

## AIC MT Sample Questions

**Directions (1-5):** Study the following information carefully and answer the question given below. Eight persons P, Q, R, S, T, U, V and W sit around a square table in such a way that four persons sit at the corner of the table and four persons sit at the middle of the table and all of them faces towards the centre of the table but not necessarily in the same order. R sits third to the left of T. P is not an immediate neighbour of R and T. U sits second to the right of P. S faces the one who sits immediate left of Q who sits at the corner of the table. V is adjacent to U.

**Q1. Who among the following person sits third to the right of Q?**

- (a) R
- (b) V
- (c) None of these
- (d) S
- (e) U

**Q2. Who among the following person sits to the immediate left of T?**

- (a) V
- (b) W
- (c) P
- (d) S
- (e) U

**Q3. Who among the following person sits second to the left of P?**

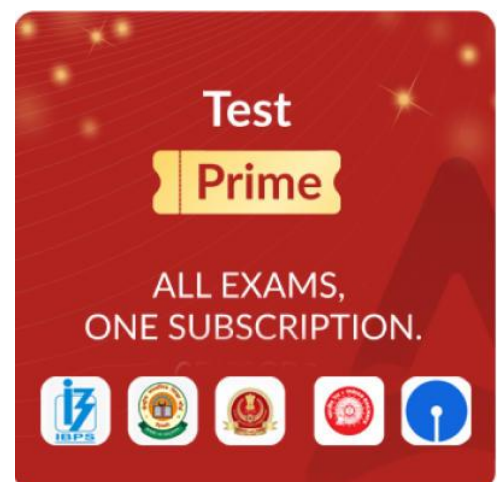
- (a) S
- (b) Q
- (c) V
- (d) T
- (e) W

**Q4. Who among the following person sits opposite to R?**

- (a) U
- (b) V
- (c) None of these
- (d) W
- (e) S


**Q5. What is the position of R with respect to W?**

- (a) Immediate right
- (b) 2<sup>nd</sup> to the left
- (c) 3<sup>rd</sup> to the left
- (d) 2<sup>nd</sup> to the right
- (e) Immediate left



Test  
Prime

ALL EXAMS,  
ONE SUBSCRIPTION.



**Directions (6-10):** Study the following information carefully and answer the questions given below.

**In a certain code language: -**

“Daily morning routine walks” is coded as “li og im ku”

“Morning walks healthy food” is coded as “og ka sx ku”

“Daily morning healthy talks” is coded as “li og pc sx”

“Healthy food and talks” is coded as “sx pc lf ka”

**Q6. What is the code for the word "walks"?**

- (a) ku
- (b) li
- (c) og
- (d) sx
- (e) Can't be determined

**Q7. What is the code for the words "Morning routine"?**

- (a) im ka
- (b) og pc
- (c) og im
- (d) ku im
- (e) Can't be determined

**Q8. What is the code for the word "Daily"?**

- (a) im
- (b) og
- (c) pc
- (d) li
- (e) Can't be determined

**Q9. What is the code for the words "Healthy food"?**

- (a) ka lf
- (b) sx ka
- (c) lf sx
- (d) pg sx
- (e) Can't be determined

**Q10. What may be the code for the words "Good talks"?**

- (a) pc sx
- (b) ka og
- (c) ku pc
- (d) lf pc
- (e) mn pc

**Q11. In the given number “ 753186429” if the digits at the even position are removed then the remaining digits are arranged in ascending order from right to left then what is the sum of the digits which are second from both the ends?**

- (a) 6
- (b) 7
- (c) 9
- (d) 12
- (e) 8

**Directions (12-13): Study the following information carefully and answer the questions given below.**

Seven persons deposit different amount in a bank. A deposit more than E but less than D. Two persons deposit between A and B who deposits less than E. C deposits more than F who deposits less than B. D doesn't deposit the highest amount. C deposits Rs. 5000 more than E but less than G.

**Q12. How many persons deposit more amount than B?**

- (a) Four
- (b) Three
- (c) Five
- (d) Two
- (e) One

**Q13. If E deposits Rs. 20,000, then what will be the amount deposits by C?**

- (a) Rs. 21,000
- (b) Rs. 23,000
- (c) Rs. 30,000
- (d) Rs. 25,000
- (e) Rs. 22,000

**Direction (14-15): In the following questions assuming the given statement to be true, find which of the conclusion(s) among given conclusions is/are definitely true and then give your answers accordingly.**

**Q14. Statements:**  $Y > U = H \geq K = C \geq D < S = T \leq Y$

**Conclusions:** I.  $U > S$  II.  $T \geq H$

- (a) Either I or II is true
- (b) Neither I nor II is true
- (c) Both I and II are true
- (d) Only II is true
- (e) Only I is true

**Q15. Statements:**  $Z > N \geq D < M, F > D, O = M > T$

**Conclusions:** I.  $N > T$  II.  $F < Z$

- (a) Neither I nor II is true
- (b) Either I or II is true
- (c) Both I and II are true
- (d) Only I is true
- (e) Only II is true

**Q16. Which generation of computers was the first to use integrated circuits (ICs) for processing?**

- (a) Second
- (b) Third
- (c) First
- (d) Fourth
- (e) None of the above

**Q17. Which of the following options should be pressed to reply to an email in Gmail?**

- (a) Forward
- (b) Reply
- (c) Delete
- (d) Archive
- (e) None of the above

**Q18. In MS Excel 365, a group of adjacent cells is referred to as a \_\_\_\_\_.**

- (a) Cell Address
- (b) Range
- (c) Formula
- (d) Reference
- (e) None of the above

