. Development
- (1) Dear
 - (2) Dance
 - (3) Degree



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(4) Dare

ANS: 1

EXPLANATION: Dance → Dare → Dear → Degree → Development

Middle word = Dear

35. What is the total forest cover of India as per ISFR report 2019?

- (1) 21.05% of the total geo-graphical area of the country
- (2) 24.16% of the total geo-graphical area of the country
- (3) 24.39% of the total geo-graphical area of the country
- (4) 21.67% of the total geo-graphical area of the country

ANS: 4

EXPLANATION:

- The total forest cover of the country is 7,12,249sq km which is 21.67% of the geographical area of the country.
- The Tree cover is 2.89% of the geographical area of the country. [ISFR Report 2019]
- In 2023 the total forest and tree cover of the country is 8,27,356.95 km² which is 25.17% of the geographical area of the country.
- The total forest cover has an area of 7,15,342.61 km² (21.76%) where as the tree cover has an area of 1,12,014.34 km² (3.41%) (As per ISFR Report 2023)

36. In a certain code language, 'FRENCH' is written as '83145186', 'HAPPEN' is written as '145161618'. What is the code for 'GERMAN' in that code language?

(1) 141131857

(2) 1411211959

(3) 151121859

(4) 151318517

ANS: 1

EXPLANATION:



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6 18 5 14 38

F R E N C H → 8314518 6

8 1 16 16 514

H A P P E N → 45161618

7 5 18 13 114

G E R M A N → 14131857

37. A sum of money is invested for 2 years at 10% compound interest p.a. It would fetch Rs. 1,762 more if interest is calculated half yearly. Find the sum invested.

(1) Rs. 3,40,000

(2) Rs. 3,20,000

(3) Rs. 3,30,000

(4) Rs. 2,30,000

ANS: 2

EXPLANATION:



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$$A = P \left(1 + \frac{r}{100} \right)^2$$

$$\Rightarrow A = P \left(1 + \frac{10}{100} \right)^2$$

$$\Rightarrow A = P \left(\frac{11}{10} \right)^2 = \frac{121P}{100}$$

When interest is compounded

half yearly. $r = \frac{10}{2} = 5\%$,

$$n = 2 \times 2 = 4$$

$$= \frac{121P}{100} + 1762 = P \left(1 + \frac{5}{100} \right)^4$$

$$= P \left(1 + \frac{1}{20} \right)^4$$

$$= P \times \frac{21}{20} \times \frac{21}{20} \times \frac{21}{20} \times \frac{21}{20}$$

$$\Rightarrow A = \frac{121P}{100} + 1762$$

$$= \frac{194481}{160000} P$$

$$\Rightarrow \frac{194481P - 193600P}{160000} = 1762$$

$$\Rightarrow 881P = 1762 \times 160000$$

$$\Rightarrow P = \frac{1762 \times 160000}{881}$$

$$= \text{Rs. } 3,20,000$$



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38. Which is India's newest nuclear power plant?

(1) Kudankulam

(2) Kaiga

(3) Kalpakkam

(4) Tarapur

ANS: 1

EXPLANATION:

- India has 22 nuclear power reactors operating in 7 states, with an installed capacity of 6780 MegaWatt electric (MWe).
- Kudankulam is a joint project between India and Russia and it plays a critical role in India's nuclear energy sector.
- The Kudankulam Nuclear Power Plant (KKNPP), located in Tamil Nadu.
- It is the largest nuclear power plant in India.

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

5	4	141
6	2	220
7	3	?

A)328

B)296

C)284

D)352

ANS: 4

EXPLANATION:



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From Row I, $5^3 + 4^2 = 125 + 16$
 $= 141$

From Row-II, $6^3 + 2^2 = 216 + 4$
 $= 220$

From Row-III,
 $7^3 + 3^2 = 343 + 9 = 352$

40. Pointing to a woman, Supriya said, "This woman is the daughter of the only child of my grandmother." How is the woman related to Supriya?

- A) Sister
- B) Mother
- C) Grandmother
- D) Sister - in - law

ANS: A

EXPLANATION: 'Supriya's ,grandmother has only child, Supriya 's mother , and daughter of supriya's mother mean that woman, Hence woman is sister of Supriya.

41. When was India's first satellite, the Aryabhata spacecraft launched?

- (1) April 19, 1975
- (2) April 19, 1976
- (3) June 10, 1979
- (4) June 10, 1980

ANS: 1

EXPLANATION:

- It was launched by a Soviet Kosmos-3M rocket from Kapustin Yar on April 19, 1975.



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- **Aryabhata was built by the Indian Space Research Organization (ISRO) to conduct experiments in X-ray astronomy, aeronomics, and solar physics.**
- **The spacecraft was a 26-sided polygon 1.4 m in diameter. All faces (except the top and bottom) were covered with solar cells.**
- **The satellite reentered the Earth's atmosphere on 11 February 1992.**

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

- (1) 50
- (2) 170
- (3) 82
- (4) 59

ANS: 4

EXPLANATION: 50, 170, 82 all three are even numbers, while '59' is an odd number.

43. Who devised the policy of Doctrine of Lapse?

- (1) Lord Clive
- (2) General Dyer
- (3) Lord Dalhousie
- (4) Lord Hastings

ANS: 3

EXPLANATION:

- **The Doctrine of Lapse was implemented by Lord Dalhousie, the Governor-General of India, during the 19th century.**



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- It contributed to the centralization of British power, and economic exploitation, and sowed the seeds of discontent that eventually led to significant political changes in India.
- The Doctrine of Lapse was a policy through which the British East India Company could annex any princely state if it lacked a natural heir.
- This led to the annexation of several states, including Satara, Jhansi, and Nagpur.

