

SNAP 2007 Question Paper with Solutions

Time Allowed :2 Hours	Maximum Marks :150	Total questions :150
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General Instructions

1. No clarification on the Question paper can be sought. Answer the questions as they are.
2. There are 150 multiple choice objective type questions of one mark each which has to be answered in the OMR Sheet. **Total Marks are 150.**
3. Candidates have to indicate the most appropriate answer by darkening one of the four responses provided, with **BLACK/BLUE BALL POINT PEN** in the OMR Answer Sheet.
4. There will be **Negative Marking** for multiple choice objective type questions. 0.25 marks will be deducted for every wrong answer.
5. The candidate shall not write anything on the OMR Answer Sheet other than the details required and in the spaces provided for.
6. After the examination is over, the candidate can carry the test booklet along with candidate's copy of the OMR after handing over the original OMR to the invigilator.
7. The use of any unfair means by any candidate will result in the cancellation of his/her candidature.
8. Impersonation is an offence and the candidate, apart from disqualification, may have to face criminal prosecution.
9. Electronic gadgets like mobile phones, pagers and calculators etc. are strictly not permitted inside the Test Centre/Hall.
10. The candidates shall not leave the hall before the end of the test.

General Awareness

1. The leading brand of artificial sweetener in India, 'Sugar Free' is owned by

- (A) Cipla
- (B) Cadila
- (C) Glaxo
- (D) Monsanto

Correct Answer: (B) Cadila

Solution:

Step 1: Identify the parent company behind the brand.

Sugar Free is a consumer wellness brand in India marketed by **Zydus Wellness**, which has been part of the broader **Cadila** (Zydus) group. Hence, among the choices, the umbrella name that maps correctly is **Cadila**.

Step 2: Cross-check with product family.

The Sugar Free line includes tabletop sweeteners based on ingredients such as aspartame, sucralose, and stevia extracts (e.g., *Sugar Free Gold*, *Sugar Free Natura*, *Sugar Free Green*). These SKUs are repeatedly associated in the market with Zydus/Cadila–owned Zydus Wellness.

Step 3: Eliminate distractors.

- **Cipla** is primarily a pharmaceuticals company and does not own Sugar Free.
- **Glaxo** refers to GlaxoSmithKline; it has consumer health products (e.g., Horlicks historically) but not Sugar Free.
- **Monsanto** is known for agro-biotech; no brand linkage to tabletop sweeteners in India.

Therefore, the ownership mapping points to B (Cadila).

Quick Tip

When a question asks about a *brand*, recall the *consumer-facing subsidiary*. Sugar Free ⇒ Zydus Wellness ⇒ Cadila (Zydus) group.

2. Monsoon is caused by

- (A) Movements of cloud
- (B) Impact of Summer temperature on the sea
- (C) Rise in temperature
- (D) Seasonal reversal of winds

Correct Answer: (D) Seasonal reversal of winds

Solution:

Step 1: Define monsoon precisely.

A *monsoon* is a large-scale seasonal wind system characterized by a **reversal in prevailing wind direction** between summer and winter, accompanied by marked changes in rainfall.

Step 2: Mechanism in brief (South Asian case).

- *Differential heating*: Land heats and cools faster than ocean. In summer, low pressure develops over the Indian subcontinent while higher pressure persists over the Indian Ocean.
- *Pressure-gradient driven winds*: Air flows from sea (high pressure) to land (low pressure) ⇒ **moist onshore winds** bringing rainfall.
- *Seasonal reversal*: In winter, land cools rapidly ⇒ high pressure over land, lower over sea ⇒ winds reverse from land to sea (dry, offshore).
- *ITCZ shift & Coriolis*: The Inter-Tropical Convergence Zone moves northward in summer, and the Coriolis effect plus topography channel the winds as the South-West and North-East monsoons.

Step 3: Eliminate options.

- (A) *Movements of cloud* are an effect, not the cause.
- (B) *Impact of Summer temperature on the sea* is incomplete; the key is *land–sea contrast* and resulting wind reversal.
- (C) *Rise in temperature* is again a contributing factor, but without the *reversal of winds* it does not define a monsoon.

Hence, the defining cause is D: Seasonal reversal of winds.

Quick Tip

Link the word *monsoon* with **wind reversal**. Rain results *because* moist onshore winds dominate in summer.

3. An Indian company manufacturing automobiles for Mitsubishi is

- (A) Tata Motors
- (B) Bajaj Tempo
- (C) Mahindra
- (D) Hindustan Motors

Correct Answer: (D) Hindustan Motors

Solution:

Step 1: Recall the historical collaboration.

Hindustan Motors (HM) entered into a technical and manufacturing collaboration with **Mitsubishi Motors**. Under this tie-up, HM assembled/produced Mitsubishi models (notably *Lancer*, later *Pajero*, *Cedia*, etc.) at its facility near Chennai (Tiruvallur).

Step 2: Eliminate other automakers.

- (A) **Tata Motors** manufactures its own passenger and commercial vehicles; no Mitsubishi manufacturing partnership of this nature.
- (B) **Bajaj Tempo** (later Force Motors) focuses on LCVs/utility vehicles and did not produce Mitsubishi passenger cars.
- (C) **Mahindra** partners have included companies like Ford (earlier) and SsangYong; not Mitsubishi for car manufacturing in India.

Hence, the company associated with manufacturing for Mitsubishi in India is

D: Hindustan Motors.

Quick Tip

Remember classic OEM–brand pairings: HM–Mitsubishi (Lancer/Pajero), Maruti–Suzuki, Hero–Honda (earlier), and Toyota–Kirloskar.

4. The name “Koneru Humpy” is associated with which of the following sport?

- (A) Badminton
- (B) Cricket
- (C) Chess
- (D) Weight Lifting

Correct Answer: (C) Chess

Solution:

Step 1: Recognize the athlete.

Koneru Humpy is an Indian **chess** prodigy who became one of the youngest female grandmasters. She has represented India in multiple Olympiads and elite FIDE events and has won premier women’s titles (including world rapid champion honors).

Step 2: Eliminate distractors by domain.

- (A) Badminton features names like P. V. Sindhu, Saina Nehwal; not Koneru Humpy.
- (B) Cricket includes Mithali Raj, Smriti Mandhana, etc.; not Humpy.
- (D) Weight lifting includes Mirabai Chanu; again not Humpy.

Therefore, her sport is C: Chess.

Quick Tip

Associate Indian chess with **Vishwanathan Anand** and **Koneru Humpy**; both are frequent GK answers.

5. The new coin ‘Rupiya’ was issued for the first time by

- (A) Sher Shah Suri
- (B) Akbar
- (C) Ala ud din Khilji
- (D) Mohammed Shah Tughlaq

Correct Answer: (A) Sher Shah Suri

Solution:

Step 1: What was the ‘Rupiya’?

The **Rupiya** was a standardized **silver** coin introduced in medieval India. It weighed about *178 grains* (≈ 11.5 g) and formed part of a tri-metallic system (gold *mohur*, silver *rupiya*, copper *dam*).

Step 2: Who issued it first?

Sher Shah Suri (16th century) introduced this standardized **rupiya** during his administrative and currency reforms. The system provided consistent weights and improved trade and taxation, and was later continued by the Mughals and then the British in adapted forms.

Step 3: Eliminate alternatives.

(B) **Akbar** implemented wide monetary and administrative reforms but *continued* an evolved coinage system; he did not originate the *rupiya*.

(C) **Ala ud din Khilji** made significant military and economic policies earlier, but not the standardized *rupiya*.

(D) **Muhammad bin Tughlaq** experimented with token currency (copper–bronze coins), which failed; again, not the origin of the *rupiya*.

Hence, the first issuance of the standardized silver **Rupiya** is credited to A: Sher Shah Suri.

Quick Tip

Link rulers to currency: **Sher Shah Suri** \Rightarrow standardized *Rupiya*; **Muhammad bin Tughlaq** \Rightarrow token currency experiment; **Akbar** \Rightarrow consolidation and standardization of Mughal coinage.

6. One of the following allows an individual to start and continue to share regularly any of his/her own personal experience, knowledge, opinion or thought with the internet community?

(A) Portal

(B) Email

(C) Blog

(D) Chat

Correct Answer: (C) Blog

Solution:

A **blog** is a web-based platform where individuals can continuously share their personal experiences, knowledge, opinions, or thoughts in written form, often accompanied by images or videos. It acts like a digital diary or journal open to the internet community.

Let us analyze the options carefully: - **Option (A) Portal:** A portal is a general gateway to access multiple resources, like Yahoo! or government service portals. While they provide information, they are not designed for one individual to express and update personal thoughts or experiences regularly.