**Q19. \_\_\_\_\_ is a cloud-based storage solution that allows users to store, manage, and access data over the internet rather than on local storage devices.**

- (a) Solid-State Drive (SSD)
- (b) Google Drive
- (c) USB Hard Drive
- (d) Network Attached Storage (NAS)
- (e) None of the above

**Q20. Which of the following statements about the Navigation Pane in Windows Explorer is incorrect?**

- (a) The Navigation Pane allows you to access various folders and drives.
- (b) You can hide or show the Navigation Pane through the View tab.
- (c) The Quick Access area is part of the Navigation Pane.
- (d) The Navigation Pane is fixed and cannot be customized by the user.
- (e) None of the above

**Q21. Once \_\_\_\_\_ is installed on a computer, it collects personal information about users without their knowledge and sends it to third parties.**

- (a) worms
- (b) virus
- (c) spyware
- (d) adware
- (e) None of the above

**Q22. Which of the following keyboard shortcuts is used to open a new tab in most web browsers?**

- (a) Ctrl + W
- (b) Ctrl + T
- (c) Ctrl + R
- (d) Ctrl + Q
- (e) None of the above

**Q23. \_\_\_\_\_ is a device used to connect multiple devices on a network and operates at the Data Link layer of the OSI model.**

- (a) Hub
- (b) Bridge
- (c) Router
- (d) Gateway
- (e) None of the above

**Q24. \_\_\_\_\_ is the unique address assigned to each device on a network for identification and communication.**

- (a) Protocol
- (b) Domain Name
- (c) IP Address
- (d) Bandwidth
- (e) None of the above

**Q25. Which of the following font effects is not available in the MS Word 2010 font dialog box?**

- (a) Superscript
- (b) Subscript
- (c) Underline Style
- (d) 3D Rotation
- (e) None of the above

**Directions (26-30): Each question below has one blank, which is indicating that something has been omitted. Find out which word from options can be used to fill up the blank to make it meaningful.**

**Q26. She is known for her \_\_\_\_\_ in solving complex mathematical problems.**

- (a) recklessness
- (b) obliviousness
- (c) animosity
- (d) indifference
- (e) acuity

**Q27. The company's new policy is aimed at reducing \_\_\_\_\_ and improving work-life balance.**

- (a) productivity
- (b) profits
- (c) stress
- (d) commute
- (e) efficiency

**Q28. The new restaurant in town offers a \_\_\_\_\_ of cuisines from around the world.**

- (a) jumble
- (b) mishmash
- (c) medley
- (d) confusion
- (e) chaos

**Q29. The athlete had to withdraw from the race due to a/an \_\_\_\_\_ injury.**

- (a) casual
- (b) significant
- (c) frivolous
- (d) ridiculous
- (e) trivial

**Q30. The artist's latest great masterpiece has received \_\_\_\_\_ from art critics around the world.**

- (a) disapproval
- (b) contempt
- (c) criticism
- (d) admiration
- (e) disdain

**Directions (31-35): In the following questions, a sentence is divided into four parts. Choose the part of the sentence which may contain a grammatical error in it. If all the parts of the sentence are grammatically correct and contextually meaningful, choose option (e) i.e., "no error" as your answer choice.**

**Q31. On every hundred snake (A)/ births, there is at least one (B)/ variant with strange markings, (C)/ colours, or additional tails (D)/ no error (E).**

- (a) A
- (b) C
- (c) D
- (d) B
- (e) No error

**Q32. The spy was successful (A)/ beside his attempt to (B)/ conceal his true identity (C)/ from the enemy (D)/no error (E).**

- (a) B
- (b) D
- (c) A
- (d) C
- (e) No error

**Q33. He took pride in it (A)/ appearance and made sure to (B)/ wear clean, pressed, (C)/ and expensive clothes every day (D)/no error (E).**

- (a) D
- (b) C
- (c) B
- (d) A
- (e) No error

**Q34. A thorn from one (A)/ of the prickly bushes pushed (B)/ through the boy's shoe (C)/ and into his food (D)/no error (E).**

- (a) B
- (b) A
- (c) D
- (d) C
- (e) No error

**Q35. The removal of one kidney (A)/ is life-threatening since a (B)/ person can live a healthy life (C)/ with the remaining kidney(D)/ no error (E).**

- (a) C
- (b) A
- (c) B
- (d) D
- (e) No error

**Directions (36-40): In the question given below, some sentences/phrases are given which have to be arranged in a proper sequence to form a correct sentence grammatically and contextually. Select the option which best defines the proper sequence and arranges the sentence in an appropriate way.**

**Q36. was placed outside (A)/ in and out of the driveway (B)/ the school to (C)/ direct traffic turning (D)/ a police officer (E).**

- (a) DEABC
- (b) EACDB
- (c) No rearrangement possible
- (d) DECAB
- (e) CEDAB

**Q37. own our own (A)/ of us will ever own a mansion (B)/ many of us (C)/ home, but few (D)/ will one day (E).**

- (a) CEADB
- (b) DCABE
- (c) No rearrangement possible
- (d) BCADE
- (e) ACDBE

**Q38. the computer model (A)/ estimates this (B)/ year's sales to (C)/ match last year's sales (D)/by the 5th of July (E)**

- (a) DEABC
- (b) EDABC
- (c) No rearrangement possible
- (d) DECAB
- (e) CEDAB

**Q39. during the teacher's (A)/ deliberate our testing (B)/ goals for the school year (C)/ meeting, we were (D)/ asked to (E).**