44. If $x:y = 4:9$ Find $9x+4y: 18x + 3y$

A) 2:3

B) 11:8

C) 3:2

D) 8:11

ANS: 4

EXPLANATION:

$$\frac{x}{y} = \frac{4}{9} \Rightarrow 9x = 4y$$
$$\frac{9x + 4y}{18x + 3y} = \frac{4y + 4y}{2 \times 9x + 3y}$$
$$= \frac{8y}{2 \times 4y + 3y} = \frac{8y}{11y} = 8:11$$

45. Which countries have been declared malaria-free by WHO in May 2019?

(1) Mauritius and Malaysia

(2) Algeria and Argentina



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(3) India and Singapore

(4) Belgium and Qatar

ANS: 2

EXPLANATION:

- **On 22nd May the World Health Organisation (WHO) declared Algeria and Argentina malaria free.**
- **The certification is granted when a country proves that it has interrupted malaria transmission for at least three consecutive years within its borders.**
- **Algeria is the second country in the WHO African Region to be officially recognized as malaria-free, after Mauritius, which was certified in 1973.**
- **Argentina is the second country in the WHO Region of the South Americas to be certified in 45 years, after Paraguay in June 2018.**

46. What is the approximate total length of the coastline of India including the coastline of Lakshadweep islands and Andaman & Nicobar Islands?

(1) 4523 km

(2) 5717 km

(3) 7517 km

(4) 5423 km

ANS: 3

EXPLANATION:

- **The total length of the coastline of the mainland, Lakshadweep Islands and Andaman & Nicobar Islands is 7,516.6 km.**
- **The Indian peninsula is separated from mainland Asia by the Himalayas.**



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- The Country is surrounded by the Bay of Bengal in the east, the Arabian Sea in the west, and the Indian Ocean to the south.

47. How many members are there in Rajya Sabha?

(1) 240

(2) 230

(3) 225

(4) 250

ANS: 4

EXPLANATION:

- The Rajya Sabha consists of not more than 250 members.
- 238 members representing the States and Union Territories, and 12 members nominated by the President.
- It is a permanent body and is not subject to dissolution.
- However, one third of the members retire every second year, and are replaced by newly elected members.
- Each member is elected for a term of six years.

48. If $x^4 + \frac{1}{x^4} = 194$, find $x^3 + \frac{1}{x^3}$

A) 56

B) 52

C) 54



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D)62

ANS: B

EXPLANATION:

$$\begin{aligned}x^4 + \frac{1}{x^4} &= 194 \\ \Rightarrow x^4 + \frac{1}{x^4} + 2 &= 194 + 2 \\ \Rightarrow \left(x^2 + \frac{1}{x^2}\right)^2 &= 196 = 14^2 \\ \Rightarrow x^2 + \frac{1}{x^2} &= 14 \\ \Rightarrow x^2 + \frac{1}{x^2} + 2 &= 14 + 2 \\ \Rightarrow \left(x + \frac{1}{x}\right)^2 &= 16 = 4^2 \\ \left(x + \frac{1}{x}\right) &= 4 \\ x^3 + \frac{1}{x^3} &= \left(x + \frac{1}{x}\right)^3 - 3\left(x + \frac{1}{x}\right) \\ &= 4^3 - 3 \times 4 \\ &= 64 - 12 \\ &= 52\end{aligned}$$

49. The length, breadth and height of a cuboid are 27 cm, 18 cm and 21 cm respectively. How many cubes of side 3 cm can be cut from the cuboid?

(1) 368

(2) 378

(3) 278

(4) 738

ANS: 2

EXPLANATION:



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No. of cubes

$$= \frac{\text{Volume of cuboid}}{\text{Volume of cube}}$$

$$= \frac{l \times b \times h}{a^3} = \frac{27 \times 18 \times 21}{3^3}$$

$$= 18 \times 21 = 378$$

50. A and B can complete a piece of work in 20 days, B and C can complete it in 30 days. A is twice as good as C in completing the work. Find in how many days will B alone complete it.

- (1) 55 days
- (2) 65 days
- (3) 50 days
- (4) 60 days

ANS: 4

EXPLANATION:



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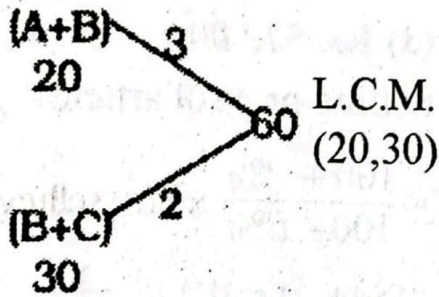
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$$A = 2C$$

$$C's\ 1\ day\ work = 3 - 2 = 1$$

∴ Time taken by C to complete

$$the\ work = \frac{60}{1} = 60\ days$$

∴ Time taken by B alone to

$$complete\ the\ work = \frac{60 \times 30}{60 - 30}$$

$$= \frac{60 \times 30}{30} = 60\ days$$

51. In Computer field, OLE is the abbreviation of:

- (1) Object Linking and Embedding
- (2) Object Linking and Enabling
- (3) Object Linking Extension
- (4) Object Location Enabling

ANS: 1

EXPLANATION:

- Object linking and embedding (OLE) is a Microsoft technology that facilitates the sharing of application data and objects written in different formats from multiple sources.
- Linking establishes a connection between two objects, and embedding facilitates application data insertion.



