Bihar Jeevika (Common Subjects) MBT Based on 1st December 1st shift

Q.1 When was the Major Dhyan Chand Khel Ratna Award won by Karnam Malleswari?

A. 1994-95
B. 1992-93
C. 1993-94
D. 1991-92

Answer: A

Sol: The correct answer is: **(A) 1994-95**

Explanation:

Karnam Malleswari, an Indian weightlifter, won the **Major Dhyan Chand Khel Ratna Award** in the **1994-95** period. She was the first Indian woman to win an Olympic medal, achieving a bronze medal at the **2000 Sydney Olympics** in weightlifting.

Her victory was a milestone in Indian sports history, and her receipt of the **Khel Ratna** was in recognition of her excellence in weightlifting and her significant contribution to Indian sports.

Information Booster:

Key Points:

- **Named after Major Dhyan Chand**: The award is named in honor of **Major Dhyan Chand**, who is widely regarded as the greatest field hockey player in India. He was known for his extraordinary goal-scoring ability and skills, often called the **"Wizard of Hockey"**.
- **Award Criteria**: The Khel Ratna Award is given to athletes who have shown exceptional achievements in their respective sports. It is awarded for performance at international events like the **Olympics**, **World Championships**, **Asian Games**, and other global sporting competitions.
- **Annual Presentation**: The award is presented annually by the **President of India** on **National Sports Day**, which is celebrated on **August 29**, the birthday of Major Dhyan Chand.
- **Prize and Recognition**: The awardee receives a **medal**, a **certificate of merit**, and a **cash prize**. The cash reward has been steadily increasing over the years and currently stands at **₹25 lakh** (as of 2021).

Q.2 Who was the second Indian women footballer to win the Arjuna Award?

A. Oinam Bembem Devi
B. Aditi Chauhan
C. Bala Devi
D. Mithali Raj

Answer: A

Sol: **Correct Answer:** A. Oinam Bembem Devi

Explanation:

- Oinam Bembem Devi, known as the **"Durga of Indian Football"**, became the **second Indian woman footballer** to receive the **Arjuna Award in 2017**.
- The first Indian woman footballer to win the Arjuna Award was **Shanti Mullick in 1983**.

Information Booster:

- Bembem Devi captained the Indian women's national football team for several years.
- She played a key role in India's victory in the **SAFF Women's Championships**.
- She was also awarded the **Padma Shri in 2020** for her contribution to football.
- The Arjuna Award is given by the Government of India to recognize outstanding achievements in sports.
- Instituted in **1961**, it is one of the highest sporting honors in India.

Additional Knowledge:

- Aditi Chauhan: First Indian woman footballer to play professionally in England (West Ham United Ladies).
- Bala Devi: First Indian woman to sign a professional football contract with a European club (Rangers FC, Scotland).
- Mithali Raj: Famous cricketer, received the Arjuna Award in cricket(2003).

Q.3 **The Pritzker Prize is awarded for the achievement in the field of _____.**

A. literature
B. music
C. mathematics
D. architecture

Answer: D

Sol: The correct answer is: **(d) architecture**

Explanation:

- The **Pritzker Architecture Prize** is considered the **highest honor in architecture**, often called the *"Nobel Prize of Architecture"*.
- It was established in **1979** by the **Pritzker family of Chicago** through their Hyatt Foundation.
- Awarded annually to a living architect whose work demonstrates **talent, vision, and commitment to humanity through architecture**.

Information Booster:

- First awarded in **1979** to **Philip Johnson**.
- Prize includes **$100,000 grant and a bronze medallion**.
- 2022 Winner: **Diébédo Francis Kéré** (first African laureate, from Burkina Faso).
- 2023 Winner: **David Chipperfield** (UK architect).
- Venue often changes but is usually hosted at **international architectural landmarks**.

Additional Knowledge:

- **Literature** – Nobel Prize, Jnanpith Award, Booker Prize.
- **Music** – Grammy Awards, Sangeet Natak Akademi Award.
- **Mathematics** – Fields Medal, Abel Prize.

Q.4 **Which scheme has been launched by the union government for promoting solar farming?**

A. Krishi Urja Suraksha evam Uttaan Mahaabhiyan
B. Kisan Urja Suraksha evam Utthaam Mahaabhiyan
C. Kisan Urja Suraksha evam Uttaan Mahaabhiyan
D. Kusum Uija Suraksha evam Uttaan Mahhabhiyan

Answer: C

Sol: The correct answer is (c) **Kisan Urja Suraksha evam Uttaan Mahaabhiyan (KUSUM)**.

- The **KUSUM scheme** was launched in **2019** by the Union Government.
- Objective: To promote **solar energy** in agriculture by providing farmers with solar pumps and grid-connected renewable power.
- Helps reduce dependence on diesel and electricity for irrigation.

Information Booster:

• Implemented by the **Ministry of New and Renewable Energy (MNRE)**.
• Provides **subsidy for solar pumps** and power plants to farmers.
• Encourages **solarization of agriculture feeders**.
• Reduces farmers' electricity bills and increases income by selling surplus power.
• Supports India's target of **net-zero emissions by 2070**.

Additional Knowledge:

• KUSUM has three components:
– A: Solar pumps and decentralized power plants.
– B: Standalone off-grid pumps.
– C: Solarization of grid-connected pumps.
• Helps achieve India's **renewable energy capacity target (500 GW by 2030)**.
• Farmers can earn additional income by selling excess electricity to the grid.
• Solar farming contributes to both **energy security and water-use efficiency**.

Q.5 **The Jawahar Rojgar Yojana was launched in 1989 with a motive to _____.**

A. train the daily wage workers to look for additional income
B. create housing opportunities for the needy rural labours
C. generate foreign investment for the needy rural labours
D. generate wage employment for the needy rural labours

Answer: D

Sol: **Correct Answer:** D

Explanation:

- The **Jawahar Rozgar Yojana (JRY)** was launched in **1989** by the Government of India.
- Its main objective was to **generate wage employment for unemployed and underemployed rural laborers**, especially below the poverty line.

Information Booster:

- JRY was launched by merging the **National Rural Employment Programme (NREP)** and **Rural Landless Employment Guarantee Programme (RLEGP)**.
- Implemented on a **cost-sharing basis (80:20)** between Centre and States.
- Focused on creating **durable community assets** like roads, wells, and irrigation facilities.
- Priority was given to SCs, STs, and women workers.
- Later, it was restructured into the **Jawahar Gram Samridhi Yojana (JGSY)** in 1999.