- (a) CABDE
- (b) DCABE
- (c) No rearrangement possible
- (d) CDAEB
- (e) ADEBC

**Q40. me have is a fish, since (A)/ my mom will let (B)/ the only animal (C)/ that can bite or bark (D)/ she doesn't like pets (E).**

- (a) EABDC
- (b) CBAED
- (c) ADBCE
- (d) BACED
- (e) No rearrangement possible

**Q41. 42 men can do a piece of work in 30 days and 70 women can do a piece of work in 22 days. If with the same efficiency 36 men and 40 women can do another work in  $(n - 8)$  days and  $n$  days respectively. Find the value of  $n$ ?**

- (a) 78
- (b) 88
- (c) 80
- (d) 108
- (e) 128

**Q42. A and B purchased shares of a company in ratio 5 : 6 respectively for their monthly saving. If the company gave 40 shares to A and 56 shares to B as incentive, then the number of shares A and B had now is in the ratio of 4 : 5 . If each share cost is Rs. 60, then find the saving of B.**

- (a) Rs. 7200
- (b) Rs. 12000
- (c) Rs. 8640
- (d) Rs. 8440
- (e) Rs. 8840



**Q43.** In a 20 overs match, A team has scored runs at rate of 8 run/over in first five overs and at rate of 7 run/over in next 12 overs. If the team scored 56 runs in last three overs, then find overall run rate per over of the team in the match.

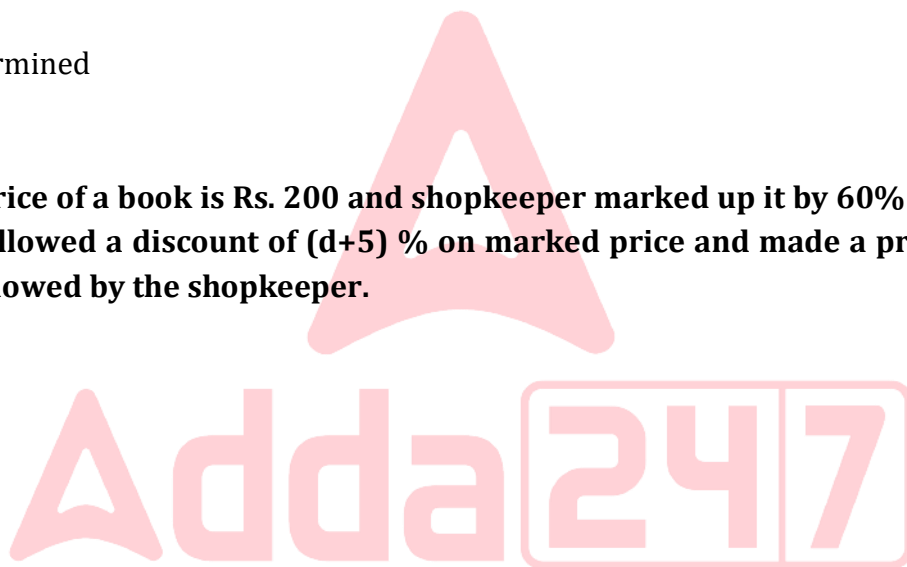
- (a) 9
- (b) 7.5
- (c) 8
- (d) 10
- (e) 12

**Q44.** The ratio of upstream speed of a boat to downstream speed is 2 : r and the total distance covered by the boat in still water in eight hours is equal to total distance travelled by the boat in upstream in ten hours. Then find value of 'r'.

- (a) 7
- (b) 1
- (c) 5
- (d) Can't be determined
- (e) 3

**Q45.** The cost price of a book is Rs. 200 and shopkeeper marked up it by 60% above cost price. If shopkeeper allowed a discount of (d+5) % on marked price and made a profit of 20%, then find discount allowed by the shopkeeper.

- (a) 15
- (b) 12
- (c) 20
- (d) 25
- (e) 5



**Directions (46-47):** In each of these questions, two equations (I) and (II) are given. You have to solve both the equations and give answer

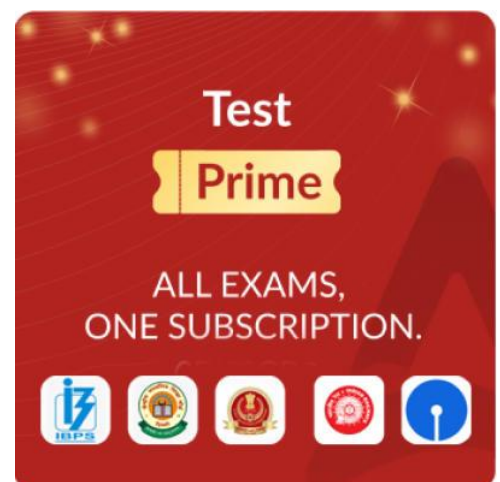
- (a) if  $x > y$
- (b) if  $x \geq y$
- (c) if  $x < y$
- (d) if  $x \leq y$
- (e) if  $x = y$  or no relation can be established between  $x$  and  $y$ .

**Q46.** I.  $x^2 - 13x + 36 = 0$

II.  $3y^2 - 19y + 30 = 0$

**Q47.** I.  $x = \sqrt{256}$

II.  $y - 4 = \sqrt{144}$



**Direction (48- 50):** What approximate value should come in the place of question (?) mark, (You are not expected to calculate the exact value).