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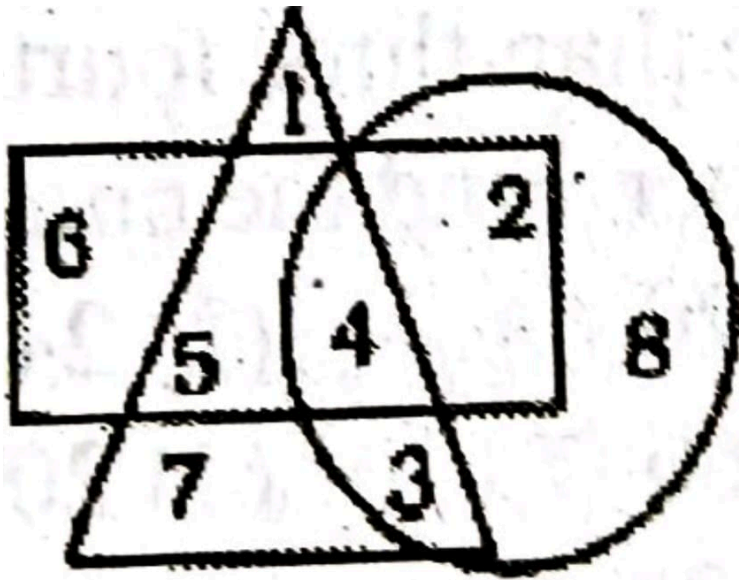
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- OLE is used for compound document management, as well as application data transfer via drag-and-drop and clipboard operations.

52. In the given diagram, which number is in all the geometrical figures?



- (1) 8
- (2) 5
- (3) 3
- (4) 4

ANS: 4

EXPLANATION: From the given diagram 4 is in all geometrical figures

53. In a firm, the ratio of male and female officers is in the ratio 4:7. If 50 male officers and 100 female officers are shifted to another firm, then the ratio of male and female officers becomes 7:12. Find the number of male officers before shifting in the firm.



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(1) 450

(2) 300

(3) 500

(4) 400

ANS: 4

EXPLANATION:

Let no. of males = $4k$

No. of females = $7k$

$$\text{Then, } \frac{4k - 50}{7k - 100} = \frac{7}{12}$$

$$\Rightarrow 49k - 700 = 48k - 600$$

$$k = 700 - 600 = 100$$

$$\therefore \text{No. of males} = 4 \times 100 = 400$$

54. A and B can complete a job in 40 days and 60 days respectively. They work together for some days and B leaves the job. If A completes the rest of the work in 10 days, find for how many days B worked.

(1) 15 days

(2) 14 days

(3) 18 days

(4) 16 days

ANS: 3

EXPLANATION:



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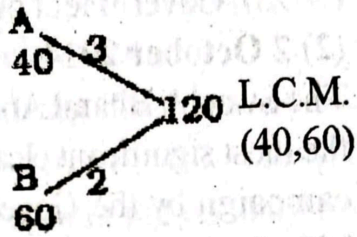
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Work done by A in 10 days

$$= 3 \times 10 = 30$$

$$\text{Remaining work} = 120 - 30 = 90$$

Time taken by (A + B) to

$$\text{complete 90 works} = \frac{90}{3+2}$$

$$= \frac{90}{5} = 18 \text{ days}$$

55.If the length and breadth of a rectangular plot of land are increased by 10% and 8% respectively, then by how much percentage will its area increase or decrease?

- (1) 16.8% decrease
- (2) 18.8% decrease
- (3) 18.8% increase
- (4) 16.8% increase

ANS: 3

EXPLANATION:



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Percentage change in area

$$= \left(x + y + \frac{xy}{100} \right) \%$$

$$= \left(10 + 8 + \frac{10 \times 8}{100} \right) \%$$

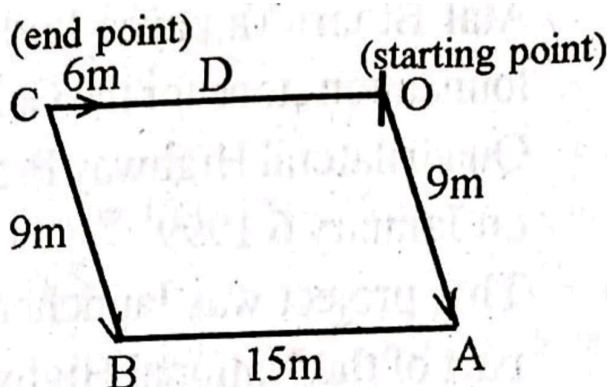
$$= 18.8\% \text{ increase}$$

56. Radha walks a distance of 9 m towards the South-East. Then she walks 15 m towards the West. From here, she walks 9 m towards the North-West. Finally she walks 6 m towards the East and stands at the point. How far is she standing from the starting point?

- (1) 11 m
- (2) 13 m
- (3) 10 m
- (4) 9 m

ANS: 4

EXPLANATION:



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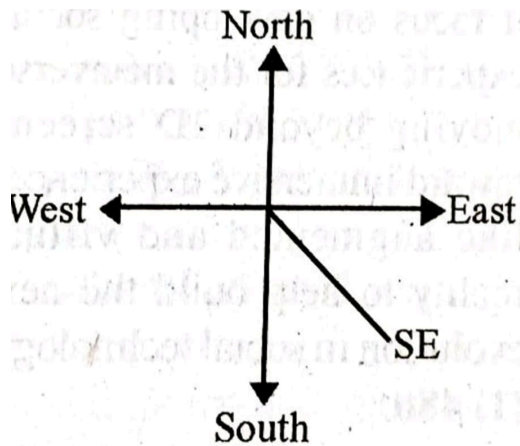
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$$\text{Distance} = OD = OC - CD,$$
$$(OC = AB) = 15 - 6 = 9\text{m}$$

57. The sum of two positive numbers is 384 and their HCF is 24. How many pairs of such numbers can be formed?

(1) 4

(2) 5

(3) 8

(4) 3

ANS: 1

EXPLANATION:



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Let the numbers are $24x$ and $24y$.