- **Option (B) Email:** Email is a communication tool for sending messages directly to specific individuals or groups. It does not serve as a public platform for ongoing sharing with the internet community at large.

- **Option (C) Blog:** This is the correct option. A blog allows consistent publishing, archiving, and sharing of posts that reach a wide audience. Blogging platforms such as WordPress, Blogger, or Medium encourage interaction via comments, making it community-driven.

- **Option (D) Chat:** Chat refers to instant communication, often private and real-time (e.g., WhatsApp, Messenger). It lacks the long-term, structured, and broad-audience sharing that blogs provide.

Hence, the correct answer is Blog.

Quick Tip

Blogs are public and long-term platforms for sharing, unlike chats and emails that are private and short-term.

7. Phishing is

(A) A Govt. plan

- (B) A stem cell
- (C) A fraudulent way of getting the PIN and bank passwords using emails
- (D) None of these

Correct Answer: (C) A fraudulent way of getting the PIN and bank passwords using emails

Solution:

Phishing is a type of online scam where attackers impersonate trustworthy organizations (like banks or service providers) to trick individuals into revealing sensitive information such as passwords, credit card details, or PINs. The most common method is through fake emails that look genuine, leading users to fraudulent websites.

Let us carefully consider the options: - **Option (A) A Govt. plan:** Incorrect. Phishing has no relation to government schemes.

- **Option (B) A stem cell:** Incorrect. A stem cell is a biological term, unrelated to internet fraud.

- **Option (C) Fraudulent way using emails:** Correct. It defines phishing accurately—emails or links mislead users to share confidential information.

- **Option (D) None of these:** Incorrect because option C is valid.

Example: A fake email claiming to be from a bank asking you to “verify your account” by clicking a link and entering details is phishing.

Thus, the correct answer is Fraudulent email scam.

Quick Tip

Never click suspicious links in emails. Always check the sender’s address and the URL before entering sensitive details.

8. In the sports world, the sobriquet ‘Indo-Pak Express’ is applied to

- (A) Shree Santh and Shoaib Akhtar
- (B) Rohan Bopanna and Aisam-Ul-Haq Qureshi
- (C) Sania Mirza and Shahar Peer

(D) Rohan Bopanna and Shahar Peer

Correct Answer: (B) Rohan Bopanna and Aisam-Ul-Haq Qureshi

Solution:

The title “Indo-Pak Express” refers to the tennis doubles team of **Rohan Bopanna (India)** and **Aisam-Ul-Haq Qureshi (Pakistan)**. They became popular not only for their sporting achievements but also for their message of peace between India and Pakistan.

Analysis of options: - **Option (A) Shree Santh and Shoaib Akhtar:** Incorrect. Both are cricketers, not associated with this sobriquet.

- **Option (B) Bopanna and Qureshi:** Correct. They played together as doubles partners and were famously nicknamed “Indo-Pak Express.”

- **Option (C) Sania Mirza and Shahar Peer:** Incorrect. They played doubles but were never called Indo-Pak Express.

- **Option (D) Rohan Bopanna and Shahar Peer:** Incorrect. Shahar Peer is from Israel, not Pakistan.

Therefore, the right answer is Bopanna and Qureshi.

Quick Tip

Memorable sports nicknames often symbolize unity or playing style. “Indo-Pak Express” = peace through tennis.

9. A film that has not been directed by Mira Nair is

(A) Earth

(B) Monsoon Wedding

(C) Kamasutra

(D) Salaam Bombay

Correct Answer: (A) Earth

Solution:

Mira Nair is an acclaimed Indian-American filmmaker. Some of her notable works include: - *Salaam Bombay!* (1988) – Academy Award nominated film.

- *Monsoon Wedding* (2001) – Critically acclaimed for depicting Indian weddings.

- *Kamasutra: A Tale of Love* (1996).

However, *Earth* (1998) was directed by Deepa Mehta, not Mira Nair. It is part of Deepa Mehta's Elements Trilogy (*Fire, Earth, Water*).

Thus, the correct answer is Earth.

Quick Tip

Link directors with their unique styles—Mira Nair (realistic social themes), Deepa Mehta (Elements Trilogy).

10. In banking terminology, CRR means

- (A) Credit Reserve Ratio
- (B) Cash Reserve Ratio
- (C) Credit Rating Ratio
- (D) Cash Rating Ratio

Correct Answer: (B) Cash Reserve Ratio

Solution:

CRR stands for **Cash Reserve Ratio**, a crucial monetary policy tool used by the Reserve Bank of India (RBI). It refers to the proportion of a commercial bank's net demand and time liabilities (NDTL) that must be maintained as liquid cash reserves with the RBI.

Why it is important: - It ensures that banks always keep a minimum percentage of deposits safe.

- It helps control inflation and regulate liquidity in the economy.
- Higher CRR = less money for banks to lend = reduced liquidity.
- Lower CRR = more money for banks to lend = increased liquidity.

Analysis of options: - **Option (A) Credit Reserve Ratio:** Incorrect, no such term exists in banking.

- **Option (B) Cash Reserve Ratio:** Correct. Officially defined by RBI.
- **Option (C) Credit Rating Ratio:** Incorrect, this relates to creditworthiness ratings.
- **Option (D) Cash Rating Ratio:** Incorrect, meaningless in banking terminology.

Hence, the correct term is Cash Reserve Ratio.

Quick Tip

Remember CRR (Cash Reserve Ratio) and SLR (Statutory Liquidity Ratio) as RBI's monetary policy tools to control liquidity and inflation.

11. Some of the large deals entered into by IT majors in India (all are billion dollar deals) are listed here as options. Which one is not?

- (A) TCS–Nielson
- (B) Tech Mahindra–BT
- (C) Infosys–BN AM O
- (D) IBM–Bharti

Correct Answer: (C) Infosys–BN AM O

Solution:

Step 1: Recall actual billion-dollar IT deals in India.

- TCS signed a multi-billion dollar outsourcing contract with **Nielson**.
- Tech Mahindra had a major multi-billion deal with **British Telecom (BT)**.
- IBM signed a deal with **Bharti Airtel** for managing IT and telecom infrastructure.

Step 2: Check validity of the option in question.

- “Infosys–BN AM O” is not recognized as a billion-dollar deal in IT history. The name itself seems erroneous and does not correspond to a known Infosys contract.

Hence, the incorrect one (not a billion-dollar deal) is C.

Quick Tip

When solving GK on IT, remember actual historic deals: TCS–Nielson, Tech Mahindra–BT, IBM–Bharti. Anything unfamiliar or misspelled is likely the wrong one.

12. Suicide car bomb caused havoc in England in July 2007 at which airport?

- (A) Glasgow
- (B) Heathrow
- (C) Birmingham
- (D) Nottingham

Correct Answer: (A) Glasgow

Solution:

Step 1: Recall the incident.

On 30 June 2007, a terrorist attack was attempted at **Glasgow International Airport** in Scotland, UK. A Jeep loaded with propane canisters was rammed into the terminal building.

Step 2: Confirm elimination.

- Heathrow and Birmingham are major airports but were not attacked in this incident.
- Nottingham does not figure in this 2007 terror attack.

Therefore, the attack location was A: Glasgow.

Quick Tip

For terrorism GK questions, focus on major global attacks (9/11 New York, 2005 London bombings, 2007 Glasgow Airport).

13. Pakistan has signed Free Trade Agreement (FTA) and a five-year investment package with

- (A) USA

- (B) European Union
- (C) China
- (D) Russia

Correct Answer: (C) China

Solution:

Step 1: Recall FTA partnerships.

Pakistan signed a Free Trade Agreement (FTA) with **China** in 2006, which came into force in 2007. This also included a multi-year investment package, strengthening economic ties.

Step 2: Eliminate others.

- USA has trade relations with Pakistan but no FTA.
- EU grants GSP (Generalised System of Preferences) benefits, not an FTA.
- Russia has limited trade ties, no formal FTA.

Thus, the correct partner is C: China.

Quick Tip

Pakistan–China economic cooperation includes CPEC, Gwadar Port development, and FTAs.

14. Major oil finds in India have been reported in

- (A) Krishna Godavari Basin
- (B) Cauvery Basin
- (C) Rajasthan Desert
- (D) Lower Assam Valley

Correct Answer: (A) Krishna Godavari Basin

Solution:

Step 1: Recall major petroleum discoveries.

India's major oil and natural gas discoveries have been reported in the **Krishna Godavari (KG) Basin**, located along the east coast of India (Andhra Pradesh).

Step 2: Examples.