**Q48.**  $20.94 \div 12.06 \times 15.99 \div 7.02 = ?$

- (a) 4
- (b) 8
- (c) 19
- (d) 16
- (e) 12

**Q49.**  $111.01 + 41.23 + (4.96)^2 + (2.09)^2 = ?$

- (a) 195
- (b) 162
- (c) 181
- (d) 170
- (e) 189

**Q50.**  $(15.99)^2 \div 8.03 - 8.97 \times 8.08 = ? - 56.89$

- (a) 21
- (b) 17
- (c) 26
- (d) 32
- (e) 27

**Direction (51-55):** The table given below shows total number of people (males + females) visited five (A, B, C, D and E) different restaurants. The table also shows the number of females visited out of total people visited in these five restaurants. Read the data carefully and answer the questions.

Restaurants	Total number of people (males + females) visited	Number of females visited
A	128	60
B	144	64
C	152	96
D	136	88
E	108	72

**Q51.** Find the total number of males visited in restaurants A, B and C together.

- (a) 208
- (b) 204
- (c) 212
- (d) 216
- (e) 192

**Q52. Total number of people visited in restaurant X are 36 more than total number of people visited in restaurant C and D together. If  $\frac{4}{9}$  th of total people visited in restaurant X are females, then find number of males visited in restaurant X.**

- (a) 180
- (b) 184
- (c) 192
- (d) 168
- (e) 172

**Q53. What percent of females visited in restaurant A with respect of the total number of people (male + female) visited in that restaurant (approximately).**

- (a) 41%
- (b) 43%
- (c) 47%
- (d) 49%
- (e) 51%

**Q54. If price of one veg thali in restaurant E is Rs. 48 and each people who visited restaurant E order one veg thali, then find the total revenue gets by restaurant**

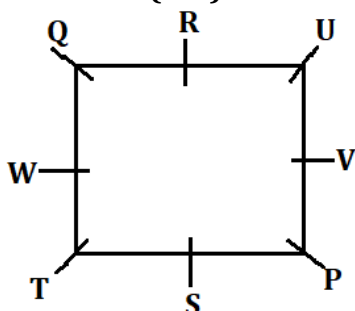
- (a) 5164 Rs.
- (b) 5184 Rs.
- (c) 5128 Rs.
- (d) 5132 Rs.
- (e) 5148 Rs.

**Q55. Total people (male + female) who visited restaurant B is what percent more than total people (male + female) who visited restaurant D (Approximate)?**

- (a) 14%
- (b) 11%
- (c) 2%
- (d) 6%
- (e) 8%

## Solutions

**Solutions (1-5): Final arrangement:**



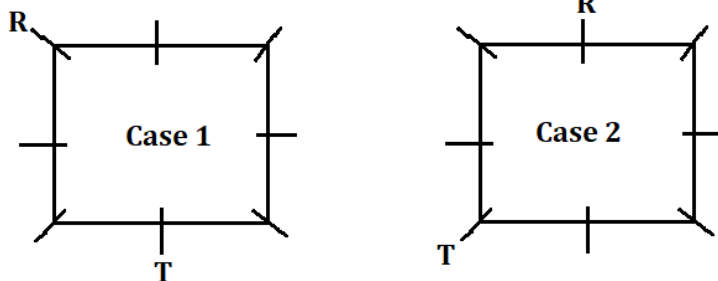
**Explanation:**

**Clues:**

R sits third to the left of T.

**Inference:**

Here, we get two possibilities as R may sit at the corner or at the middle of the side of Table.

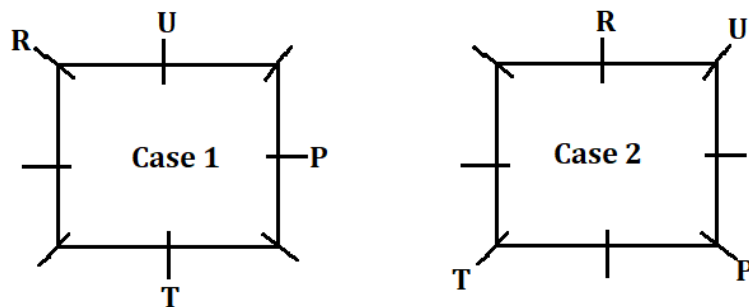


**Clues:**

P is not an immediate neighbour of R and T. U sits second to the right of P.

**Inference:**

Here, we get only one possible place of U that is immediate left of R in both the cases.

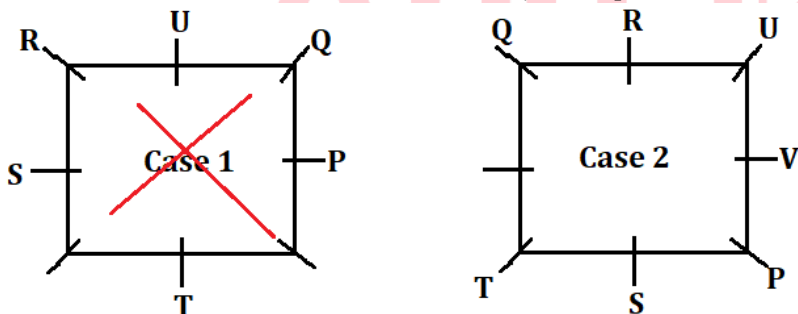


**Clues:**

S faces the one who sits immediate left of Q who sits at the corner of the table. V is adjacent to U.

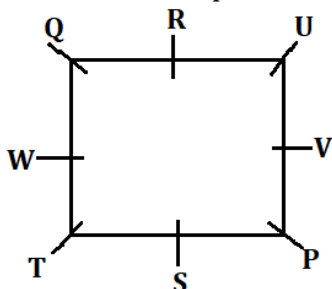
**Inference:**

So, case 1 is cancelled here because adjacent places of U are already occupied by R and Q.