Then,

$$24x + 24y = 384$$

$$\Rightarrow 24(x + y) = 384$$

$$\Rightarrow x + y = \frac{384}{24} = 16$$

Pair of numbers = $(15, 1)(13, 3)$

$(11.5) (9.7)$

\therefore Number of required pair of
numbers = 4

58. Who was one of the co-founder of Ghadar Party?

- (1) Gopal Krishan Gokhale
- (2) Dada Bhai Naroji
- (3) Har Dayal
- (4) Lala Lajpatrai

ANS: 3

EXPLANATION:

- Ghadar Party was founded by Lala HarDayal in San Francisco (United States) 1913.
- The main reason behind its formation was the desire to free their motherland from subjugation and to overcome centuries of humiliation.
- The Jalandhar district of Punjab was an important centre of the Ghadar activities in india.

59. Who is the founder of Facebook?

- (1) Tim Berners Lee
- (2) Bill Gates



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(3) Mark Zuckerberg

(4) Michael S Dell

ANS: 3

EXPLANATION:

- Mark Zuckerberg is the founder, chairman and CEO of Meta, which he originally founded as Facebook in 2004.
- In October 2021, Facebook rebranded to Meta to reflect all of its products and services across its family of app.
- It focus on developing social experiences for the metaverse moving beyond 2D screens toward immersive experiences like augmented and virtual reality to help build the next evolution in social technology.

60. Out of three numbers, the first number is twice of the second and thrice of the third number. If the average of the three numbers is 880. What is the smallest number?

(1) 480

(2) 840

(3) 460

(4) 420

ANS: 1

EXPLANATION:



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Let first number = x

Second number = $\frac{x}{2}$

Third number = $\frac{x}{3}$

$$\Rightarrow x + \frac{x}{2} + \frac{x}{3} = 3 \times 880$$

$$\Rightarrow 6x + 3x + 2x = 3 \times 880 \times 6$$

$$\Rightarrow 11x = 3 \times 880 \times 6$$

$$\Rightarrow x = 3 \times 880 \times 6 = 1440$$

$$x = 1440$$

$$\frac{x}{2} = \frac{1440}{2} = 720$$

$$\frac{x}{3} = \frac{1440}{3} = 480$$

Smallest number = 480

61. In $\triangle ABC$, $\angle A = 90^\circ$. $AB = 6$ cm and $AC = 8$ cm. If AD is perpendicular to BC , the AD is equal to:

- (1) 4.6 cm
- (2) 4.4 cm
- (3) 4.8 cm



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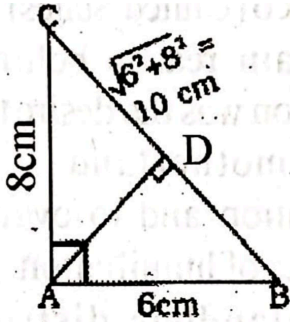


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(4) 3.8 cm

Ans: 3

Explanation:



$$\frac{1}{2} \times BC \times AD = \frac{1}{2} \times 8 \times 6$$
$$\Rightarrow \frac{1}{2} \times 10 \times AD = \frac{1}{2} \times 8 \times 6$$
$$\Rightarrow AD = \frac{48}{10} = 4.8 \text{ cm}$$

62. When was the Indian National Committee for Space Research formed?

- (1) 1962
- (2) 1965
- (3) 1963
- (4) 1961

Ans: 1

Explanation:

- ISRO was previously the Indian National Committee for Space Research (INCOSPAR), set up by the Government of India in 1962, as envisioned by Dr. Vikram Sarabhai.
- ISRO was formed on August 15, 1969 and superseded INCOSPAR with an expanded role to harness space technology.
- ISRO is the Space Agency of India
- The organisation is involved in science, engineering and technology to harvest the benefits of outer space for India and the mankind.



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- ISRO is a major constituent of the Department of Space (DOS), Government of India.

63. When was the Swachh Bharat Mission launched?

- (1) 15 August 2015
- (2) 2 October 2014
- (3) 15 August 2014
- (4) 2 October 2015

Ans: 2

Explanation:

- The Swachh Bharat Abhiyan is the most significant cleanliness campaign by the Government of India.
- On 2nd October 2014, Swachh Bharat Mission was launched throughout the length and breadth of the country as a national movement.
- The campaign aims to achieve the vision of a 'Clean India' by 2nd October 2019,

64. By selling an article for Rs. 45,000, a man loses 10%. For what amount should he sell it so as to gain 15%.

- (1) Rs. 67,500
- (2) RS. 55,700
- (3) Rs. 57,500
- (4) Rs. 75,500

Ans: 3

Explanation:



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Selling price of article

$$= \frac{100 + P\%}{100 - L\%} \times \text{First selling price}$$

$$= \frac{100 + 15}{100 - 10} \times 45000$$

$$= 115 \times 500$$

$$= \text{Rs. } 57500$$

65. Who launched the Golden Quadrilateral Project?

- (1) Jawaharlal Nehru
- (2) Manmohan Singh
- (3) Narendra Modi
- (4) Atal Bihari Vajpayee

Ans: 4

Explanation:

- Golden Quadrilateral is a network of highways connecting India's four top metropolitan cities, namely Delhi, Mumbai, Chennai and Kolkata.
- Atal Bihari Vajpayee laid the foundation stone for the Golden Quadrilateral Highway Project on January 6 1999.
- This project was launched as part of the National Highways Development Project (NHDP).
- It is the largest highway project in India.