The KG-D6 block, discovered and developed by Reliance Industries Limited, is one of India's most important natural gas finds. ONGC has also reported hydrocarbon discoveries in this basin.

Step 3: Eliminate other basins.

- (B) Cauvery Basin has petroleum potential but not the largest finds.
- (C) Rajasthan Desert (Barmer fields, Cairn India) has oil discoveries but the largest landmark discoveries remain KG Basin.
- (D) Lower Assam Valley also has oil fields (Digboi, Naharkatiya) but they are older, not the recent "major" discoveries.

Thus, the correct answer is A.

Quick Tip

Always link "Krishna Godavari Basin" with Reliance's KG-D6 natural gas discovery (2002).

15. The propagation of radio signals is greatly influenced by

- (A) Troposphere
- (B) Ionosphere
- (C) Exosphere
- (D) Thermosphere

Correct Answer: (B) Ionosphere

Solution:**Step 1: Define the ionosphere.**

The **ionosphere** is a region of Earth's upper atmosphere (about 60 km to 1000 km above the surface) that is ionized by solar radiation. It contains free electrons and ions capable of reflecting and refracting radio waves.

Step 2: Explain its role in radio communication.

Radio signals, especially shortwave and HF bands, are reflected by the ionosphere back to Earth, allowing long-distance communication beyond the horizon (skywave propagation). Without the ionosphere, radio signals would simply travel straight into space.

Step 3: Eliminate other layers.

- (A) Troposphere: Important for weather and aircraft, not long-distance radio propagation.
- (C) Exosphere: Outermost thin layer, negligible role in radio wave reflection.
- (D) Thermosphere: Overlaps with ionosphere, but radio influence is specifically from ionization.

Thus, the correct layer is B: Ionosphere.

Quick Tip

Think of “Ionosphere = Ions = Radio waves reflection.” This helps in remembering its importance for wireless communication.

16. According to Dun and Bradstreet which one of the following is the largest employer among Indian ITeS and BPO companies?

- (A) Genpact
- (B) Accenture Services
- (C) Wipro BPO
- (D) IBM Daksh

Correct Answer: (A) Genpact

Solution:

Genpact, originally a part of General Electric (GE), emerged as one of the largest employers in the ITeS (Information Technology Enabled Services) and BPO (Business Process Outsourcing) sector in India. According to reports by Dun & Bradstreet, Genpact had an extensive workforce providing outsourcing solutions across finance, accounting, analytics, and customer services.

Analysis of options: - **Option (A) Genpact:** Correct. Known as a leading employer in the BPO industry.

- **Option (B) Accenture Services:** While Accenture is a huge IT company, its BPO workforce in India was not as large as Genpact's at the time of the survey.
- **Option (C) Wipro BPO:** Large, but not ranked the topmost employer by Dun & Bradstreet.
- **Option (D) IBM Daksh:** Another significant BPO player, but again smaller compared to Genpact.

Thus, the largest employer was Genpact.

Quick Tip

Remember that Genpact started as GE Capital International Services (GECIS) before becoming independent—helpful for BPO history questions.

17. “In God we trust, the rest have to bring data on the table.” This statement was made by the famous industrialist

- (A) J.R.D. Tata
- (B) Aditya Birla
- (C) Dhirubhai Ambani
- (D) Narayan Murthy

Correct Answer: (D) Narayan Murthy

Solution:

The quote highlights the importance of data-driven decisions in the corporate world. Narayan Murthy, the co-founder of Infosys, often emphasized transparency, accountability, and reliance on facts over assumptions in business. The quote is attributed to him in several business leadership contexts.

Other industrialists like J.R.D. Tata, Aditya Birla, and Dhirubhai Ambani are known for their visionary roles, but this particular quote is linked with Narayan Murthy.

Hence, the correct answer is Narayan Murthy.

Quick Tip

Associate Narayan Murthy with Infosys, corporate governance, and emphasis on data-driven management.

18. The runner-up in the recent Vice-Presidential election was

- (A) Mr. Bhairon Singh Shekhawat
- (B) Dr. Najma Heptullah
- (C) Mr. Praful Patel
- (D) Mr. Hameed Ansari

Correct Answer: (B) Dr. Najma Heptullah

Solution:

Mohammad Hamid Ansari won the Vice-Presidential election, and his main opponent was Dr. Najma Heptullah. She represented the opposition party and contested strongly but ended as the runner-up.

Analysis of options: - **Option (A) Bhairon Singh Shekhawat:** Former Vice-President but not relevant to this particular election.

- **Option (B) Najma Heptullah:** Correct. She was the runner-up.

- **Option (C) Praful Patel:** Politician, but not a contestant in this election.

- **Option (D) Hamid Ansari:** He was the winner, not the runner-up.

Thus, the correct answer is Dr. Najma Heptullah.

Quick Tip

Always remember—Hamid Ansari served as Vice President for two terms (2007–2017).

19. Which of the following is not provided in the constitution?

- (A) Election Commission

- (B) Planning Commission
- (C) Public Service Commission
- (D) Finance Commission

Correct Answer: (B) Planning Commission

Solution:

The Indian Constitution explicitly provides for: - **Election Commission** (Article 324).

- **Public Service Commissions** (Articles 315–323).

- **Finance Commission** (Article 280).

However, the **Planning Commission** was not mentioned in the Constitution. It was established in 1950 by an executive resolution of the Government of India, not by a constitutional provision. Later, it was replaced by **NITI Aayog** in 2015.

Thus, the correct answer is Planning Commission.

Quick Tip

A body not in the Constitution = Planning Commission (now replaced by NITI Aayog).

20. When did Governor General's rule end in India?

- (A) 15th August 1947
- (B) 9th August 1948
- (C) 26th January 1950
- (D) 2nd October 1950

Correct Answer: (C) 26th January 1950

Solution:

- On 15th August 1947, India became independent, but the head of state was still the **Governor General of India** (Lord Mountbatten, later C. Rajagopalachari).

- The Governor General acted as the representative of the British Crown, even after independence.

- This arrangement continued until the adoption of the Constitution of India.
- On 26th January 1950, India became a **Republic**, and the post of Governor General was abolished, replaced by the position of the **President of India** (Dr. Rajendra Prasad being the first).

Thus, Governor General's rule formally ended on 26th January 1950.

Quick Tip

Remember: Independence in 1947, Republic in 1950. Governor General → President of India transition happened on 26th January 1950.

21. The newspaper which was recently voted as the largest selling newspaper in the world is

- (A) The Los Angeles Times
- (B) The Times of India
- (C) The London Times
- (D) The New York Times

Correct Answer: (B) The Times of India

Solution:

Step 1: Understanding circulation records.

The **Times of India**, with millions of copies circulated daily, has consistently been recognized as one of the largest selling English-language newspapers globally.

Step 2: Eliminating other options.

- (A) The Los Angeles Times has significant readership in the US but nowhere near global top circulation.
- (C) The London Times is prestigious but not the largest seller.
- (D) The New York Times is internationally renowned but its circulation is smaller compared to TOI.

Hence, the world's largest selling English-language daily is B.

Quick Tip

Remember: **Times of India** is the largest circulated English daily in the world, while Dainik Jagran (Hindi) leads in overall circulation in India.

22. Which of the following countries is the top source of FDI inflows into India at present?

- (A) Singapore
- (B) USA
- (C) UK
- (D) Mauritius

Correct Answer: (D) Mauritius

Solution:

Step 1: FDI routing through Mauritius.

Mauritius has historically been the top source of FDI into India due to the **India–Mauritius Double Taxation Avoidance Agreement (DTAA)**. This made Mauritius an attractive route for investments into India.

Step 2: Eliminate other options.

- (A) Singapore is another major FDI source, but second to Mauritius for many years.
- (B) USA is significant but not the top source.
- (C) UK has strong investments, but not at the highest level.

Therefore, the top source of FDI inflows has been D: Mauritius.

Quick Tip

Link Mauritius with FDI due to DTAA tax advantages; Singapore comes close in recent years.

23. The human cell contains

- (A) 44 chromosomes
- (B) 48 chromosomes
- (C) 46 chromosomes
- (D) 23 chromosomes

Correct Answer: (C) 46 chromosomes

Solution:

Step 1: Chromosome count.

A typical human somatic cell contains **46 chromosomes** arranged in 23 pairs. Each parent contributes 23 chromosomes, forming the diploid number 46.

Step 2: Understanding alternatives.

- (A) 44 chromosomes would mean missing a pair—incorrect.
- (B) 48 chromosomes belong to some primates, not humans.
- (D) 23 chromosomes is correct for gametes (sperm/egg), not somatic cells.