Q.6 **Aajeevika - National Rural Livelihoods Mission (NRLM) was launched by the Ministry of Rural Development (MoRD), Government of India in the year _____**

A. 2013
B. 2012
C. 2011
D. 2010

Answer: C

Sol: **The Correct Answer is C: 2011**
Explanation
The **National Rural Livelihoods Mission (NRLM)**, also known as **Aajeevika**, was launched by the **Ministry of Rural Development** in **2011**. Its main objective is to reduce poverty by promoting sustainable livelihoods among the rural poor, particularly through women's self-help groups.

Key Points

- Launched in **2011** by the Ministry of Rural Development.
- Focuses on **poverty reduction** through **self-help groups** (SHGs).
- Primarily targets **rural poor**, empowering them economically.
- Focuses on **financial inclusion** by facilitating access to financial services.
- Aims to enhance the capacity of **local institutions** and improve **access to markets** for rural women.

Q.7 **Who fought in the famous Battle of Chinhat with the Britishers during the Revolt of1857?**

A. Shah Mal
B. Maulvi Ahmadullah Shah
C. Maulana Azad
D. Rani Laxmiba

Answer: B

Sol: The correct answer is**: (b) Maulvi Ahmadullah Shah**
Explanation:
Maulvi Ahmadullah Shah played a prominent role during the **Revolt of 1857** and fought in the **Battle of Chinhat** against the Britishers. This battle took place near **Lucknow**, where **Maulvi Ahmadullah Shah** led a force of rebels against the British, showcasing his significant involvement in the **resistance movement**.

Information Booster:

• The **Revolt of 1857** is often referred to as the **First War of Independence**, with major battles fought in **Delhi**, **Lucknow**, **Kanpur**, and **Jhansi.**

• He was involved in **guerilla warfare** tactics, organizing **local forces** against the British.

• **Nana Sahib** and **Tatya Tope** also played key roles in **northern India.**

Additional Information:

• **Shah Mal –** A significant **1857 revolt leader,** contributing to the **resistance in Azamgarh and Ghazipur.**

• **Rani Laxmibai –** Famous for leading **Jhansi's defense and her role in Gwalior during the revolt.**

• **Tatya Tope –** Played a key role in **the rebellion in Kanpur and the Gwalior campaign.**

Q.8 Who was the first President of the Indian National Congress?

A. Gopal Krishna Gokhale
B. Womesh Chandra Bonnerjee
C. Firoz Shah Mehta
D. Dadabhai Naoroji

Answer: B

Sol: **The correct answer is:** (b) Womesh Chandra Bonnerjee

Explanation:

Womesh Chandra Bonnerjee was the **first President** of the **Indian National Congress (INC)**. He presided over the **first session of the INC in 1885**, which was held in **Bombay**.

Womesh Chandra Bonnerjee was a **lawyer and social reformer**.

Information Booster:

- The INC initially aimed for **constitutional reforms** within the British system, but later evolved to demand **complete independence**.
- The **INC** was founded by **Allan Octavian Hume**, who later became its General Secretary.
- **Dadabhai Naoroji**, though a key figure in the INC, was the **first Indian to be elected** to the **British Parliament** and served as its **President in 1886**.
- **Gopal Krishna Gokhale** – A prominent leader and mentor to Gandhi.

Q.9 Which event led to the formation of the Muslim League in 1906?

A. Montagu-Chelmsford Reforms
B. Partition of Bengal
C. Indian Councils Act
D. Simla Deputation

Answer: B

Sol: **The Correct Answer is B: Partition of Bengal**

Explanation

The **Partition of Bengal (1905)** by **Lord Curzon** created **religious divisions**, prompting the formation of the **All India Muslim League in 1906** to safeguard **Muslim interests**.

Key Points

- The **Muslim League** was established on **December 30, 1906**, in **Dhaka** to promote **Muslim political rights**.
- The **partition**, aimed at **administrative convenience**, led to **communal mobilization**.

Additional Information

- **Montagu-Chelmsford Reforms (1919)**: Introduced **dyarchy** and limited self-governance.
- **Indian Councils Act (1892)**: Expanded **legislative councils** but wasn't linked to the League's formation.
- **Simla Deputation (1906)**: Muslim leaders met **Lord Minto**, demanding **separate electorates**, strengthening the League's foundation.

Q.10 India and five ASEAN Countries namely Cambodia, Laos - PDR, Myanmar, Thailand and Vietnam form

A. BIMSTEC (Bay of Bengal Initiative for Multi -Sectoral Technical and Economic Cooperation)
B. SCO (Shanghai Co - Operation Organization)
C. Mekong Ganga Cooperation (MGC)
D. None of the above

Answer: C

Sol: The correct answer is (c) Mekong Ganga Cooperation (MGC)

- The **Mekong Ganga Cooperation (MGC)** is a regional cooperation initiative formed by **India** and **five ASEAN countries**: **Cambodia**, **Laos**, **Myanmar**, **Thailand**, and **Vietnam**. The MGC focuses on promoting **tourism, culture, education**, and **economic cooperation** among the member countries along the **Mekong and Ganga rivers**.
- **BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation)**: This involves countries bordering the **Bay of Bengal** (India, Bangladesh, Myanmar, Sri Lanka, Thailand, Bhutan, and Nepal)
- **SCO (Shanghai Cooperation Organization)** : An international organization primarily consisting of China, Russia, and several Central Asian countries, not related to ASEAN countries.

Information booster:

Organization	Members	Focus Area	Headquarters
BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation)	India, Bangladesh, Myanmar, Sri Lanka, Thailand, Bhutan, Nepal	Economic and technical cooperation in the Bay of Bengal region.	Dhaka, Bangladesh
SCO (Shanghai Cooperation Organization)	India, China, Russia, and Central Asian countries	Security, trade, economic, and political cooperation.	Beijing, China
SAARC (South Asian Association for Regional Cooperation)	India, Afghanistan, Bangladesh, Bhutan, Maldives, Nepal, Pakistan, Sri Lanka	Regional cooperation in South Asia for economic, social, and cultural development.	Kathmandu, Nepal
BRICS (Brazil, Russia, India, China, South Africa)	Brazil, Russia, India, China, South Africa	Economic cooperation, development, and global governance.	Johannesburg, South Africa
G20 (Group of Twenty)	19 countries + the European Union	Global economic governance and cooperation on issues like climate change, trade, etc.	Rome, Italy

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Q.11 Which one of the following is a member of BIMSTEC?