**Inference:**

W is one of the persons so the final arrangement:



**S1. Ans.(d)**

**Sol.** S sits third to the right of Q.

**S2. Ans.(b)**

**Sol.** W sits to the immediate left of T.

**S3. Ans.(d)**

**Sol.** T sits second to the left of P.

**S4. Ans.(e)**

**Sol.** S sits opposite to R.

**S5. Ans.(b)**

**Sol.** R is 2<sup>nd</sup> to the left of W.

**Solutions (6-10):**

Words	Codes
Daily	Li
Morning	Og
Routine	Im
Walks	Ku
Healthy	Sx
Food	Ka
Talks	Pc
And	Lf

**S6. Ans.(a)**

**S7. Ans.(c)**

**S8. Ans.(d)**

**S9. Ans.(b)**

**S10. Ans.(e)**

**S11. Ans.(d)**

**Sol.** Given number-753186429

After rearrangement - 98743

Sum -  $8+4=12$

**Solution (12-13):**

$G > D > A > C(x+5000) > E(x) > B > F$

**S12. Ans.(c)**

**Sol.** Five persons deposit more amount than B.

**S13. Ans.(d)**

**Sol.** If E deposits Rs. 20,000 then Rs. 25000 will be the amount deposits by C because it is given that C deposit Rs.5000 more than E.

**S14. Ans.(a)**

**Sol.** I.  $U > S$  (False) II.  $T \geq H$  (False)

**S15. Ans.(a)**

**Sol.** I.  $N > T$  (False) II.  $F < Z$  (False)

**S16. Ans.(b)**

**Sol.** The **third generation** of computers was the first to use **integrated circuits (ICs)** for processing. This technological advancement marked a significant shift from the previous use of transistors in the second generation. Integrated circuits allowed for greater processing power, smaller size, increased reliability, and lower costs. Computers from this generation were much faster and more efficient, leading to the development of more advanced software and operating systems.

**Important Key Points:**

1. **Third Generation (1960s-1970s):** The **third generation** of computers introduced the use of **integrated circuits (ICs)**, which combined multiple transistors and other components on a single chip, drastically improving performance and reducing size.
2. **IC Technology:** The use of **ICs** allowed for the development of smaller, faster, and more efficient computers, revolutionizing the industry and laying the groundwork for modern computing.

**Knowledge Booster:**

- **First Generation:** Used **vacuum tubes** for processing, which were large, inefficient, and prone to overheating.
- **Second Generation:** Replaced vacuum tubes with **transistors**, which were smaller, faster, and more reliable but still required manual wiring.
- **Fourth Generation:** Introduced **microprocessors**, further increasing speed, reducing size, and enabling the development of personal computers (PCs).

**S17. Ans.(b)**

**Sol.** The **Reply** option is used to respond to an email directly in Gmail. When you press the "Reply" button, Gmail opens a new message window with the recipient's email address automatically populated and allows you to respond to the content of the original message. This function is essential for maintaining email conversations and quickly communicating with the sender of the email.

**Important Key Points:**

1. **Reply Function:** The **Reply** button enables users to **respond directly** to the sender of an email, continuing the conversation thread without manually entering the recipient's address.
2. **Efficiency in Communication:** This option is crucial for **quick email correspondence**, making it easier to keep track of discussions without creating a new email each time.

**Knowledge Booster:**

- **Forward:** This option allows you to send a received email to someone else without replying directly to the original sender.
- **Delete:** This option removes the email from your inbox and moves it to the Trash folder.
- **Archive:** This option removes the email from the inbox but saves it in the All Mail folder, allowing for future reference without cluttering the inbox.

### S18. Ans.(b)

**Sol.** In MS Excel 365, a **range** is a group of adjacent cells that you select and treat as a single unit. A range is identified by the cell references of its upper-left and lower-right corners, separated by a colon. For example, the range A1:C3 includes cells A1, A2, A3, B1, B2, B3, C1, C2, and C3.

#### Important Key Points:

1. **Range:** A **range** is a selection of two or more cells, which can be adjacent in rows, columns, or a block. Operations like formulas or formatting can be applied to a range.
2. They allow you to work more efficiently by enabling bulk operations rather than performing actions on individual cells.

#### Knowledge Booster:

- **Cell Address:** This refers to the unique identifier of a cell, such as **A1** for the first cell in column A and row 1.
- **Formula:** A formula in Excel is an expression used to calculate values within cells, starting with an **equal sign (=)**.
- **Reference:** A cell reference refers to the address of a single cell or a range of cells used in formulas to retrieve or manipulate data.

### S19. Ans.(b)

**Sol.** **Google Drive** is a **cloud-based storage solution** that allows users to store, manage, and access files over the internet. Unlike traditional storage devices like SSDs or USB drives, cloud storage provides users with the ability to access their data from anywhere with an internet connection. Google Drive also offers collaboration features, enabling multiple users to work on documents simultaneously. This makes it an ideal solution for both personal and professional file storage and sharing.

#### Important Key Points:

1. **Google Drive:** A **cloud storage service** that provides users with online access to their files. It offers various features like document sharing, real-time collaboration, and secure file storage.
2. **Accessibility:** Files stored on Google Drive can be accessed from any device with an internet connection, providing users with **flexibility** and ease of access.

#### Knowledge Booster:

- **Solid-State Drive (SSD):** A type of local storage device that uses flash memory to store data but does not offer internet-based access or sharing capabilities.
- **USB Hard Drive:** A portable storage device that connects via USB, used for storing files locally but lacks the cloud's remote access features.
- **Network Attached Storage (NAS):** A dedicated file storage device that operates over a **local network**, providing centralized storage but without the global accessibility of cloud storage solutions.