Thus, human cells contain 46 chromosomes.

Quick Tip

Diploid cells = 46 chromosomes (23 pairs). Haploid gametes = 23 chromosomes.

24. In year 2006, the three largest economies in the world were

- (A) USA, Japan & Germany
- (B) USA, China & Japan
- (C) USA, UK & Germany
- (D) USA, UK & France

Correct Answer: (A) USA, Japan & Germany

Solution:

Step 1: Check GDP rankings in 2006.

In 2006, by nominal GDP: 1. USA (largest), 2. Japan (second largest), 3. Germany (third largest).

Step 2: Eliminate distractors.

- China was growing fast but had not overtaken Germany/Japan yet in 2006.
- UK and France were strong economies but smaller than Germany and Japan.

Thus, the top three in 2006 were USA, Japan & Germany.

Quick Tip

China overtook Germany in 2007 (PPP basis earlier, nominal later). For 2006, remember USA–Japan–Germany.

25. Identify an entry that is reversed in terms of the forex rates for US Dollar on a day recently.

- (A) 1 US \$ = Rs. 39.35
- (B) 1 US \$ = € 1.42
- (C) 1 US \$ = £ 0.48
- (D) 1 US \$ = ¥ 114

Correct Answer: (B) 1 US \$ = € 1.42

Solution:**Step 1: Understand forex rate inversion.**

At the time referenced, the Euro was stronger than the US dollar. Hence, 1 Euro was worth more than 1 US dollar. The statement $1\text{ US \$} = \text{€ } 1.42$ is inverted and wrong—correct would be closer to $1\text{ Euro} = 1.42\text{ US \$}$.

Step 2: Check other entries.

- (A) Dollar–Rupee rate (39.35 per dollar) was realistic for mid-2000s.
- (C) Dollar–Pound (0.48) is reasonable; pound ½ dollar.
- (D) Dollar–Yen (114) is also realistic historically.

Thus, the incorrect/reversed entry is B.

Quick Tip

When checking forex, always remember: historically, the Euro and Pound were stronger than USD; Rupee and Yen weaker.

26. Starbucks, the coffee chain retailer's name is inspired from which book?

- (A) The Scarlet Letter
- (B) Moby Dick
- (C) Uncle Tom's Cabin
- (D) None of the above

Correct Answer: (B) Moby Dick

Solution:

The name “Starbucks” was inspired by Herman Melville’s famous novel *Moby Dick*. In the book, Starbuck is the name of the first mate of the Pequod, Captain Ahab’s ship. The founders of Starbucks wanted a name that evoked the romance of the sea and the tradition of coffee trading, hence “Starbucks.”

Analysis of options: - **Option (A) The Scarlet Letter:** A classic novel, but unrelated to Starbucks.

- **Option (B) Moby Dick:** Correct. Direct inspiration for the name.

- **Option (C) Uncle Tom's Cabin:** A famous anti-slavery novel, but unrelated.

- **Option (D) None of the above:** Incorrect, since the correct source is Moby Dick.

Thus, the answer is Moby Dick.

Quick Tip

Link Starbucks with seafaring and coffee trade history—the name “Starbuck” comes from a character in Moby Dick.

27. A major US toy manufacturer which suffered a breakdown in supply chain from China on account of legally unacceptable toxic substances in its products is

- (A) Leo Toys
- (B) Mattel Toys
- (C) Universal Toys
- (D) Funskool Toys

Correct Answer: (B) Mattel Toys

Solution:

In 2007, Mattel, one of the world's largest toy manufacturers, recalled millions of toys due to the use of lead-based paints and small magnetic parts from Chinese suppliers. This incident highlighted the risks of global supply chains and raised major concerns about product safety standards.

Analysis of options: - **Option (A) Leo Toys:** Incorrect, relatively small Indian toy brand.

- **Option (B) Mattel Toys:** Correct. They suffered huge losses and reputational damage from the recalls.

- **Option (C) Universal Toys:** Not involved in this case.

- **Option (D) Funskool Toys:** An Indian company, not part of this controversy.

Thus, the affected company was Mattel Toys.

Quick Tip

The Mattel toy recall of 2007 is a landmark case in consumer safety and global supply chain management.

28. Bollywood name has been granted as a trademark to which US-based Media and Entertainment company by Indian Trademark Registry?

- (A) Viacom
- (B) Universal Studios
- (C) Disney Enterprises

(D) Miramax

Correct Answer: (C) Disney Enterprises

Solution:

The Indian Trademark Registry granted the trademark of the word “Bollywood” to Disney Enterprises, a major US-based entertainment company. This move was controversial because Bollywood refers broadly to the Hindi film industry, and many argued that no foreign company should own the trademark for such a cultural term.

Analysis of options: - **Option (A) Viacom:** Big entertainment company, but not granted the trademark.

- **Option (B) Universal Studios:** Not associated with this case.

- **Option (C) Disney Enterprises:** Correct. Disney secured the rights.

- **Option (D) Miramax:** A US-based studio, but not involved in this matter.

Thus, the correct answer is Disney Enterprises.

Quick Tip

Trademarks are often controversial when they involve cultural or generic industry terms like “Bollywood.”

29. Lakshmi Mittal, the famous NRI industrialist, is partnering with Govt. of India for which of the following big projects?

(A) Oil Refinery

(B) Atomic Power Plant

(C) Biotechnology

(D) Mining

Correct Answer: (A) Oil Refinery

Solution:

Lakshmi Mittal, chairman of ArcelorMittal, one of the world’s largest steel companies, partnered with the Government of India in energy-related ventures. He has been involved in

joint projects for oil refinery expansion and petrochemical industries, recognizing India's rising demand for energy.

Analysis of options: - **Option (A) Oil Refinery:** Correct. He collaborated in energy projects, including refineries.

- **Option (B) Atomic Power Plant:** Not connected with Mittal's industrial profile.

- **Option (C) Biotechnology:** Unrelated to Mittal's steel and energy focus.

- **Option (D) Mining:** While Mittal is associated with steel (which involves iron ore mining), the specific partnership with the Government of India was in oil refinery projects.

Thus, the correct answer is Oil Refinery.

Quick Tip

Link Lakshmi Mittal with steel, energy, and refinery projects rather than nuclear or biotech.

30. Tyeb Mehta, Nand Lal Bose and Majit Bewa are

(A) Classical Singers

(B) English Poets

(C) Photographers

(D) Painters

Correct Answer: (D) Painters

Solution:

- **Tyeb Mehta** was a modern Indian painter associated with the Bombay Progressive Artists' Group, famous for abstract and expressionist works.

- **Nand Lal Bose** was a key figure in modern Indian art and worked closely with Rabindranath Tagore and Mahatma Gandhi, creating artworks for the Indian freedom movement.

- **Majit Bewa** was also a painter, known for contributions to modern Indian visual arts.

Other categories such as singers, poets, or photographers do not match these names.

Thus, they are Painters.

Quick Tip

Tyeb Mehta = Modern abstract art, Nandalal Bose = Nationalist art, both key figures in India's painting history.

31. Zapak Digital Entertainment (a gaming venture) belongs to which business group?

- (A) UTV
- (B) Balaji Telefilm
- (C) Zee TV
- (D) Anil Dhirubhai Ambani Enterprises

Correct Answer: (D) Anil Dhirubhai Ambani Enterprises

Solution:

Step 1: Understanding Zapak Digital Entertainment.

Zapak Digital is one of India's largest gaming portals, launched in 2006. It gained popularity with online games and casual gaming services.

Step 2: Ownership.

Zapak was a part of the **Reliance ADA Group** (Anil Dhirubhai Ambani Enterprises). The group invested heavily in media, entertainment, and gaming ventures.

Step 3: Elimination.

- UTV (A) was mainly into films and TV.
- Balaji Telefilm (B) is known for television serials.
- Zee TV (C) is a channel, not linked to Zapak.

Therefore, the correct business group is D.

Quick Tip

Zapak = Reliance ADA Group gaming brand; became very popular among youth in mid-2000s.

32. In August 2007, Chennai High Court passed a landmark judgment that may have far reaching consequences on pharmaceuticals industry, dismissing a writ petition filed by

- (A) Ranbaxy
- (B) Sandoz
- (C) Novartis
- (D) Glaxo

Correct Answer: (C) Novartis

Solution:

Step 1: Background.

In 2007, Novartis challenged Section 3(d) of the Indian Patents Act, arguing against the denial of patent protection for its anti-cancer drug **Glivec**.

Step 2: Court Ruling.

The Chennai High Court dismissed Novartis's petition, upholding India's right to restrict "evergreening" of patents. This was a huge victory for generic drug manufacturers and access to affordable medicines.