A. Sri Lanka
B. Vietnam
C. Laos
D. Cambodia

Answer: A

Sol: The correct answer is (a) **Sri Lanka**.
BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) is a regional organization comprising seven countries that lie in the Bay of Bengal region. **Sri Lanka** is one of its members.

Information Booster:

- **BIMSTEC Members**: The full members of BIMSTEC are **Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka**, and **Thailand**. Vietnam, Laos, and Cambodia are not part of BIMSTEC.
- **Purpose**: BIMSTEC was formed to enhance regional cooperation in sectors such as trade, technology, energy, transport, and the environment.
- **Significance**: The organization's objective is to create a regional economic integration zone and promote mutual cooperation among the member countries to improve economic development.

Q.12 **In which year did India join the Shanghai Cooperation Organisation?**

A. 2001
B. 2005
C. 2019
D. 2017

Answer: D

Sol: **The correct answer is (D) 2017.**
Explanation:

- **India** became a **full member** of the **Shanghai Cooperation Organisation (SCO)** in **2017**, after having been an observer since **2005**.

Information Booster:

- **SCO** was founded in **2001** with **China, Russia**, and **Central Asian nations**.
- **India** joined as an observer in **2005** and became a full member in **2017**.
- **Headquarters**: **Beijing, China**.
- **Primary Focus**: Security, military cooperation, and cultural exchanges.
- **Members**: **8** full members, including **India**.
- **Observer States**: Countries like **Pakistan**, **Mongolia**, and **Iran**.

Q.13 **In August 2025, Skyroot Aerospace Private Limited successfully conducted the first static test of the KALAM-1200 solid rocket motor. Where was this test conducted?**

A. Indian Space Research Centre (ISRO), Bengaluru
B. Satish Dhawan Space Centre, Sriharikota
C. Vikram Sarabhai Space Centre, Thiruvananthapuram
D. Space Applications Centre, Ahmedabad

Answer: B

Sol: **The correct answer is: (b) Satish Dhawan Space Centre, Sriharikota**

Explanation:

- The first static test of the KALAM-1200 solid rocket motor was successfully conducted at the Satish Dhawan Space Centre (SDSC) in Sriharikota, Andhra Pradesh (AP).
- This test is a significant step in the development of the Vikram-1 Launch Vehicle, which is being built by Skyroot Aerospace.
- The test validates crucial performance aspects such as thrust profile, combustion stability, and the thermal integrity of the nozzle.

Information Booster:

• The KALAM-1200 is a monolithic composite rocket motor with a length of 11 meters and a diameter of 1.7 meters.
• It uses Hydroxyl-Terminated Polybutadiene (HTPB) based solid propellant, generating up to 1200 kN of peak thrust.
• The motor is named after Dr. A.P.J. Abdul Kalam, honoring his contributions to India's space and missile programs.
• The Vikram-1 Launch Vehicle is designed to provide fast, on-demand access to Low Earth Orbit (LEO) for small satellites.
• The test aligns with the Indian Space Policy 2023, which encourages the participation of private companies in the Indian space sector.

Q.14 **How will BharatGen AI benefit users across India by June 2026?**

A. By limiting AI interaction to a few major languages
B. By enabling users to interact with AI in their native language
C. By focusing only on urban users
D. By providing AI services in English and Hindi only

Answer: B

Sol: The correct answer is: **(b) By enabling users to interact with AI in their native language**

Explanation:

· By **June 2026**, **BharatGen AI** will allow users across India to interact with AI-powered services in their **native languages**, regardless of their linguistic background.

· This will make it easier for people in rural areas and those who speak regional languages to access AI tools, government resources, and educational content.

Information Booster:

· Users will be able to engage with **government portals**, **educational content**, and other **public resources** in their **mother tongues**, making digital services more inclusive.

· This initiative promotes **digital inclusivity**, ensuring that language is not a barrier to participating in the digital economy.

Q.15 **In July 2023, which of the following organisations conducted the first test on an intermediate configuration of a semi-cryogenic engine, known as the Power Head Test Article (PHTA)?**

A. DRDO
B. ISRO
C. B.A.R.C.
D. I.I.R.S.

Answer: B

Sol: The correct answer is (b) ISRO

Explanation:

• In **July 2023**, **ISRO (Indian Space Research Organisation)** conducted the first test on an intermediate configuration of a **semi-cryogenic engine**, known as the **Power Head Test Article (PHTA)**.

• The test was a significant milestone in ISRO's efforts to develop **semi-cryogenic propulsion technology**, which is expected to enhance the performance of future launch vehicles.

• The **PHTA test** is part of ISRO's preparations for the development of advanced rockets for carrying heavier payloads into space.

Information Booster:

• The **semi-cryogenic engine** is a combination of **liquid oxygen (LOX)** and **kerosene** as propellants, offering greater efficiency than the existing cryogenic engines.

• This development is part of **ISRO's GSLV Mk III** and future launch vehicle projects.

• The test represents ISRO's push towards technological self-reliance in space exploration.

Additional Knowledge:

- **DRDO (Option a)**: The **Defence Research and Development Organisation** is involved in military technology and defense systems, not space propulsion.
- **B.A.R.C. (Option c)**: The **Bhabha Atomic Research Centre** is focused on nuclear research and energy development.
- **I.I.R.S. (Option d)**: The **Indian Institute of Remote Sensing** specializes in space-based Earth observation and remote sensing but is not involved in engine development.

Q.16 **NorthEast United became the first team in how many years to successfully defend the Durand Cup title?**

A. 10 years
B. 15 years
C. 20 years
D. 25 years

Answer: D

Sol: **The correct answer is (d) 25 years.**

Explanation:

· **NorthEast United FC** became the **first team in 25 years** to successfully defend the **Durand Cup** title.

· The last team to achieve this feat was in **2000**, marking **NorthEast United's victory** as a historic one.

Information Booster:

· **NorthEast United FC's** victory in the **Durand Cup 2025** highlighted their consistency and dominance in Indian football.