### S20. Ans.(d)

**Sol.** The statement **(d)** is incorrect because the **Navigation Pane** in Windows Explorer can be customized. Users can **show** or **hide** specific sections like **Quick Access**, **OneDrive**, and other folder shortcuts. You can also choose to expand or collapse folder groups and even adjust its size, offering flexibility for easier navigation.

### Important Key Points:

1. **Customizable Navigation Pane:** Users have the option to **customize** the Navigation Pane by showing or hiding certain sections or rearranging items for ease of access.
2. **Quick Access:** The **Quick Access** area is a part of the Navigation Pane, allowing users to pin frequently used folders for faster access.

### Knowledge Booster:

- **Access and Folders:** The **Navigation Pane** allows users to quickly access **folders, drives**, and other important locations in Windows Explorer.
- **View Tab Customization:** The **Navigation Pane** can be shown or hidden through the **View** tab in Windows Explorer, adding more flexibility to the user interface.

### S21. Ans.(c)

**Sol. Spyware** is a type of malicious software that secretly gathers personal information from the user's computer without their consent. Once installed, it monitors the user's activities, such as browsing habits, keystrokes, or even sensitive data like passwords, and sends this information to third parties for profit or exploitation. Spyware often operates in the background, unnoticed by the user, making it particularly dangerous for privacy and security.

### Important Key Points:

1. **Spyware:** This type of malware collects **personal data** without the user's knowledge or consent. It can track browsing activity, capture keystrokes, and steal sensitive information.
2. **Privacy Threat:** Spyware poses a significant risk to user **privacy** and **security**, as it can transmit sensitive information like passwords, financial details, or personal files to malicious actors.

### Knowledge Booster:

- **Worms:** Worms are self-replicating malware that spreads across networks without the need for user interaction. They do not typically collect personal data.
- **Virus:** A virus is a type of malware that spreads by attaching itself to files or programs. It can corrupt data or damage systems but is not designed to collect personal information.
- **Adware:** Adware generates revenue by displaying advertisements on the user's device, but unlike spyware, it is not specifically designed to collect sensitive information.

### S22. Ans.(b)

**Sol.** The keyboard shortcut **Ctrl + T** is used to open a new tab in most web browsers. This command allows users to quickly open a fresh tab while keeping other tabs intact, making it easier to multitask and manage multiple web pages simultaneously. It's a widely recognized shortcut across popular browsers like Chrome, Firefox, and Edge, providing convenience and improved navigation.

### Important Key Points:

1. **Ctrl + T:** This is a **universal shortcut** for opening a new tab across most web browsers. It enhances user productivity by allowing quick access to multiple websites within the same browser window.
2. **Browser Navigation:** The shortcut **simplifies navigation** and reduces the need to manually open new tabs from the browser menu, saving time during web browsing.

### Knowledge Booster:

- **Ctrl + W:** This shortcut is used to **close the current tab** in most web browsers.
- **Ctrl + R:** This shortcut is used to **refresh/reload** the current webpage in the browser.
- **Ctrl + Q:** In some browsers, this shortcut **quits** the browser entirely, closing all open tabs and windows.



### S23. Ans.(b)

**Sol.** A **Bridge** is a network device that connects multiple networks or segments and operates at the **Data Link layer (Layer 2)** of the OSI model. It is used to divide a large network into smaller, more manageable sections, helping to reduce traffic and improve performance. The bridge can filter and forward data based on the MAC addresses of the devices involved, ensuring efficient network communication between segments.

#### Important Key Points:

1. **Bridge Functionality:** A **bridge** filters and forwards data based on **MAC addresses**, making it ideal for managing network traffic by dividing large networks into smaller sections.
2. **OSI Model:** Operating at **Layer 2 (Data Link layer)** of the OSI model, the bridge is responsible for processing data frames and controlling access to the physical network.

#### Knowledge Booster:

- **Hub:** A hub is a basic network device that broadcasts data to all devices on a network, without any filtering, operating at **Layer 1 (Physical layer)**.
- **Router:** A router operates at **Layer 3 (Network layer)** of the OSI model and directs data packets between networks based on IP addresses.
- **Gateway:** A gateway operates at **multiple layers** and is used to connect different types of networks, translating between different network protocols, making it known as a **protocol converter**.

### S24. Ans.(c)

**Sol.** An **IP address** is a unique identifier assigned to each device on a network, allowing it to communicate with other devices. The IP address serves as the device's location on the network, enabling data to be sent to the correct recipient. IP addresses are essential for routing information between devices across the internet or any internal network. They come in two versions: **IPv4** and **IPv6**, with the latter allowing for a much larger range of addresses due to its longer format.

#### Important Key Points:

1. **IP Address:** An **Internet Protocol (IP) address** is the identifier for devices on a network. It ensures proper **data routing** between devices by specifying the destination for network traffic.
2. **IPv4 vs. IPv6:** The two versions of IP addresses are **IPv4**, which uses a 32-bit format, and **IPv6**, which uses a 128-bit format, allowing for a significantly larger address space.

#### Knowledge Booster:

- **Protocol:** A set of rules that defines how data is transmitted over a network, such as **HTTP** for web traffic or **FTP** for file transfers.
- **Domain Name:** A human-readable address, such as [www.example.com](http://www.example.com), that is mapped to an IP address via a **DNS server**.
- **Bandwidth:** The maximum rate of data transfer across a network connection, measured in **bps (bits per second)**, but not a unique identifier for devices.