Step 3: Elimination.

Other pharmaceutical firms like Ranbaxy, Sandoz, and Glaxo were not petitioners in this case.

Hence, the petitioner was Novartis.

Quick Tip

Remember: Novartis vs Section 3(d) = landmark case protecting generic drug access.

33. The busiest port in the world today is

- (A) Port of Rotterdam
- (B) Port of Shanghai

(C) Port of Singapore

(D) Port of Dubai

Correct Answer: (C) Port of Singapore

Solution:

Step 1: Understanding “busiest port”.

The “busiest” port is judged by container traffic (TEUs handled).

Step 2: Comparison.

- In the early 2000s, **Singapore** was the busiest container port globally.
- Rotterdam (A) was once Europe’s busiest but not global No.1 by then.
- Shanghai (B) overtook Singapore later (post-2010).
- Dubai (D) is a major Middle Eastern hub, but not the busiest globally.

Therefore, at that time, the busiest was Singapore.

Quick Tip

Timeline tip: Before 2010 → Singapore busiest. After 2010 → Shanghai overtook.

34. In recent months the monks of Myanmar marched the streets of Yangon in hundreds

- (A) To spread the message of peace
- (B) To celebrate Buddha Purnima
- (C) To protest against the government that was ruling
- (D) To take the normal route for alms

Correct Answer: (C) To protest against the government that was ruling

Solution:

Step 1: Historical context.

In 2007, Myanmar (Burma) saw massive protests called the “Saffron Revolution”, led by Buddhist monks.

Step 2: Cause.

The protests were against fuel price hikes, economic hardship, and political repression by the military junta.

Step 3: Elimination.

- (A) and (B) were not the reasons for such a large-scale demonstration.
- (D) Alms route is routine but not in protest form.

Hence, monks marched to protest against the government .

Quick Tip

Keyword: Saffron Revolution = monks' protests in Myanmar (2007) against junta.

35. To recover the national loss suffered by small investors in the IPO allotment scam from the National Securities Depository Services Ltd, Central Depository Services Ltd, and eight depository participants, a second interim order was passed by

- (A) SEBI
- (B) RBI
- (C) FMI
- (D) Supreme Court

Correct Answer: (A) SEBI

Solution:

Step 1: Background.

The IPO scam involved manipulation in share allotments using multiple demat accounts. Small investors suffered losses.

Step 2: Authority.

The **Securities and Exchange Board of India (SEBI)** is the market regulator and has the authority to pass such orders against NSDL, CDSL, and participants.

Step 3: Elimination.

- RBI regulates banks, not securities markets.
- FMI not relevant.
- Supreme Court intervenes in legal disputes, not direct regulatory action.

Thus, the correct authority is **SEBI**.

Quick Tip

For market scams or IPO irregularities, always connect with SEBI as the watchdog.

36. Indian Broadcasting Service was renamed in 1936 as

- (A) Kshwani
- (B) Nabhowani
- (C) Doorwani
- (D) All India Radio

Correct Answer: (D) All India Radio

Solution:

The Indian Broadcasting Service (IBS) began in 1930 as an experimental radio service. In 1936, it was renamed **All India Radio (AIR)**, which went on to become the official national public radio broadcaster of India.

Analysis of options: - **Option (A) Kshwani:** Incorrect, not historically used.

- **Option (B) Nabhowani:** Incorrect, irrelevant term.

- **Option (C) Doorwani:** Incorrect, but “Doordarshan” was later used for television in 1959.

- **Option (D) All India Radio:** Correct. The authentic name given in 1936.

Thus, the correct answer is **All India Radio**.

Quick Tip

All India Radio was renamed from IBS in 1936 and became Akashvani in 1957 for Hindi broadcasts.

37. Which of the following is not a principal organ of the UNO?

- (A) General Assembly

- (B) Trusteeship Council
- (C) Security Council
- (D) World Health Organization

Correct Answer: (D) World Health Organization

Solution:

The six principal organs of the United Nations are: 1. General Assembly 2. Security Council 3. Economic and Social Council (ECOSOC) 4. Trusteeship Council 5. International Court of Justice (ICJ) 6. Secretariat

The **World Health Organization (WHO)** is a specialized agency of the UN, not one of its principal organs.

Thus, the correct answer is World Health Organization.

Quick Tip

Always differentiate between UN's principal organs (structural bodies) and specialized agencies like WHO, UNESCO, IMF.

38. Who was the composer of the classical composition 'Moonlight Sonata'?

- (A) Ludwig Van Beethoven
- (B) Joseph Haydn
- (C) Johann Bach
- (D) Handel

Correct Answer: (A) Ludwig Van Beethoven

Solution:

The **Moonlight Sonata**, officially named "Piano Sonata No. 14 in C-sharp minor, Op. 27, No. 2," was composed by **Ludwig Van Beethoven** in 1801. It is one of his most famous piano works, admired for its hauntingly beautiful first movement.

Analysis of options: - **Option (A) Beethoven:** Correct.

- **Option (B) Haydn:** Mentor to Beethoven but not the composer of this piece.
- **Option (C) Bach:** Renowned for baroque works, not this sonata.
- **Option (D) Handel:** Famous for operas and oratorios, not related to this sonata.

Thus, the correct answer is Beethoven.

Quick Tip

“Moonlight Sonata” = Beethoven. Link him with Romantic-era piano masterpieces.

39. During the year 2006-07 Indian Railways earned a profit of approximately

- (A) Rs. 20,000 crores
- (B) Rs. 14,000 crores
- (C) Rs. 18,000 crores
- (D) Rs. 16,500 crores

Correct Answer: (A) Rs. 20,000 crores

Solution:

Under the leadership of Railway Minister Lalu Prasad Yadav, Indian Railways reported record profits in 2006–07, approximately **Rs. 20,000 crores**. The turnaround was attributed to: - Improved freight management policies. - Dynamic pricing models. - Efficiency in passenger services.

Thus, the correct profit figure is Rs. 20,000 crores.

Quick Tip

Lalu Yadav is often credited for Indian Railways’ historic financial turnaround in mid-2000s.

40. Egg is a rich source of nutrients except

- (A) Vitamin C

- (B) Protein
- (C) Vitamin D
- (D) None of the above

Correct Answer: (A) Vitamin C

Solution:

Eggs are considered a “complete food” because they contain almost all essential nutrients: - High-quality **protein** (all 9 essential amino acids).

- Vitamins such as **Vitamin D, Vitamin A, and B-complex vitamins.**
- Minerals like selenium, iron, and phosphorus.

However, eggs naturally **lack Vitamin C**. This is why citrus fruits or vegetables are required to complement eggs in a balanced diet.

Thus, the correct answer is Vitamin C.

Quick Tip

Remember: Eggs provide almost everything except Vitamin C—always combine with fruits/vegetables for a balanced diet.

General English

Instructions [41 - 46]

Read the following passage and answer within its context.

The world dismisses curiosity by calling it idle, or mere idle curiosity - even though curious persons are seldom idle. Parents do their best to extinguish curiosity in their children because it makes life difficult to be faced every day with a string of answerable questions about what makes fire hot or why grass grows. Children whose curiosity survives parental discipline are invited to join our university. Within the university, they go on asking their questions and trying to find the answers. In the eyes of a scholar, that is mainly what a university is for. Some of the questions that scholars ask seem to the world to be scarcely worth asking let alone answering. They ask questions

too minute and specialized for you and me to understand without years of explanation. If the world inquires of one of them why he wants to know the answer to a particular question he may say, especially if he is a scientist, that the answer will in some obscure way make possible a new machine or weapon or gadget. He talks that way because he knows that the world understands and respects utility. But to you who are now part of the university, he will say that he wants to know the answer simply because he does not know it. The way a mountain climber wants to climb a mountain simply because it is there. Similarly a historian when asked by outsiders why he studies history may come out with argument that he has learnt to repeat on such occasions. Something about knowledge of the past making it possible to understand the present and mould the future. But if you really want to know why a historian studies the past, the answer is much simpler: something happened, and he would like to know what. All this does not mean that the answers which scholars find to their questions have no consequences. They may have enormous consequences but these seldom form the reason for asking the question or pursuing the answers. It is true that scholars can be put to work answering questions for the sake of the consequences as thousands are working now, for example, in search of a cure for cancer. But this is not the primary function of the scholar, for the consequences are usually subordinate to the satisfaction of curiosity.

41. Common people consider some of the questions asked by scholars as unimportant

- (A) since they are not worth asking or answering
- (B) because the question is related to new machines and gadgets
- (C) because the common man doesn't understand questions without years of explanations.
- (D) scholars ask very minute, specialized questions beyond the comprehension of the common man.