· The team's **balanced attack**, with six different players scoring, and **defensive stability** contributed significantly to their title defense.

· This achievement reflected the growing success of **NorthEast United** in Indian football, making them a formidable force in the sport.

· The **25-year gap** underscored the difficulty of defending such a prestigious title, showcasing the club's remarkable consistency and strength.

· Their win also boosted the visibility and reputation of football in **Northeast India**.

Q.17 **Who won the Quantbox Chennai Grand Masters 2025 chess tournament, becoming the first sole champion of the event and entering the world's Top 10 live rankings?**

A. Arjun Erigaisi
B. Jorden van Foreest
C. Vincent Keymer
D. Karthikeyan Murali

Answer: C

Sol: The correct answer is (c) Vincent Keymer.

- **German Grandmaster Vincent Keymer** won the **Quantbox Chennai Grand Masters 2025** with one round to spare.
- At just **20 years old**, he became the **first sole champion in the tournament's history** and entered the **world's Top 10 live ratings** for the first time.

Information Booster:

- Keymer secured the title after a **draw against Dutch GM Jorden van Foreest in Round 8**.
- All Round 8 games ended in **draws**, leaving 2nd and 3rd places undecided.
- **Indian GMs Arjun Erigaisi and Karthikeyan Murali** were still in contention for podium finishes.
- The tournament followed a **round-robin format**.

Additional Knowledge:

- In the **Challengers section**, **Indian GM Pranesh M** led with **6.5 points**, followed closely by **GM Abhimanyu Puranik** and **GM Leon Luke Mendonca**.
- The event reinforced Chennai's reputation as the **"Chess Capital of India"**, hosting global-level tournaments.
- Keymer's win is a milestone for European chess, showing **emerging talent beyond the traditional powerhouses**.

Q.18 **What is the next term in the given series?**
3, 2, 9, 8, 15, 14, ____

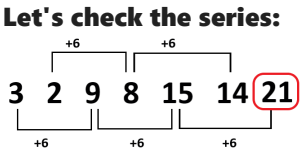
A. 20
B. 13
C. 21
D. 19

Answer: C

Sol: **Given:**

3, 2, 9, 8, 15, 14, ____

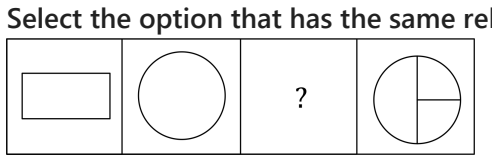
Let's check the series:

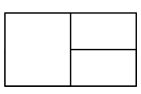


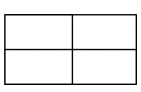
So, the next term is: **21**

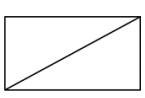
Thus, the correct option is: **(c)**

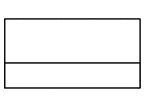
Q.19 Select the option that has the same relation to the fourth picture as the first picture does to the second picture.



A. 

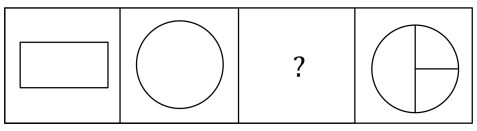
B. 

C. 

D. 

Answer: A

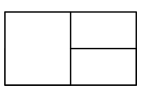
Sol: Given -



first empty rectangle related with empty circle,

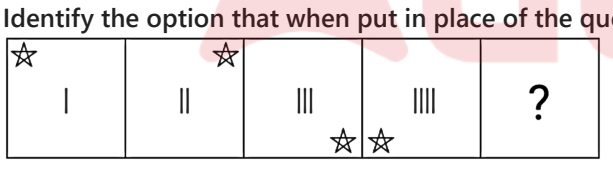
similarly,

rectangle with three lines related with circle with three lines.



option A is correct.

Q.20 Identify the option that when put in place of the question mark (?) will logically complete the series.



A. 

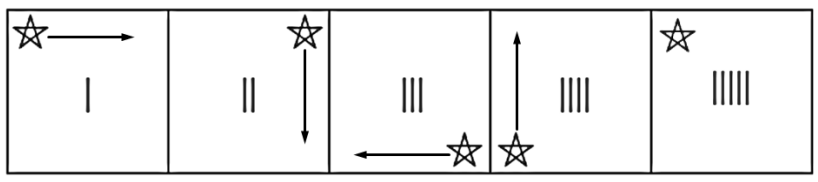
B. 

C. 

D. 

Answer: B

Sol: **Logic**: Star is moving at corner and middle lines are increasing + 1.



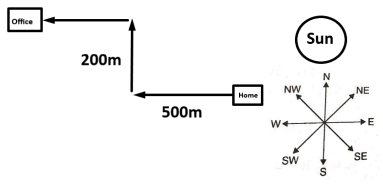
Thus, correct option is (b).

Q.21 **Leela starts for work in the morning. Her office is 2 km from home so she prefers to walk. She starts walking in the opposite direction of the sun from home, walks for 500 m and then takes a right turn and walks for 200 m. Then again, she takes a left and walks towards her office. In which direction from her home is her office?**

A. North
B. North-West
C. South
D. North-East

Answer: B

Sol: **Given:**
She starts walking in the opposite direction of the sun from home, walks for 500 m and then takes a right turn and walks for 200 m. Then again, she takes a left and walks towards her office.
From the given information direction will be:



So, her office is to the North-West of home.
Thus, the correct option is: (b)

Q.22 **If '÷' is replaced with '+', '×' is replaced with '-', '+' is replaced with '×' and '-' is replaced with '÷', then what will be the value of the given expression?**
8 + 5 × 54 – 9 ÷ 3 = ?

A. 33
B. 37
C. 44
D. 46

Answer: B

Sol: **Given**: 8 + 5 × 54 – 9 ÷ 3 = ?

Given Sign ÷ × + -

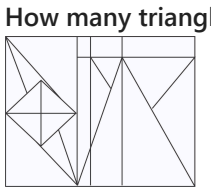
New Sign + - × ÷

Using **BODMAS** rule.

Operation preference wise	Symbol
Brackets	$[], , ()$
Orders, of	$(power), \sqrt{}(root), of$
Division	$\div$
Multiplication	$\times$
Addition	$+$
Subtraction	$-$

New equation: 8 × 5 - 54 ÷ 9 + 3 = ?
8 × 5 - 6 + 3 = ?
40 - 6 + 3 = ?
43 - 6 = ?
? = **37**
Thus, correct option is (b).