66. Which is RK Narayan's first novel?

- (1) The Guide
- (2) Malgudi Days
- (3) The English Teacher



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(4) Swami and Friends

Ans: 4

Explanation:

- Swami and Friends is the first of a trilogy of novels written by R. K. Narayan (1906-2001), English language novelist from India.
- The novel, the first book Narayan wrote, is set in British India in a fictional town called Malgudi.
- The second and third books in the trilogy are The Bachelor of Arts and The English Teacher.
- R.K Narayan wrote many books such as 'Waiting for the Mahatma', 'The Sweet Vendor, The Dark Room', 'The Guide, Tales from Malgudi', 'A Tiger for Malgudi'. etc.

If $a + b = 10$ and $a^2 + b^2 = 68$,

67. find $a^3 + b^3$.

A)520

B)560

C)620

D)540

ANS: A

EXPLANATION:

$$a + b = 10, \quad a^2 + b^2 = 68$$

$$(a + b)^2 = 10^2$$

$$\Rightarrow a^2 + b^2 + 2ab = 100$$

$$68 + 2ab = 100$$

$$\Rightarrow ab = \frac{100 - 68}{2} = \frac{32}{2} = 16$$

$$a^3 + b^3 = (a + b)^3 - 3ab(a + b)$$

$$= (10)^3 - 3 \times 16 \times 10$$

$$= 1000 - 480 = 520$$



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68. A man walks around a circular pond exactly once. If his step is 44 cm long and he takes 700 steps to go around the pond, find the area of the pond.

- (1) 6574 m²
- (2) 7456 m²
- (3) 6546 m²
- (4) 7546 m²

ANS: 4

EXPLANATION:

Perimeter of circular pond

$$= 700 \times 44$$

$$2\pi r = 700 \times 44$$

$$\Rightarrow 2 \times \frac{22}{7} \times r = 700 \times 44$$

$$\Rightarrow r = 700 \times 7 = 4900 \text{ cm}$$

$$= \frac{4900}{100} = 49 \text{ m}$$

Area of pond = πr^2

$$= \frac{22}{7} \times (49)^2 = \frac{22}{7} \times 49 \times 49$$

$$= 22 \times 7 \times 49 = 7546 \text{ m}^2$$

69. A solution reacts with chalk, powder to give a gas that turns lime-water milky. The solution contains:

- (1) HCl



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(2) NaCl

3) $AlCl_3$

4) $MgCl_2$

ANS: 1

EXPLANATION:

- Chalk powder when reacted with hydrochloric acid releases lime water milky.
- The solution contains HCl. Chalk will dissolve in a strong acid such as hydrochloric even when diluted.
- The chemical formula of chalk is $CaCO_3$. The chemical formula of hydrochloric acid is HCl.

70. Which year was the Beti Bachao, Beti Padhao yojana launched?

(1) 2017

(2) 2015

(3) 2014

(4) 2016

ANS: 2

EXPLANATION:

- Beti Bachao Beti Padhao (BBBP) was launched on 22nd January, 2015 at Panipat, Haryana.
- It addresses the declining Child Sex Ratio (CSR) and related issues of women empowerment over a life-cycle continuum.
- It is a tri-ministerial effort of Ministries of Women and Child Development, Health & Family Welfare and Human Resource Development.
- It initially focused multi-sector action in 100 districts throughout the country where there was a low Child Sex Ratio.



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- The programme is being implemented across 405 districts in the country.

71. Triangle ABC is an isosceles triangle in which $\angle C = 90^\circ$ If $AC = 8$ cm, find AB.

- (1) 8 cm
- (2) 6 cm
- 3) 10 cm
- 4) $8\sqrt{2}$ cm

ANS: 4

EXPLANATION:

ΔABC is an isosceles right triangle $\angle C = 90^\circ$

$$AC = BC = 8\text{cm}$$

$$AB = \sqrt{AC^2 + BC^2}$$

$$= \sqrt{8^2 + 8^2} = \sqrt{64 + 64}$$

$$= 8\sqrt{2} \text{ cm}$$

72. Four fifths of a number is 12 more than three fourths of the number. Find the number.

- (1) 120
- (2) 240
- (3) 160
- (4) 200

ANS: 2

EXPLANATION:



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Let the number be x

$$\Rightarrow \frac{4x}{5} - \frac{3x}{4} = 12$$

$$\Rightarrow \frac{16x - 15x}{20} = 12$$

$$\Rightarrow x = 12 \times 20 = 240$$

73. In 2020, How many countries of the world have Veto power in the United Nations Security Council?

- (1) 6
- (3) 4
- (2) 5
- (4) 7

ANS: 2

EXPLANATION:

- The security council was established by the UN charter in 1945.
- It is one of the six principal organs of the United Nations.
- The council has 15 members. the five permanent members and ten non-permanent members elected for two-year terms.
- Veto power is a special power given to the permanent members of the United Nations Security Council (UNSC). namely China, France, Russia. the United Kingdom, and the United States.
- Essentially, it gives these countries the ability to reject or veto any action by the UNSC that does not align with their national interests or foreign policy objectives.