Correct Answer: (D) scholars ask very minute, specialized questions beyond the comprehension of the common man.

Solution:

The passage highlights that scholars often ask questions that are so specialized and technical that they appear irrelevant to common people. The author mentions that these questions are

“too minute and specialized” for ordinary people to understand without years of study.

Thus, the correct answer is scholars ask minute, specialized questions.

Quick Tip

Scholarly research questions may seem trivial to laymen but have deep academic significance.

42. In the statement ‘that is mainly what a university is for’ ‘that’ refers to

- (A) parents refusal to answer questions.
- (B) children’s curiosity that survives parents’ structures.
- (C) questions not worth answering.
- (D) the aim and scope of the university to provide an opportunity to curious minds to find out the answers to their questions.

Correct Answer: (D) the aim and scope of the university to provide an opportunity to curious minds to find out the answers to their questions.

Solution:

The author states that children whose curiosity survives parental discipline are encouraged to join universities. Within the university, they can continue asking questions and searching for answers. Hence, “that” refers to the purpose of a university—supporting the intellectual curiosity of students.

Therefore, the correct answer is the aim and scope of the university.

Quick Tip

Always check pronoun references in comprehension passages; “that” usually refers back to the key idea in the previous sentence.

43. According to the passage the general public respects

- (A) new inventions.
- (B) any useful invention.
- (C) any invention that makes life easier for them.
- (D) a scientist who invents gadgets and machines for them.

Correct Answer: (B) any useful invention.

Solution:

The author remarks that society values **utility**. If a scientist's work leads to something useful—a new gadget, machine, or tool—the public respects it. This indicates that it is not invention alone, but usefulness that garners respect.

Therefore, the correct answer is any useful invention.

Quick Tip

Public appreciation is tied to practical utility—anything that makes life easier gains quick respect.

44. The writer compares the scientist to

- (A) a historian and mountain climber.
- (B) a historian.
- (C) a mountain climber.
- (D) a scholar.

Correct Answer: (A) a historian and mountain climber.

Solution:

The author draws a comparison between scientists and explorers of the past. Scientists, like historians, delve into past data and discoveries. They are also like mountain climbers, always striving to go beyond current limits in pursuit of knowledge.

Thus, the correct answer is a historian and mountain climber.

Quick Tip

Metaphorical comparisons in passages highlight the nature of a profession—scientists are explorers of truth like climbers and historians.

45. The primary function of a scholar is different from the search for a cure for cancer because

- (A) the answers to the scholar's question have no consequence unlike the results of the research involving a cure for cancer.
- (B) the answer sought by the scholar is selfish unlike the consequences of cancer research which are for the common weal.
- (C) the primary function of a scholar is satisfaction of his mental curiosity, while research involving a cure for cancer demands a constant, systematic and planned pursuit by several scholars.
- (D) several scholars work for a cancer cure while a single scholar works with a selfish motive.

Correct Answer: (C) the primary function of a scholar is satisfaction of his mental curiosity, while research involving a cure for cancer demands a constant, systematic and planned pursuit by several scholars.

Solution:

The author distinguishes between academic curiosity and applied medical research. Scholars often pursue knowledge for intellectual satisfaction, without immediate concern for utility. In contrast, cancer research is a practical, result-oriented, collective effort demanding rigorous planning.

Therefore, the correct answer is mental curiosity vs. systematic research.

Quick Tip

Differentiate between pure research (for knowledge) and applied research (for societal benefit).

46. Idle curiosity means

- A. curiosity is lazy.
- B. idle people are curious.
- C. curiosity is apt.
- D. casual curiosity.

Correct Answer: (D) casual curiosity

Solution:

Step 1: Understanding the phrase in the passage.

The passage begins by saying, “The world dismisses curiosity by calling it idle, or mere idle curiosity – even though curious persons are seldom idle.” Here, the author emphasizes that although curiosity is often labelled as “idle,” in reality, people who are curious are not lazy. Instead, the phrase “idle curiosity” is society’s way of belittling or trivializing curiosity by calling it insignificant.

Step 2: Analyzing the word ‘idle’.

The word “idle” in this context does not mean laziness in the literal sense. Instead, it implies that the curiosity is seen as “casual, pointless, or without serious purpose.” Thus, “idle curiosity” refers to curiosity that is perceived as casual or not worth pursuing, even though in truth, curiosity is what drives intellectual discovery.

Step 3: Eliminating the wrong options.

- Option (A) “curiosity is lazy” – Incorrect, because the author explicitly states that curious people are not idle.
- Option (B) “idle people are curious” – Incorrect, because this reverses the intended meaning. It is not about idle people, but about curiosity being labelled idle.
- Option (C) “curiosity is apt” – Incorrect, as “apt” means suitable, which does not match the intended meaning of “idle curiosity.”
- Option (D) “casual curiosity” – Correct, because the author uses “idle curiosity” to mean casual, seemingly purposeless curiosity dismissed by others.

Therefore, the correct meaning of “idle curiosity” is casual curiosity.

Quick Tip

In vocabulary-based questions, always interpret words in the context of the passage. The phrase “idle curiosity” here does not mean laziness, but rather a dismissive view of curiosity as casual or unimportant.

47. Find the correct match of definition/meaning with usage for the word: WOULD

1) willingness	5) He would go for a walk even when it was raining.
2) obstinacy persistence	6) He would do as you say
3) determination	7) He beat the ox, but it wouldn't move
4) improbable or real condition	8) If you came across a snake what would you do?

- (A) 1-8, 2-5, 3-6, 4-6
(B) 1-6, 2-7, 3-5, 4-8
(C) 1-5, 2-7, 3-8, 4-6
(D) 1-7, 2-5, 3-6, 4-8

Correct Answer: (D) 1-7, 2-5, 3-6, 4-8

Solution:

The word “would” has multiple meanings depending on the context: - **Willingness (1-7):** “He beat the ox, but it wouldn’t move.” Here, “wouldn’t” indicates refusal or unwillingness.
- **Obstinacy persistence (2-5):** “He would go for a walk even when it was raining.” The repeated action despite obstacles shows persistence.
- **Determination (3-6):** “He would do as you say.” This reflects determination or resolution to act.
- **Improbable or real condition (4-8):** “If you came across a snake what would you do?” This clearly shows a conditional situation.
Thus, the correct mapping is 1-7, 2-5, 3-6, 4-8.

Quick Tip

“Would” is a versatile word—check if it shows willingness, persistence, determination, or condition in context.

48. Choose the most appropriate passive construction of the sentence: ‘He is doing his job well.’

- (A) His job is done well by him.
- (B) His job is being done well.
- (C) He has been doing his job well.
- (D) His job is being well done.

Correct Answer: (A) His job is done well by him.

Solution:

The given sentence is in the present continuous tense (active voice): “He is doing his job well.”

When converted to passive voice: - The subject “He” becomes the agent (“by him”).

- The object “his job” becomes the subject of the passive sentence.

- The continuous aspect changes to a structure that conveys the same meaning in the passive.

Thus, the correct passive form is: His job is done well by him.

Analysis of options: - (B) “His job is being done well” omits the agent “by him.”

- (C) “He has been doing...” is not passive, but present perfect continuous (wrong).

- (D) “His job is being well done” is grammatically fine but not the precise passive equivalent.

Quick Tip

In passive voice, always check: Object → Subject, Verb → Passive form, Subject → Agent (by + doer).

49. There are three underlined words below, followed by their usages. Determine the sentences in which the use of words is correct or appropriate: Pray. Prey. Prying.

A. If you pray with faith, they say, it will be answered.

B. He has fallen a prey to cheats.

C. Prying into the affairs of others is bad.

(A) A and B

(B) A and C

(C) A, B and C

(D) B and C

Correct Answer: (C) A, B and C

Solution:

- Sentence A: Correct. “Pray” means to make a request to God or to worship. The usage is proper.

- Sentence B: Correct. “Prey” means victim. The phrase “fallen a prey to cheats” is idiomatic and correct.

- Sentence C: Correct. “Prying” means interfering or nosy behavior. The usage “prying into affairs of others” is accurate.

All three are used appropriately, so the correct choice is A, B and C.

Quick Tip

Confusing words can be mastered by checking context: “Pray = worship,” “Prey = victim,” “Prying = interfering.”

Instructions [50 - 54]

The following is an excerpt from a recent article by David Ewing Duncan. Read the passage and answer the questions within its context.