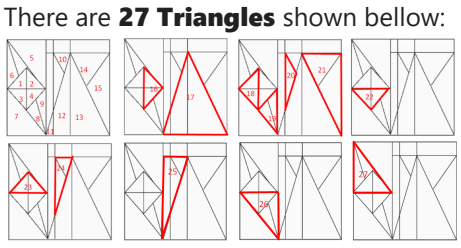
Q.23 How many triangles are there in the following figure?



A. 24
B. 23
C. 25
D. 27

Answer: D

Sol: There are **27 Triangles** shown bellow:



Thus, the correct option is:(d)

Q.24 Which of the following does NOT belong to this group?

A. Mauve
B. Purple
C. Green
D. Pole

A. B
B. A
C. C
D. D

Answer: D

Sol: **Given**:
A. Mauve B. Purple C. Green D. Pole
Mauve – a color (light purple shade)
Purple – a color
Green – a color
Pole – not a color.
So, **A, B** and **C** are all colors, while **D** is not.
Thus, correct option is (d).

Q.25 Which of the below does not belong to this group?

A. Broccoli
B. Carrot
C. Ridge gourd
D. Bitter gourd

A. A
B. C
C. D
D. B

Answer: D

Sol: **Given**:
A. Broccoli B. Carrot C. Ridge gourd D. Bitter gourd
Broccoli, Ridge gourd and **Bitter gourd** are all above-ground vegetables.
Carrot is the only root vegetable, i.e., grows underground.
So, **Carrot** does not belong the group.
Thus, correct option is (d).

Q.26 Which of the following does NOT belong to this group?

A. Banana
B. Litchi
C. Lettuce
D. Kiwi

A. A
B. C
C. B
D. D

Answer: B

Sol: **Banana**, **Litchi** and **Kiwi** are fruits.
Lettuce is a leafy vegetable.
So, **Lettuce** does not belong the group.
Thus, correct option is (b).

Q.27 The number of certain article sold by a shopkeeper on six consecutive days of a week is as shown below :

Day	Number of articles
Sunday	350
Monday	200
Tuesday	300
Wednesday	250
Thursday	120
Friday	150

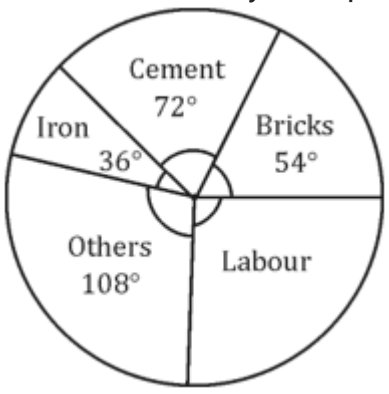
What is the range of the sale of the article during the above days ?

A. 30
B. 50
C. 180
D. 230

Answer: D

Sol: To find the range, we need to calculate the difference between the highest and lowest number of articles sold.
Highest number of articles sold: 350 (on Sunday) Lowest number of articles sold: 120 (on Thursday)
Range = Highest value - Lowest value = 350 - 120 = 230

Q.28 Following pie chart represents expenses on different items in construction of a room. If total expenses in construction of the room are Rs. 2,00,000, then how much money was expended on labour?

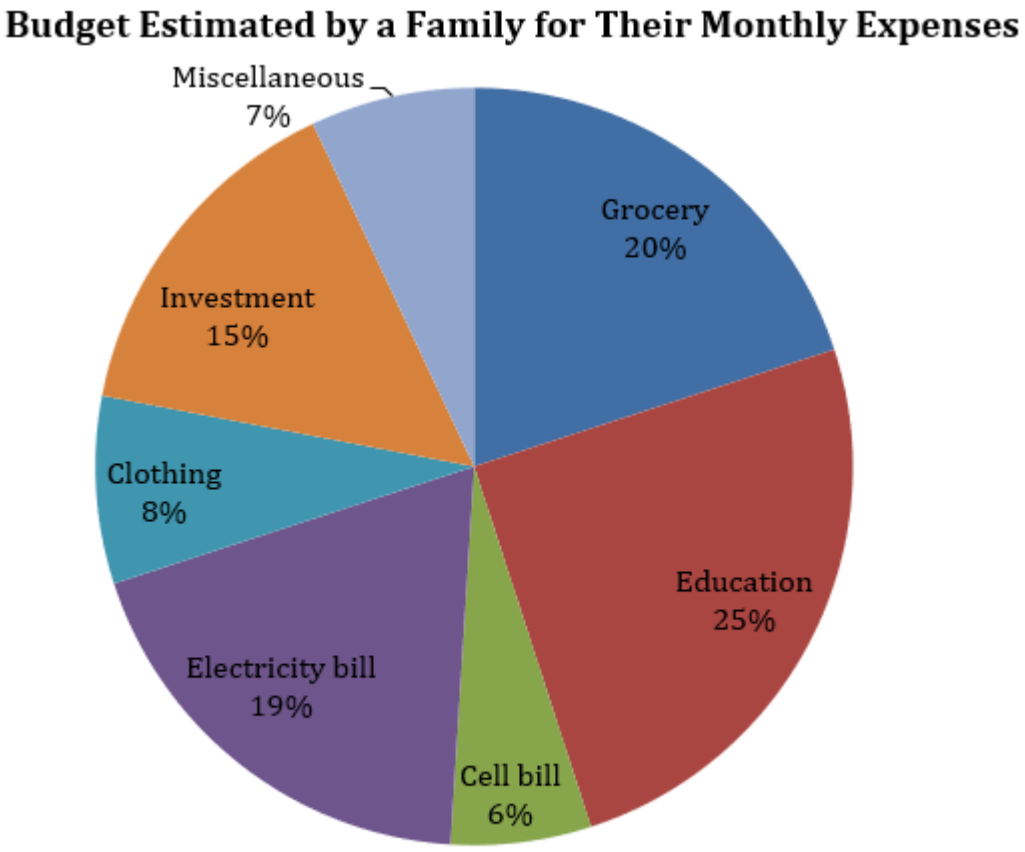


A. Rs. 10,000
B. Rs. 50,000
C. Rs. 60, 000
D. Rs. 40,000

Answer: B

Sol: Total angle in a pie chart = 360°
Angle of the labour component in the pie chart = 360 – 54 – 108 – 36 – 72 = 90°
Money expended on labour = (90/360) x 200000 = 50000
So, money expended on labour = 50,000 /-

Q.29 The family actually paid Rs. 4672 on grocery. What is the difference in the amount budgeted and spent on grocery? Observe the pie chart given below and answer the question.