74. How many categories are there of the Nobel prize?



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- a)5
- b)4
- c)6
- d)7

Ans: c

Explanation:

- The Nobel Prize rewards science, humanism and peace efforts.
- This is one of the central concepts in the will of Alfred Nobel, and it also permeates the outreach activities that have been developed for the purpose of engaging, inspiring and spreading knowledge about the Nobel Prize as well as the discoveries and achievements of the laureates.
- The Nobel Foundation was established in 1900.
- The prizes were awarded in Sweden and Norway.

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

7	8	5	8
6	5	4	7
5	2	2	3
12	30	12	?

- a)24
- b)35
- c)49
- d)28

Ans: b



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Explanation:

Column-I: $(7 \times 6) - (6 \times 5) = 12$

Column-II: $(8 \times 5) - (5 \times 2) = 30$

Column-III: $(5 \times 4) - (4 \times 2) = 12$

Column-IV: $(8 \times 7) - (7 \times 3)$
 $= 56 - 21 = 35$

76. In the four letter-clusters given below, three are alike in some manner and one is different. Select the odd one.

(1) FHJ

(2) EIK

(3) CGI

(4) AEG

Ans: 1

Explanation:

$$F \xrightarrow{+2} H \xrightarrow{+2} J$$

$$E \xrightarrow{+4} I \xrightarrow{+2} K$$

$$C \xrightarrow{+4} G \xrightarrow{+2} I$$

$$A \xrightarrow{+4} E \xrightarrow{+2} G$$



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77. Symbol for Methane is



ANS: A

EXPLANATION:

Methane's chemical formula is



It is the simplest of the saturated hydrocarbons with a chemical formula CH_4

It consists of four hydrogen atoms and one carbon atom and is the simplest alkane ($C_n H_{2n+2}$)

It can be found under the sea floor as well as below the ground. Methane is also known as Marsh gas.

78. Who discovered a cell

(1) Rudolf Virchow

(2) Theodor Schwann

(3) Matthias Schleiden

(4) Robert Hooke



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ANS: 4

EXPLANATION:

- In 1665, cell was first discovered and named by Robert Hooke.
- He observed cells in a cork slice and explained these cells in a book called Micrographia.
- He observed cells in a cork slice under his self-designed microscope and noticed honeycomb like compartments. He coined them as cells.
- The cell is a structural & functional unit of living organisms.

79. What is the freezing point of water on the Kelvin scale?

- (1) 173.15 K
- (2) 473.15 K
- (3) 373.15 K
- (4) 273.15 K

ANS: 4

EXPLANATION:

- The freezing point is the temperature at which a liquid turns into a solid.
- According to the Kelvin scale, the freezing point of water is 273.15K and the boiling point is 373.15K.
- According to the Fahrenheit scale, the freezing point of water is 32° F and the boiling point is 212 ° F.
- According to the Celsius scale, the freezing point of water is 0° C and the boiling point is 100°C.

If $15 \times 71 = 84$, $92 \times 23 = 57$,

80. $37 \times 44 = 84$, then $54 \times 32 = ?$

- A) 54
- B) 51
- C) 91



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D)87

ANS: B

EXPLANATION:

$$15 \times 71 \rightarrow (7 + 1) ; (5 - 1) = 84$$

$$92 \times 23 \rightarrow (2 + 3) (9 - 2) = 57$$

$$37 \times 44 = (4 + 4) (7 - 3) = 84$$

$$\therefore 54 \times 32 = (3 + 2) (5 - 4) = 51$$

81. Where are the Summer Olympics Games going to be held in 2021?

(1) Pyeong Chang

(2) Tokyo

(3) Beijing

(4) Paris

ANS: 2

EXPLANATION:

- The 2020 Summer Olympics was an international multi sports event held from 23 July to 8 August 2021 Tokyo, Japan.
- India finished 48th on the medal tally in Tokyo, its highest ranking in over four decades.
- The 2024 Summer Olympics games was held in Paris, France.
- The 2022 Winter Olympic Games was held in Beijing, China.
- The 2026 winter olympic games will be held in Italy.

82. Read the given statement(s) 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 conclusions logically follow(s) from the statement(s).

Statements:

I. All D are A.

II. No A is C.



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Conclusions:

I. No D is C.

II. Some Care D.

1) Neither conclusion follows

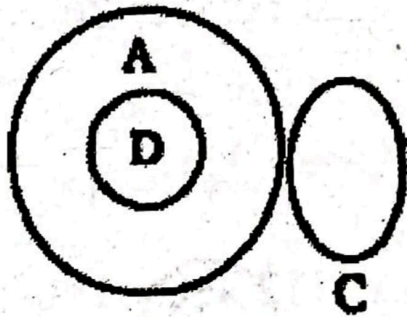
(2) Both conclusion I and II follows

(3) Only conclusion II follows

(4) Only conclusion I follows

ANS: 4

EXPLANATION:



Conclusion: I: No 'D' is C: (✓)

II: Some 'C' are 'D': (✗)

83. When the integer metre is divided by 8, the remainder is 5. What is the remainder if 7 m is divided by 8?

(1) 6

(2) 3

(3) 4

(4) 5

ANS: 2

EXPLANATION:



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$$m = 8k + 57m = 7(8k + 5)$$

$$= 56k + 35$$

Remainder obtained by
dividing $7m$ by $8 =$ Remainder
obtained by dividing 35 by $8 = 3$

84. In a certain code, P is coded as 17 and TMR is coded as 54. How will NARESH be written as in that code?

- (1) 78
- (2) 65
- (3) 71
- (4) 73

ANS: 3

EXPLANATION:

P = 17, Position of 'P' in
english alphabet + 1

20	13	18	
T	M	R	
↓	↓	↓	
21 +	14 +	19 =	54

14	1	18	5	19	8	
N	A	R	E	S	H	
↓	↓	↓	↓	↓	↓	
15 +	2 +	19 +	6 +	20 +	9 =	71



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85.If the letters of the word ADISNHPANRKARFACHTA RKYAR were written in reverse order, then which would be the third letter to the right of the ninth letter from the left?