Eye surgeon Virendar Sangwan has perfected a procedure so cutting-edge that most who have tried it have failed. In an operating theatre in the central Indian city of Hyderabad, he

surgically implants corneas grown in a petri dish from stem cells by his colleague Geeta Vemuganti in patients with damaged eyes. Together they perform about 80 corneal regeneration procedures a year, making the L.V. Prasad Eye Institute, where they work, one of the most prolific facilities in the world using stem cells to regenerate tissues of any kind. The Sangwan-Vemuganti team uses stem cells found in the tissues of living adults, not ones derived from embryos. Teams all over the world are working with adult stem cells, trying to coax them to regrow cells in hearts, brains, livers and other organs, but progress is slow. Besides corneas, scientists have had some success regrowing skin cells and bone tissues, but those procedures remain experimental. “A number of programs around the world have tried to perfect this treatment, but they have had bad outcomes,” says University of Cincinnati eye surgeon and stem cell specialist Edward Holland. “It is impressive what they are doing at Prasad.” In addition to the Hyderabad project, only Holland’s program and a half-dozen others in the world conduct operations using corneas grown from stem cells. The treatment uses stem cells harvested from the limbus, located where the cornea touches the white of the eye. For those with damaged corneas, these cells - called “limbic” and “conjunctiva” - are harvested from a patient’s good eye, if he has one, or from a close relative. They are placed in a petri dish and chemically tweaked to grow into the lower layer of a cornea, called epithelium. It is then transplanted into the eye of the patient where in most cases it takes hold and grows. In 56% of the cases at the Prasad Institute, patient could still see clearly after 40 months later.

Indians are well known for reverse engineering, meaning they can deduce how drugs are made in order to produce generic versions. But in this case, Sangwan and Vemuganti, a pathologist, developed the technique on their own from reading papers and running experiments in the lab. Sangwan says he had a number of patients with burned eyes who could not be helped with standard corneal transplants from cadavers, so he persuaded Vemuganti to try growing corneas in her lab. “You know how to grow cells, and I know how to do the transplant surgery,” Vemuganti recalls him saying. “Why don’t we work together?” She smiles and shakes her head. “I had no clue if this was going to work.” Vemuganti’s major innovation was developing a platform on which to grow corneas. First she designed a circular glass tube about the size of a stack of coins. Then she overlaid the glass with tissue

from a human placenta which is “a good surface to grow corneas on.” She says. After that she placed stem cells in four places around a circle, added a growth medium, and watched the corneas begin to grow. Commercial interests among stem cell companies for the procedure has been scant because of the perceived small volume of patients, says venture capitalist Antoun Nabhan of ay Capital, who sits on the board of Cellerant, a leading stem cell company in San Carlos, Calif. But corneal stem cell treatment may have wider applications, say ophthalmologist Ivan Schwab of University of California at Davis. “These stem cells are similar to others in the body that make mucous membrane,” he says. “These techniques of growing stem cells might one day be used to treat mucous-membrane tissue in the sinuses, bladder, and other organs.”

50. According to the article Sangwan-Vemuganti team’s cutting-edge procedure of implanting cornea grown from stem cells is considered a major advancement by the experts because

- A. They derive stem cells from embryos.
- B. Their labs are customised to grow stem cells.
- C. They regrow cells in hearts, brains, livers with stem cells from tissues of living adults.
- D. They derive stem cells from tissues of living adults and grow cells in labs.

Correct Answer: (D) They derive stem cells from tissues of living adults and grow cells in labs

Solution:

Step 1: Extracting the relevant detail from the passage.

The passage clearly mentions: “The Sangwan-Vemuganti team uses stem cells found in the tissues of living adults, not ones derived from embryos. Teams all over the world are working with adult stem cells, trying to coax them to regrow cells in hearts, brains, livers and other organs, but progress is slow. Besides corneas, scientists have had some success regrowing skin cells and bone tissues, but those procedures remain experimental.”

Step 2: Understanding the uniqueness of the advancement.

Most previous research was either based on embryonic stem cells or on experimental attempts in other tissues (like heart or brain) with limited success. What makes the

Sangwan-Vemuganti team's work remarkable is: - They avoided ethical controversy by not using embryonic stem cells.

- They harvested stem cells from living adults (from the patient's own eye or a relative's eye).
- They successfully cultivated these adult stem cells in lab conditions to regenerate functional corneal tissue.
- This led to practical success: about 80 corneal regeneration procedures a year, with 56% patients maintaining clear vision even after 40 months.

Step 3: Eliminating incorrect options.

- Option (A): Incorrect, because they do not use embryonic stem cells; the passage explicitly rejects this.
- Option (B): Incorrect, as the uniqueness is not merely that labs are customised, but rather the source and success of stem cells.
- Option (C): Incorrect, because while other teams attempt regrowth of organs like hearts and brains, this team's success is in corneal regeneration, not in those organs.
- Option (D): Correct, as they specifically derive stem cells from living adults and grow them in lab conditions to regenerate corneal tissue.

Hence, the cutting-edge advancement lies in their ability to use adult stem cells (not embryonic) and grow corneal tissues successfully in the lab.

Correct Answer: D

Quick Tip

When answering comprehension-based science questions, focus on what makes the process unique compared to others mentioned. Here, the innovation lies in avoiding embryos and achieving success with adult stem cells in corneal regeneration.

51. Sangwan-Vemuganti procedure is carried out on

- A. Patients requiring any corneal transplant
- B. Patients with damaged corneas
- C. Patients with damaged eyes of any kind

D. None of the above

Correct Answer: (C) Patients with damaged eyes of any kind

Solution:

Step 1: Identify reference in passage.

The passage mentions: “he surgically implants corneas grown in a petri dish from stem cells by his colleague Geeta Vemuganti in patients with damaged eyes.” This clearly highlights the target group.

Step 2: Compare with answer options.

- Option A suggests “any corneal transplant” but the passage specifies “damaged eyes,” not all corneal transplants.
- Option B is narrower—only corneal damage, but the passage mentions “damaged eyes” in general.
- Option C exactly matches the phrase “patients with damaged eyes.”
- Option D is invalid as Option C is supported by the text.

Step 3: Conclusion.

Therefore, the correct choice is C.

Correct Answer: C

Quick Tip

Always look for exact wording in the passage. The phrase “patients with damaged eyes” directly eliminates narrower or broader options.

52. The world recognises this Indian innovation because Indian scientists are normally known

- A. To be good at analysing and finding out a method of how an existing drug is made.
- B. As they are good researchers of drugs.
- C. As they are good at carrying out experiments to create generic drugs.
- D. As they are able to carry out drug trials on large samples.

Correct Answer: (A) To be good at analysing and finding out a method of how an existing drug is made.

Solution:

Step 1: Evidence from the passage.

The text states: “Indians are well known for reverse engineering, meaning they can deduce how drugs are made in order to produce generic versions.”

Step 2: Connect with options.

Reverse engineering = analysing and finding out how existing drugs are made. This fits Option A exactly.

Step 3: Eliminate wrong choices.

- B is vague, not explicitly supported.
- C shifts focus to experiments for generics, which is not the emphasis.
- D mentions trials, not related to reverse engineering.

Thus, Option A is correct.

Correct Answer: A

Quick Tip

Reverse engineering = analysing existing methods, not inventing new ones or conducting trials.

53. The pathologist, Vemuganti, started growing cornea in a petri dish

- A. By following procedures published in research papers
- B. By inventing a totally new procedure
- C. By experimenting with procedures published in journals
- D. By following the instruction of the transplant surgeon

Correct Answer: (C) By experimenting with procedures published in journals

Solution:

Step 1: Look at the passage.

It says: “Sangwan and Vemuganti developed the technique on their own from reading papers and running experiments in the lab.”

Step 2: Interpretation.

This means they referred to research/journal papers and then actively experimented. Hence, not merely following instructions, but testing through experiments.

Step 3: Elimination.

- A is passive (just following papers).
- B is incorrect, as they did not invent something entirely new.
- D is unsupported.

So Option C is best.

Correct Answer: C

Quick Tip

Pay attention to verbs like “reading” and “running experiments” → indicates experimentation, not blind following.

54. In the context of the passage choose the correct set of meanings for the words:

PLATFORM and GENERIC

- A. Lab table; related to genes
- B. Method; related to genes
- C. Lab experiments; without a brand name
- D. Methodology; without a brand name

Correct Answer: (D) Methodology; without a brand name

Solution:

Step 1: Meaning of “platform.”

In the line, “developing a platform on which to grow corneas,” platform means a systematic procedure or methodology, not a physical object.

Step 2: Meaning of “generic.”

The text mentions producing “generic versions” of drugs. In pharmaceutical context, generic = without a brand name.

Step 3: Select the pair.