Total Salary = Rs. 32000 per month

A. Rs. 1738
B. Rs. 1672
C. Rs. 467
D. None of these

Answer: D

Sol: Budget estimated for grocery
$= 3200 \times \frac{20}{100} = Rs.6400$
∴ actually paid = Rs. 4672
∴ Required difference = 6400 – 4672
= Rs. 1728

Q.30 The valuation of a house depreciates at the rate of 10% in a year, compared to its value at the beginning of that year. If the current value of the house is ₹40,00,000, then what will be the value of house after three years?

A. ₹29,16,000
B. ₹28,00,000
C. ₹29,06,000
D. ₹29,26,000

Answer: A

Sol: $40,00,000 \times \frac{9}{10} \times \frac{9}{10} \times \frac{9}{10} = 29,16,000$

Q.31 Jayanth purchased 2 kg of Jamun at the rate of rs. 100.00 per kg. His friend Kirana has contributed 3/10 of the money for it. How much Jamun she should get from Jayanth ?

A. 600 grams
B. 800 grams
C. 1000 grams
D. 300 grams

Answer: A

Sol: 1. Total cost of Jamun: 2 kg * Rs. 100/kg = Rs. 200
1. Kirana's contribution: 3/10 * Rs. 200 = Rs. 60
2. Proportion of Jamun for Kirana: Rs. 60 / Rs. 200 = 3/10
3. Weight of Jamun Kirana should get: 2 kg * 3/10 = 0.6 kg = 600 grams

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Q.32 **There are three numbers X, Y and Z. X is 40% less than Y and Z is 20% more than Y. Average of these numbers is 140. If X is increased by 50% and Y is increased by 20%, then find by what % Z must be increased so that their average is increased by 25%.**

A. $13\frac{1}{3}\%$

B. $17\frac{1}{2}\%$

C. $16\frac{2}{3}\%$

D. 15%

Answer: C

Sol: Let Y be 5 then X=3 and Z=6

$X + Y + Z = 140 \times 3 = 420$

$X = 420 \times \frac{3}{14} = 90$

$Y = 420 \times \frac{5}{14} = 150$

$Z = 420 \times \frac{6}{14} = 180$

After increment

$X = 90 \times 1.5 = 135$

$Y = 150 \times 1.2 = 180$

New total $= 140 \times 3 \times \frac{5}{4} = 525$

New value of $R = 525 - (135 + 180) = 210$

Required percentage $= \frac{210-180}{180} \times 100 = 16\frac{2}{3}\%$

Q.33 **A person invested a total sum of Rs. 51,600 in three different schemes of simple interest at the annual rate of 5 percent, 6 percent and 9 percent. At the end of one year he got same interest in all three schemes. What is the sum invested at the rate of 6 percent?**

A. Rs. 18400
B. Rs. 18000
C. Rs. 18500
D. Rs. 18200

Answer: B

Sol: $5\% \times a = 6\% \times b = 9\% \times c$

$\frac{5a}{100} = \frac{6b}{100} = \frac{9c}{100} \Rightarrow 5a = 6b = 9c$

$a : b : c = 54 : 45 : 30 = 129 \xrightarrow{\times 400} 51{,}600$

Sum invested at $6\% = 45 \times 400 = 18{,}000$

Q.34 **Rs. 12,000 becomes Rs. 15,972 in a certain period of time at the rate of 10% per annum on compound interest, compounding annually. Find the period of time.**

A. 1 year
B. 4 years
C. 2 years
D. 3 years

Answer: D

Sol:

$$A = P(1 + \frac{R}{100})$$
$$15972 = 12000(1 + \frac{R}{100})^n$$
$$\frac{15972}{12000} = (1 + \frac{10}{100})^n$$
$$\frac{1331}{1000} = (\frac{11}{10})^n$$
$$(\frac{11}{10})^3 = (\frac{11}{10})^n$$
$$n = 3 \text{ years}$$

Q.35 **A book was sold for Rs. 188.76 with a profit of 21%. If it were sold for Rs. 165.75, then what would have been the percentage of profit or loss?**

A. 6.25% profit
B. 5.5% profit
C. 8% loss
D. 5% loss

Answer: A

Sol: According to question,
121% – 188.76
100%= 156
Now C.P=156, S.P= 165.75
Profit %= $\frac{9.75\times100}{156}$ = = 6.25%

Q.36 **Mohan and Sohan invested Rs.3,000 and Rs.4,000 respectively in a property and after 6 month Sohan withdraws. If in the end of the year their profit is Rs.540, then what is the profit earned by Mohan?**

A. Rs.288
B. Rs.324
C. Rs.344
D. Rs.296

Answer: B

Sol:

	Mohan	:	Sohan
Principle	3000	:	4000
Time	12	:	6
Profit	3	:	2

Total profit (3+2) units = 540
Profit earned by the Mohan = $3 \times \frac{540}{5} = Rs.324$

Q.37 **Two trains running in the same direction at 110 km/h and 90 km/h completely pass one another in 54 sec. If the length of the first train is 130 metres, then find the length of the second train.**

A. 165 metre
B. 180 metre
C. 160 metre
D. 170 metre

Answer: D

Sol: Let the length of the first train = 130 metres

The length of the second train = y metres

Relative speed of the train = (110 – 90) = 20 km/h $= 20\times\frac{5}{18}$ m / sec

$= \frac{50}{9}\ m/sec$

Relative speed = $\frac{distance}{time}$

$\frac{50}{9} = \frac{130+y}{54}$

$50\times6 = 130 + y$

Length of the second train y = 170 metres

Q.38 A cyclist moving on a circular track of radius 140 m completes one revolution in 2 min. What is the average speed of the cyclist?