### S25. Ans.(d)

**Sol.** **3D Rotation** is not an available font effect in the **MS Word 2010** font dialog box. While Word 2010 offers effects like **Superscript**, **Subscript**, and various **Underline Styles**, there is no option for applying 3D rotation to text in the font dialog box. 3D effects are typically found in graphic editing tools or advanced formatting, but not as a standard font option in Word 2010.

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**Important Key Points:**

1. **Font Dialog Box Features:** MS Word 2010 provides effects like **Superscript**, **Subscript**, and **Underline Styles** to enhance the appearance of text for mathematical expressions, formatting references, and other needs.
2. **3D Effects:** While Word offers several text styling options, **3D Rotation** is not included in the standard font dialog options. Such effects are generally available in more advanced graphic editing software.

**Knowledge Booster:**

- **Superscript:** Raises text slightly above the normal line, often used in mathematical expressions and references.
- **Subscript:** Lowers text slightly below the normal line, often used in chemical formulas and references.
- **Underline Style:** Allows users to choose different underline styles, such as **double underline** or **dotted underline**, to emphasize text.

**S26. Ans.(e)**

**Sol.** The correct word for the given blank is '**acuity**.' The word "acuity" refers to sharpness or keenness, particularly in senses or skills, which fits well in the context of solving complex mathematical problems. The other words do not fit the context of the sentence.

- (a) recklessness: a behavior or attitude that involves taking risks without considering the potential consequences.
- (b) obliviousness: not aware of or not concerned about what is happening around one.
- (c) animosity: strong hostility.
- (d) indifference: lack of interest, concern, or sympathy.

**S27. Ans.(c)**

**Sol.** The correct word for the given blank is '**stress**.' It means pressure or tension exerted on a material object. The word "stress" fits well in the context of a policy aimed at improving well-being and work-life balance for employees.

The other words do not fit the context of the sentence.

- (a) productivity: the effectiveness of productive effort, especially in industry, as measured in terms of the rate of output per unit of input.
- (b) profits: a financial gain, especially the difference between the amount earned and the amount spent in buying, operating, or producing something.
- (d) commute: travel some distance between one's home and place of work on a regular basis.
- (e) efficiency: the ability to do something or produce something without wasting materials, time, or energy.

**S28. Ans.(c)**

**Sol.** The correct word for the given blank is '**medley**.' The word "medley" refers to a mixture or combination of various things, which fits well in the context of offering a variety of cuisines.

The other words do not fit the context of the sentence.

- (a) jumble: an untidy and confused mixture of things.
- (b) mishmash: a confused mixture.
- (d) confusion: lack of understanding; uncertainty.
- (e) chaos: complete disorder and confusion.

**S29. Ans.(b)**

**Sol.** The correct word for the given blank is '**significant.**' It means sufficiently great or important to be worthy of attention; noteworthy. The word "significant" accurately describes an injury that is important or notable enough to affect the athlete's participation in the race.

The other words do not fit the context of the sentence.

(c) frivolous: not having any serious purpose or value.

(d) ridiculous: deserving or inviting derision or mockery; absurd.

(e) trivial: of little value or importance.

**S30. Ans.(d)**

**Sol.** The correct word for the given blank is '**admiration.**' It means respect and warm approval. The word "admiration" reflects a positive response and appreciation from the art critics for the masterpiece. The other words do not fit the context of the sentence.

(a) disapproval: a feeling or expression of strong disapproval or harsh criticism.

(b) contempt: the feeling that a person or a thing is beneath consideration, worthless, or deserving scorn.

(c) criticism: the expression of disapproval of someone or something based on perceived faults or mistakes.

(e) disdain: the feeling that someone or something is unworthy of one's consideration or respect.

**S31. Ans.(a)**

**Sol.** The error lies in **part (A)** of the sentence. The error in the original sentence is due to the incorrect use of the word "**hundred**" instead of "**hundredth.**"

"Hundred" is a numerical quantity, while "hundredth" indicates a numerical order. In the context of the sentence, "**hundredth**" is the appropriate word to use because it denotes that the variant snake occurs once in every 100 snakes, or every hundredth snake.

Hence, the correct sentence formed will be "In every hundred snake births, there is at least one variant with strange markings, colours, or additional tails."

**S32. Ans.(a)**

**Sol.** The error lies in **part (B)** of the sentence.

This phrase is incorrect because "**beside**" is not the appropriate preposition to use in this context. "Beside" implies that the spy was successful in addition to or alongside his attempt to conceal his identity, which doesn't make sense in the context of the sentence.

Thus, the correct preposition to use in this sentence is "**in**".

Hence, the correct sentence formed will be "The spy was successful in his attempt to conceal his true identity from the enemy."

**S33. Ans.(d)**

**Sol.** The error lies in **part (A)** of the sentence.

The pronoun "**it**" doesn't make sense in the context of the sentence as it doesn't refer to any specific person or thing that can take pride in their appearance. It's unclear what "it" is referring to in this sentence.

Thus, the correct pronoun to use in this sentence is "**his**".

Hence, the correct sentence formed will be "He took pride in his appearance and made sure to wear clean, pressed, and expensive clothes every day"

**S34. Ans.(c)**

**Sol.** The error lies in **part (D)** of the sentence.

This phrase is incorrect because "food" is misspelled and doesn't make sense in the context of the sentence. The correct word should be "foot," which is where the thorn went into.

Hence, the correct sentence formed will be "A thorn from one of the prickly bushes pushed through the boy's shoe and into his foot"

**S35. Ans.(c)**

**Sol.** The error lies in **part (B)** of the sentence.

The sentence contains a contradiction. The first part of the sentence states that the removal of one kidney is life-threatening, while the second part says that a person can live a healthy life with the remaining kidney.