- (1) R
- (2) N
- (3) A
- (4) K

ANS: 1

EXPLANATION:

when written in reverse order:

RAYKRATHCAF **R**AKRNAPHNSIDA

9th letter
from left ↑
3rd letter
to the right of 'C' = R

86.Select the option that is related to the third letter-cluster in the same way as the second letter-cluster is related to the first letter-cluster.

COCK: FRFN:: HANG: ?

- (1) KDQJ
- (2) COBH
- (3) JCOI
- (4) IBOJ

Ans: 1



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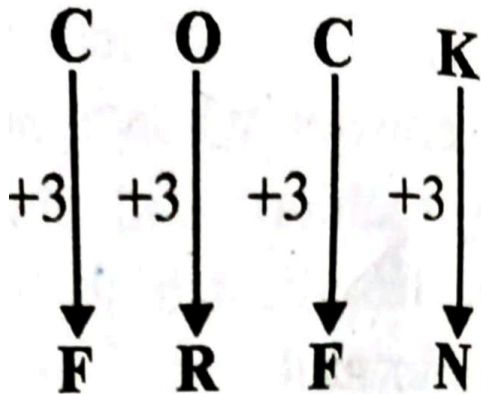


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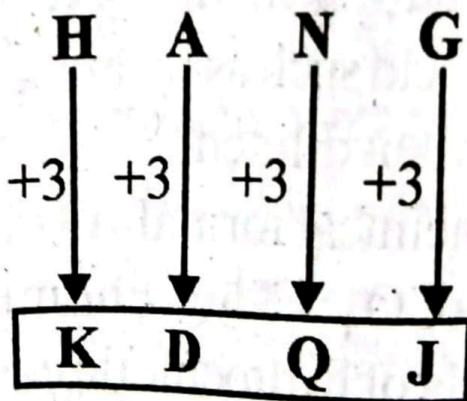


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Explanation:



Similarly,



87. In a class of 36 students, the number of boys are twice the number of girls. In the class, there are 13 boys before Reema whose position is 19th in the class. How many girls are there in the class after Reema?

- (1) 6
- (2) 12
- (3) 5
- (4) 10

Ans: 1



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Explanation:

Let number of boys in class = $2x$

\therefore number of girls in class = x

$\therefore x + 2x = 36, x = 12$

\therefore Number of girls = 12,

Number of boys = 24

13 boys & 5 girls 19th

Reema

\therefore Total number of girls = 12

\therefore Number of girls in the class
after Reema $12 - (5+1) = 6$

88. Select the option that is related to the third term in the same way as the second term is related to the first term.

Entomology: Insects::

Etymology: ?

- (1) Words
- (2) Books
- (3) Satellites
- (4) Plants

Ans: 1

Explanation: Entomology is the study of insects, Similarly Etymology is the study of the history of the world.

89. From among the given options. Identify the number that DOES NOT belong to the following series.



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2, 5, 14, 41, 122, 365, 1095

(1) 1095

(2) 41

(3) 122

(4) 365

Ans: 1

Explanation:

$$(2 \times 3) - 1 = 5$$

$$(5 \times 3) - 1 = 14$$

$$(14 \times 3) - 1 = 41$$

$$(41 \times 3) - 1 = 122$$

$$(122 \times 3) - 1 = 365$$

$$(365 \times 3) - 1 = 1094 \neq 1095:$$

Wrong number in the series

$$= 1095$$

90. Six friends are playing cards in a circular enclosure facing the centre. Subhash is sitting to the right of Pramod. There is one person sitting in between Umesh and Suresh. Praveen is sitting in between Subhash and Umesh and Praveen is second to the left of Alok. If Alok and Subhash



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mutually change their places, then who will be sitting second to the right of Praveen?

(1) Subhash

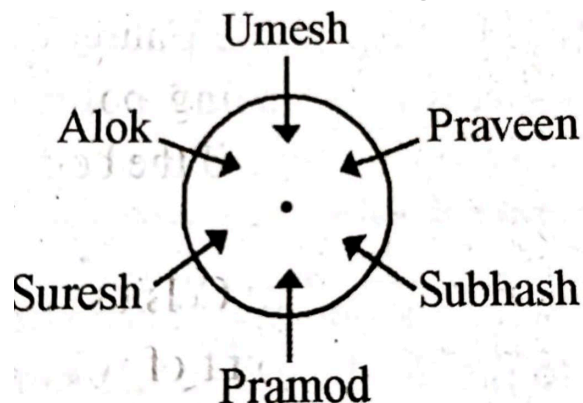
(2) Pramod

(3) Umesh

(4) Suresh

Ans: 1

Explanation: Sitting-arrangement:-Presently Alok is sitting second to the right of Parveen after Alok and Subhash mutually change their places, now Subhash will be second right of Parveen.