A. $660\frac{m}{min}$

B. $440\frac{m}{min}$

C. $880\frac{m}{min}$

D. $550\frac{m}{min}$

Answer: B

Sol: Average speed of the train = $\frac{DISTACNCE}{TIME}$

$= \frac{2\pi r}{2min}$

$= \frac{2\times\frac{22}{7}\times140\ m}{2\ \ min}$

$= 440\frac{m}{min}$

Q.39 Direction : Statements I and II are given, followed by two conclusions/assumptions I and II. You have to consider the statements to be true even if they seem to be at variance from commonly known facts. You have to decide which of the given conclusions/assumptions, if any, followed from the given statements.

Statements :

I. The prime-minister will address the people at .

II. You are requested to take your seats before .

Assumptions:

I. If the people are not on their seat before 10 a.m. the function will not start.

II. The function will start as scheduled.

A. Assumption I is implicit.

B. Both Assumptions I and II are implicit.

C. Neither Assumption I nor Assumption II is implicit

D. Assumption II is implicit.

Answer: D

Sol: **Given:**

Statements :

I. The prime-minister will address the people at .

II. You are requested to take your seats before .

Assumptions:

I. If the people are not on their seat before 10 a.m. the function will not start. **Not implicit.** As it is not explicitly stated in the statements that the function cannot start without people seated before a certain time.

II. The function will start as scheduled. **Implicit.** As it indicates that the event will proceed as scheduled if the people are seated as requested.

So, Assumption II is implicit.

Thus, the correct option is: (d)

Q.40 A statement is given followed by two assumptions numbered I and II. You have to assume everything in the statement to be true and decide which of the given assumptions is/are implicit in the statement.

Statement:

Please register for the event latest by 21 April to collect free passes. Passes will not be issued without valid address proof.

Assumptions:
I. Voter ID card is a valid address proof.
II. Passes can be purchased at the venue.

A. Only assumption I is implicit
B. Both assumptions I and II are implicit
C. Neither assumption I nor II is implicit
D. Only assumption II is implicit

Answer: C

Sol: **Statement:** "Please register for the event latest by 21 April to collect free passes. Passes will not be issued without valid address proof."
Assumptions:

Assumption I: Voter ID card is a valid address proof.

· The statement only mentions the need for a valid address proof but does not specify which types of documents are considered valid. While a Voter ID could potentially be a valid address proof, this is not explicitly stated or implied. Therefore, we cannot assume that a Voter ID card is implicitly accepted as valid address proof.

· Assumption I is not implicit.

Assumption II: Passes can be purchased at the venue.

· The statement mentions that passes are available for free if registered by a specific date, but it does not imply that passes can also be purchased at the venue. There is no indication that passes are available for sale at all.

· Assumption II is also not implicit.

Conclusion: Neither of the assumptions is implicit based on the given statement.

Correct answer is C) Neither assumption I nor II is implicit.

Q.41 **Identify the correct ascending order arrangement of different memory device in terms of their accessing order?**

A. DRAM<ROM<Cache
B. Cache < DRAM < ROM
C. ROM < DRAM < Cache
D. DRAM < Cache < ROM

Answer: C

Sol: Memory devices are often arranged in terms of their speed and access time. The fastest memory is typically Cache, followed by DRAM, and then ROM, which is generally slower in terms of data access. The ascending order of accessing speed is ROM, DRAM, and Cache.
Important Key Points:
1. ROM (Read-Only Memory): ROM is non-volatile memory that stores data permanently, but it has slower access times compared to DRAM and Cache.
2. DRAM (Dynamic Random-Access Memory): DRAM is volatile memory used for main memory in computers. It has slower access times compared to Cache, but faster than ROM.
3. Cache Memory: Cache is the fastest memory in a computer system, designed to provide fast access to frequently used data, much faster than both ROM and DRAM.

Q.42 **Which of the following is a computer that hosts a website on the internet?**

A. Web Page
B. Web Server
C. Search Engine
D. Web Browser

Answer: B

Sol: A **web server** is a special type of computer that **stores website files** (such as HTML, CSS, images, scripts) and **delivers them** to users over the internet. When someone types a website address in a browser, the request is sent to the web server, which responds by sending back the required web page data.

Important Key Points:

1. A **web server** hosts one or more **websites** and makes them accessible via the **internet**.
2. Popular web servers include **Apache**, **Nginx**, and **Microsoft IIS**.
3. Web servers can handle multiple client requests simultaneously.

Knowledge Booster:

- A **web page** is a document or resource delivered by the web server—it is **hosted**, not the host.
- A **search engine** (like Google) helps find web pages but doesn't host them.
- A **web browser** (like Chrome or Firefox) is used to **view** web pages, not store or deliver them.

Q.43 **In MS Word 2010, under which Ribbon tab are the zoom in and zoom out buttons available?**

A. Layout
B. View
C. Design
D. Insert

Answer: B

Sol: In MS Word 2010, the "View" tab on the Ribbon menu contains the zoom in and zoom out buttons. These tools help the user adjust the document view for better readability and editing comfort without affecting the actual formatting or layout of the document.

Important Key Points:

1. **Location of Zoom Controls:** Zoom tools like "Zoom In," "Zoom Out," and "100%" are found under the "View" tab.
2. **Function of Zoom:** These buttons allow users to magnify or reduce the document display size without changing the content.
3. **View Tab Features:** Besides zoom, the View tab also includes options like print layout, web layout, and full-screen reading.
4. **User Experience:** It helps in better viewing and navigating through large documents.

Knowledge Booster:

· **Layout:** Used for page setup and formatting, not for zoom functions.
· **Design:** In newer versions, it manages themes and styles but doesn't include zoom controls.
· **Insert:** This tab is used to insert tables, pictures, shapes, etc., not for viewing adjustments.

Q.44 **Which of the following is not a function of an Operating System?**

A. Process Management
B. Memory Management
C. File Management
D. Input Data

Answer: D

Sol: **Input Data** is not a function of an operating system. While the operating system provides **input/output management** services and handles communication between hardware devices and applications, it does not directly perform the task of "inputting data." Data input is typically performed by **user applications**, **device drivers**, or **users themselves** through input devices.

Important Key Points:

1. **OS Role**: Operating system **manages** and **facilitates** data input rather than performing it
2. **Device Management**: OS handles input device drivers and communication protocols
3. **Application Interface**: Provides APIs for applications to receive input data
4. **Hardware Abstraction**: Creates abstraction layer between applications and input hardware
5. **Resource Coordination**: Manages which applications can access input devices
6. **System Calls**: Provides system calls for input operations but doesn't generate data
7. **Driver Management**: Loads and manages device drivers for input devices

Knowledge Booster:

· **Process Management** is a core OS function that includes **process scheduling**, **creation**, **termination**, **synchronization**, and **inter-process communication**. The OS manages multiple processes running simultaneously.