Thus, "**not**" should be added before "life-threatening" so that the sentence correctly conveys the idea that a person can survive with one kidney, and that the removal of one kidney is not necessarily life-threatening.

Hence, the correct sentence formed will be "The removal of one kidney is not life-threatening since a person can live a healthy life with the remaining kidney."

**S36. Ans.(b)**

**Sol.** The correct sequence of the given phrases would be **EACDB**

Hence, the correct sentence formed will be: "A police officer was placed outside the school to direct traffic turning in and out of the driveway."

**S37. Ans.(a)**

**Sol.** The correct sequence of the given phrases would be **CEADB**.

Hence, the correct sentence formed will be: "Many of us will one day own our own home, but few of us will ever own a mansion."

**S38. Ans.(c)**

**Sol.** The sequence of the sentence is correct thus, option (c) is the correct answer, no rearrangement needed.

**S39. Ans.(e)**

**Sol.** The correct sequence of the given phrases would be **ADEBC**.

Hence, the correct sentence formed will be: "During the teacher's meeting, we were asked to deliberate our testing goals for the school year."

**S40. Ans.(b)**

**Sol.** The correct sequence of the given phrases would be **CBAED**. Hence, the correct sentence formed will be "The only animal my mom will let me have is a fish, since she doesn't like pets that can bite or bark."

**S41. Ans.(b)**

**Sol.** Let efficiency of a man and a woman be  $m$  unit/day and  $w$  unit/day

$$42m \times 30 = 70w \times 22$$

$$9m = 11w$$

ATQ,

$$36m \times (n - 8) = 40w \times n$$

$$36 \times \frac{11}{9}w \times (n - 8) = 40w \times n$$

$$44n - 352 = 40n$$

$$4n = 352$$

$$n = 88$$

**S42. Ans.(c)**

**Sol.** Let total number of shares purchased by A and B by their saving be  $5x$  and  $6x$  respectively

$$\text{ATQ, } \frac{5x+40}{6x+56} = \frac{4}{5}$$

$$25x + 200 = 24x + 224$$

$$x = 24$$

$$\text{So, saving of B} = 24 \times 6 \times 60 = 8640 \text{ Rs.}$$

**S43. Ans.(a)**

$$\text{Sol. Required average} = \frac{8 \times 5 + 7 \times 12 + 56}{20}$$

$$= \frac{40 + 84 + 56}{20} = \frac{180}{20} = 9 \text{ run/over}$$

**S44. Ans.(e)**

**Sol.** Let speed of boat in upstream be  $2s$  km/hr and that of speed in downstream be  $r$  km/hr

$$\text{Speed of boat in still water} = \frac{rs+2s}{2} \text{ km/hr}$$

$$\text{ATQ } \frac{rs+2s}{2} \times 8 = 2s \times 10$$

$$4rs + 8s = 20s$$

$$4rs = 12s$$

$$r = 3$$

**S45. Ans.(c)**

$$\text{Sol. Marked price of book} = 200 \times \frac{160}{100} = 320$$

$$\text{ATQ, } 320 \times \frac{100 - (d+5)}{100} = 200 \times \frac{120}{100}$$

$$3040 - 32d = 2400$$

$$32d = 3040 - 2400$$

$$d = 20$$

**S46. Ans.(a)**

**Sol. I.**  $x^2 - 13x + 36 = 0$

$$x^2 - 9x - 4x + 36 = 0$$

$$x(x - 9) - 4(x - 9) = 0$$

$$(x - 4)(x - 9) = 0$$

$$x = 4, 9$$

**II.**  $3y^2 - 19y + 30 = 0$

$$3y^2 - 10y - 9y + 30 = 0$$

$$y(3y - 10) - 3(3y - 10) = 0$$

$$(y - 3)(3y - 10) = 0$$

$$y = 3, \frac{10}{3}$$

So,  $x > y$

**S47. Ans.(e)**

**Sol. I.**  $x = \sqrt{256}$

$$x = 16$$

**II.**  $y - 4 = \sqrt{144}$

$$y = 4 + 12$$

$$y = 16$$

So,  $x = y$

**S48. Ans.(a)**

**Sol.**  $21 \times \frac{1}{12} \times 16 \times \frac{1}{7} \approx ?$

$$? = 4$$

**S49. Ans.(c)**

**Sol.**  $111 + 41 + 5^2 + 2^2 \approx ?$

$$? \approx 152 + 25 + 4 \approx 181$$

**S50. Ans.(b)**

**Sol.**  $? \approx 16 \times 16 \times \frac{1}{8} - 9 \times 8 + 57$

$$? \approx 32 - 72 + 57$$

$$? \approx 17$$

**S51. Ans.(b)**

**Sol.** Required sum =  $(128 - 60) + (144 - 64) + (152 - 96)$

$$= 68 + 80 + 56 = 204$$

**S52. Ans.(a)**

**Sol.** Total people visited in restaurant X =  $(152 + 136) + 36 = 324$

So, number of males visited in restaurant X =  $324 \times \frac{5}{9} = 180$

**S53. Ans.(c)**

**Sol.** Required percentage =  $\frac{60}{128} \times 100 = 46.875 \approx 47\%$

**S54. Ans.(b)**

**Sol.** Required revenue =  $48 \times 108 = 5184 \text{ Rs.}$

**S55. Ans.(d)**

**Sol.** Required percentage =  $\frac{144-136}{136} \times 100$   
 $= \frac{8}{136} \times 100 = 5.88\% \approx 6\%$