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

(1) 29

(2) 16

(3) 34

(4) 25

ANS: 1

EXPLANATION: 16, 34, 25 are natural numbers which are not Prime number but '29' is a Prime number.



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92. In a certain code. LITTLE is coded as 24, PARIS is coded as 23, BOX is coded as 12 and PIN is coded as 12. How will DONE be written as in that code?

(1) 22

(2) 27

(3) 29

(4) 38

ANS: 1

EXPLANATION:

(1) LITTLE \rightarrow 24 : $2 + 4 = 6 =$ Number of letters in LITTLE

PARTS \rightarrow 23, $2 + 3 = 5 =$ Number of letters in PARTS

BOX \rightarrow 12, $1 + 2 = 3 =$ Number of letters in BOX

PIN \rightarrow 12, $1 + 2 = 3 =$ Number of letters in PIN

DONE = Number of letters = 4

From option (1) 22 \rightarrow $2 + 2 = 4$

93. Read the given statement(s) 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 conclusions logically follow(s) from the statement(s).

Statements:

(1) All phones are pens.

(2) Some pens are pencils.

Conclusions:

I. Some phones are pencils.

II. Some pencils are phones.



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III. Some pencils are pens.

IV. Some pens are phones.

(1) Neither conclusion I nor II follows.

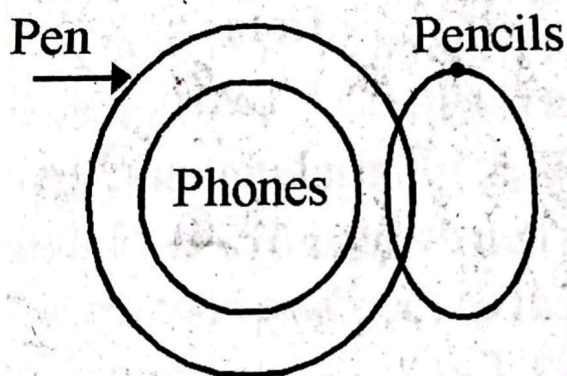
(2) Only conclusions II and III follow.

(3) Only conclusions I and II follow.

(4) Only conclusions III and IV follow.

ANS: 4

EXPLANATION:



Only conclusions III and (IV)
follows.

94. If 12 October 1997 was a Saturday, then what day was it on the same date in the year 2008?

(1) Saturday

(2) Thursday

(3) Monday



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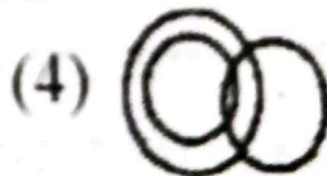
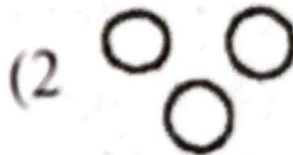
(4) Sunday

ANS: 1

EXPLANATION:

On 12 october 1997, saturday
 from 1998 to 2008 these are 11
 years of which 3 No. of odd
 days = $8 + 3 \times 2$
 $= 14 = 7 \times 2 + 0 = '0'$ odd day
 \therefore 12 october 2008, will be
 saturday.

95. Select the Venn diagram that best represents the relationship between the following classes. Sports, Cricket, Cockroach.



A)1

B)2

C)3

D)4

ANS: C

EXPLANATION:



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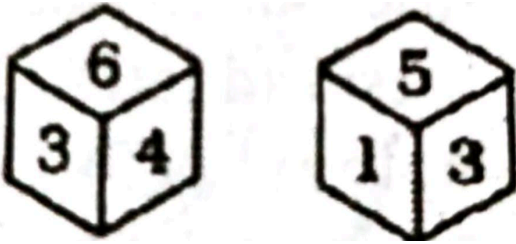
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(1) 3

(2) 6

(3) 4

(4) 2

ANS: 3

EXPLANATION:

Since in both side '3' is common in both, So we move in both dice from '3' in clock wise directions as:

dice-I: 3, 6, 4

dice-II: 3, 1, 5

6 ← Opposite → 1

4 ← Opposite → 5

98. Which of the following country has launched "Hope Probe" mission to Mars in July 2020?

(1) India

(2) France



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(3) China

(4) UAE

ANS: 4

EXPLANATION:

- **The Hope Probe mission, also known as the Emirates Mars Mission (EMM) or Al-Amal, is a scientific exploration of Mars by the United Arab Emirates (UAE).**
- **With this, the UAE has become the world's fifth country after the US, Russia, China, the EU, and India, to reach the Martian orbit.**

99. Who is appointed as Asian Cricket Council President in Feb, 2021?

(1) Rajiv Shukla

(2) Anurag Thakur

(3) Saurav Ganguly

(4) Jay Shah

ANS: 4

EXPLANATION:

- **Jay Shah was appointed as the President of the Asian Cricket Council (ACC) in 2021.**
- **Shah, becomes the youngest to take charge of the post, taking over the reins from Bangladesh Cricket Boards (BCB) chief Nazmul Hussain.**
- **ACC President 2025
Shammi Silva**



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100. In a certain code language, 'Bird is animal' is written as '# mr so'. 'Parrot is Bird' is written as 'so # @', 'is Parrot animal' is written as 'mr @ #'. What is the code for 'animal' in that code language?

- (1) @
- (2) so
- (3) mr
- (4) #

ANS: 3

EXPLANATION:

Bird [is] (animal)
→ [#] (mr) so

Parrot [is] Bird → so [#] @
[is] parrot (animal)
→ (mr) @ [#]

∴ From above coded language :
animal = mr



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