· **Memory Management** involves **memory allocation**, **deallocation**, **virtual memory**, **paging**, **segmentation**, and ensuring memory protection between processes.

• **File Management** includes **file creation**, **deletion**, **organization**, **access control**, **directory management**, and **file system maintenance**.

Q.45 **Which of the following is NOT a computer programming language?**

A. Python
B. Java
C. C++++
D. Swift

Answer: C

Sol: The correct answer is(**C) C++++**.

Explanation:

- **Python**, **Java**, and **Swift** are all **valid computer programming languages**.
- **C++++** is **not a real programming language**. It seems like a mix-up or a typographical error, likely confusing it with **C++**, which is a well-known programming language.

Information Booster

- **Python:** A high-level, general-purpose language known for its readability and versatility.
- **Java:** A versatile, object-oriented language used for a wide range of applications.
- **C++:** A powerful and efficient language often used for systems programming and game development.

Q.46 **An unsolicited e-mail message which is sent to many recipients at once is a**

A. Worm
B. Virus
C. Threat
D. Spam

Answer: D

Sol: **Spam emails** are unsolicited messages sent in bulk, often for advertising, phishing, or malware distribution. They flood inboxes and may pose security risks.

Important Key Points:

1. **Spam emails** can carry **phishing links**, leading to scams or malware downloads.
2. Many email services use **spam filters** to detect and block unwanted messages.
3. Some spam emails are **commercial promotions**, while others may be **malicious** attempts at fraud.

Knowledge Booster:

- **Worms** are self-replicating malware that spreads across networks but don't focus on email spamming.
- **Viruses** attach to files or programs, requiring user action to spread, unlike spam emails.
- **Threat** is a general term for cybersecurity risks but does not specifically describe unsolicited bulk emails.

Q.47 **Windows Defender is an example of which type of software?**

A. Antivirus / Security software
B. Operating system software
C. Application software
D. Word processing software

Answer: A

Sol: **Windows Defender** is a **security software** developed by Microsoft that provides **real-time protection** against viruses, malware, spyware, and other security threats. It is a built-in **antivirus tool** in Windows operating systems.

Important Key Points:

1. **Windows Defender** helps in **detecting and removing malicious software**.
2. It offers **firewall protection, virus scanning**, and **real-time monitoring**.
3. It is categorized under **Utility Software**, specifically **Security Utilities**.

Knowledge Booster:

• **Operating system software** – Example: **Windows 10**, not Defender.

• **Application software** – Used for productivity tasks like **MS Word**, **Excel**, etc.

• **Word processing software** – Specifically designed for **document creation** (e.g., MS Word).

Q.48 To add a website to your favorites in Google Chrome, which keyboard shortcut is used?

A. Ctrl + D
B. Ctrl + E
C. Ctrl + F
D. Ctrl + B

Answer: A

Sol: Pressing **Ctrl + D** in Google Chrome instantly opens the dialog box to **bookmark** the current page. This feature helps you save frequently visited websites so you can return to them easily without typing the URL again.

Important Key Points:

1. The shortcut **Ctrl + D** works across most modern browsers including Chrome, Firefox, and Edge.
2. Bookmarks (or favorites) are stored in the browser's memory and can be organized into folders.
3. You can access your saved bookmarks from the **Bookmarks Bar** or the **Bookmark Manager**.

Knowledge Booster:

- **Ctrl + E** moves the cursor to the address bar or search bar in some browsers, but not for bookmarking.
- **Ctrl + F** opens the **Find** tool used to search words on the current page.
- **Ctrl + B** typically opens the bookmarks sidebar in Firefox, but does not add a new bookmark.

Q.49 Which one of the following is NOT a component of the CPU?

A. Register
B. Arithmetic logic unit
C. Control unit
D. Motherboard

Answer: D

Sol: The **motherboard** is not a component of the CPU. The CPU (Central Processing Unit) consists of components like the **Arithmetic Logic Unit (ALU)**, **Control Unit (CU)**, and **Registers**, which work together to execute instructions and process data. The motherboard, on the other hand, is a separate hardware component that houses the CPU, memory, and other peripherals.

Important Key Points:

1. **Registers**: Small, high-speed storage locations inside the CPU used for temporary data storage during processing.
2. **Arithmetic Logic Unit (ALU)**: Performs arithmetic (addition, subtraction) and logical (AND, OR) operations.
3. **Control Unit (CU)**: Directs and coordinates the operations of the CPU, fetching and interpreting instructions.

Knowledge Booster:

- **Motherboard**: A circuit board that connects and integrates all computer components, including the CPU, RAM, storage devices, and input/output peripherals.
- The CPU is also known as the **processor** or the **brain of the computer**, as it handles most computational tasks.
- The CPU's functionality relies on the motherboard, which facilitates communication between the CPU and other components, but the motherboard itself is not part of the CPU.

Q.50 What feature of characters does OCR detect using light?

A. Size
B. Shape
C. Colour
D. All of the above

Answer: B

Sol: **OCR (Optical Character Recognition)** is a technology used to convert scanned images of text into machine-readable text. It uses a **light source (like a scanner)** to identify **the shape of each character**, which it then compares to a stored font/template library to recognize and convert it into digital text.

OCR does **not rely on size or color**, but rather on the **outline, curves, and straight lines** that make up the **shape** of each character.

Important Key Points:

1. **OCR works on character shapes**, not colors or sizes.
2. It uses **pattern recognition algorithms** to compare scanned characters with known fonts.
3. Often used in **digitizing printed books, forms, invoices, passports, etc.**
4. Works best on **clear, printed, standard fonts** (though handwritten OCR also exists).
5. OCR systems are often embedded in **scanners, mobile apps, banking systems**, etc.

Knowledge Booster:

· **Size** may vary depending on font or formatting but OCR algorithms scale and normalize this.
· **Color** is generally ignored; OCR systems typically convert input to **black-and-white** (binary image) to focus on shape.
· Some modern OCR tools use **AI and deep learning** for better accuracy, even in poor lighting or noisy backgrounds.