Only D matches: platform = methodology; generic = without brand name.

Correct Answer: D

Quick Tip

For vocabulary-in-context, always check domain-specific meanings (here, medical/pharmaceutical).

55. Choose the option which is closest in meaning to the word **SUBTLE**

- A. Innocent
- B. Elusive
- C. Dangerous
- D. Insidious

Correct Answer: (D) Insidious

Solution:

Step 1: Recall meaning of “subtle.”

Subtle = delicate, not obvious, difficult to detect, often gradual in effect.

Step 2: Check each option.

- A “innocent” = unrelated meaning.
- B “elusive” = hard to grasp, but not always “subtle.”
- C “dangerous” = opposite in tone.
- D “insidious” = gradual, hidden, not obvious → closest to “subtle.”

Thus, the correct synonym is “insidious.”

Correct Answer: D

Quick Tip

In synonym questions, focus on contextual nuance: “subtle” = understated/hidden → “insidious” matches best.

56. The following sentence has a missing punctuation mark, choose the right answer.

My mother who is from the village is very superstitious

- A. Brackets
- B. Comma
- C. Semicolon
- D. Apostrophe

Correct Answer: (B) Comma

Solution:

Step 1: Identify the clause.

The phrase “who is from the village” is a non-defining (non-restrictive) relative clause. Non-defining clauses give additional information about a noun but do not change the essential meaning of the sentence.

Step 2: Rule of punctuation.

Non-defining clauses are always separated by commas. For example: - “My father, who is a doctor, works at the city hospital.” - “Delhi, which is the capital of India, is very crowded.”

Step 3: Apply rule to the given sentence.

Corrected version: “My mother, who is from the village, is very superstitious.”

Step 4: Eliminate wrong options.

- A (Brackets): Not suitable, since relative clauses are not enclosed in brackets in formal writing.
- C (Semicolon): A semicolon is used between two independent clauses, not inside a single sentence with a relative clause.
- D (Apostrophe): Apostrophes show possession or contractions, not clause separation.

Thus, the missing punctuation mark is a **comma**.

Correct Answer: B

Quick Tip

Always check if a clause adds extra, non-essential information. If yes, use commas to set it apart from the main sentence.

57. For the pair of sentences below choose the right option.

1. Those are them.

2. Those are they.

A. The first sentence has an error.

B. The second sentence is erroneous.

C. Both sentences are incorrect.

D. Both sentences are correct.

Correct Answer: (A) The first sentence has an error.

Solution:

Step 1: Understand the grammatical structure.

The sentence “Those are ...” has a linking verb (“are”), which connects the subject “those” with a complement. After a linking verb, we use the **subjective (nominative) case** of pronouns, not the objective case.

Step 2: Examine Sentence 1.

“Those are them.” → “Them” is an **objective pronoun**, used as the object of a verb or preposition. Example: “I saw them.”

Here, “them” is incorrectly used as a subject complement.

Step 3: Examine Sentence 2.

“Those are they.” → “They” is a **subjective pronoun**, which is correct after a linking verb.

For example: - “It is I.” (formal, nominative) - “Those are they.” (formal, nominative)

Step 4: Eliminate wrong options.

- B is incorrect, because the second sentence is actually correct.

- C is wrong, because one of the sentences is correct.

- D is wrong, because the first sentence has a clear error.

Therefore, only the first sentence has an error.

Correct Answer: A

Quick Tip

After linking verbs like “is” or “are,” always use the subjective pronoun form (I, he, she, they), not the objective form (me, him, her, them).

Instructions [58 - 62]

Read the following passage and answer within its context.

TRIPs agreement provides a comprehensive set of global trade rules for the protection of copyright patents, trademarks, industrial designs, trade secrets, semiconductor lay out designs, and geographical indications, that apply to all the number-countries irrespective of their levels of development, natural and human endowments and history. Every member-country has been asked by the WTO to amend its national patent law to confirm to that universal globalized format for legislation relating to pharmaceutical, agrochemical, food, alloys, etc. Under Article 65, the developed countries have been asked to change their laws within another five years, and the less developed countries within an additional five years. The least developed countries have been asked to make those changes by 2005 AD. This attempt at global standardisation and uniformity by way of TRIP’s agreement is in conflict with the main thrust of the Rio Earth Summit of 1992 that set out the conditions for sustainable development. These two reveal two contrasting types of international approaches and norms. While the 1992 Earth Summit and the 1993 convention on biodiversity (CBD) focused on ‘diversity’ as being fundamental to sustain life and development, TRIPs and WTO are pushing for ‘conformity’ to international standardized norms on patents, services, labour, investment and what not irrespective of their history, ecology, level of economic development, etc. But despite their diametrically opposed viewpoints, 170 countries signed CBD upholding the need for diversity, and 50 countries signed the TRIPs agreement in 1994 claiming the urgency of uniformity, with a very large element of common names (130) in both. The convention on bio-diversity (CBD) in its Article 16.5 specifically asserts that

intellectual property right must not be in conflict with conservation and sustainable use of bio-diversity, a provision that has been totally ignored by those who composed the TRIPs agreement. While in case of agriculture the higher yield of patented products induces the farmers to switch form a more varied production pattern, the resulting narrowing of genetic base makes the economy and society more vulnerable to plant disease and epidemics. It is true that the move towards cultivation of a smaller number of higher yielding varieties and the uniform spread of the same variety over a large space predates the present debate on patent, particularly since the introduction of the green revolution technology in the mid-sixties, but there can be no doubt that the latter has brought about a qualitative change in the scenario and has created possibility of a vast quantitative change too in that direction. So far no attempt has been made to reconcile the two conflicting approaches of CBD and TRIPs. If diversity is so important for sustaining life, how can WTO demand conformity to standardised global formats?

58. The author points out that intellectual property rights and their administration mechanism

- A. is throttling the interest of global bio-diversity
- B. is working to help sustain global bio-diversity
- C. is being sustained by global bio-diversity
- D. is what the global bio-diversity needs

Correct Answer: (A) is throttling the interest of global bio-diversity

Solution:

Step 1: Identify the core idea of the passage.

The passage contrasts two approaches: - The **TRIPs agreement and WTO**, which emphasize *uniformity* and *conformity* to standardized global patent laws. - The **Rio Earth Summit and the Convention on Bio-diversity (CBD)**, which emphasize *diversity* as fundamental to sustaining life.

Step 2: Look at the effect of TRIPs.

The TRIPs agreement requires every country to conform to a common global framework for patents and intellectual property rights. The text highlights that this framework tends to

ignore ecological, historical, and developmental differences across countries.

Step 3: Conflict with biodiversity.

The Convention on Bio-diversity (CBD), particularly in Article 16.5, clearly states that intellectual property rights must not conflict with conservation and sustainable use of bio-diversity. However, the passage stresses that TRIPs *ignores* this, pushing for standardization at the expense of diversity.

Step 4: Narrowing of genetic base in agriculture.

The author gives the example of agriculture: patented high-yield products push farmers towards fewer crop varieties. This narrows the genetic base, making crops more vulnerable to diseases and epidemics. This directly **throttles biodiversity**.

Step 5: Elimination of wrong options.

- Option B: Incorrect, because TRIPs does not sustain biodiversity—it undermines it.
- Option C: Wrong, because biodiversity is not sustaining intellectual property rights; rather the opposite conflict is shown.
- Option D: Wrong, because global biodiversity does not *need* intellectual property conformity. In fact, it needs protection from such conformity.

Thus, the author's point is that intellectual property rights under TRIPs are **restricting and harming global biodiversity**, i.e., throttling it.

Correct Answer: A

Quick Tip

Always contrast the two positions: TRIPs seeks *uniformity*, while CBD emphasizes *diversity*. When the question asks about impact, remember that uniform patent regimes reduce genetic and ecological diversity.

59. Which of the following has been said by the author in the passage?

- A. A high number of countries have signed both CBD and TRIPs, two conflicting treaties.
- B. A narrow genetic base, if stuck to for long, is fraught with danger.
- C. Although a nondiscriminatory approach has been followed in the applicability of TRIPs,

there has been a confessional attitude in prescribing a time frame for Transition, as per needs of the respective countries.

D. The author is supportive of international conventions and treaties such as TRIPs, CBD etc.

Correct Answer: (D) The author is supportive of international conventions and treaties such as TRIPs, CBD etc.

Solution:

Step 1: Recall the author's tone.

The passage emphasizes the importance of biodiversity (CBD) and criticizes TRIPs for ignoring it. However, the author still acknowledges the role of international conventions and treaties in addressing global issues.

Step 2: Elimination of options.

- (A) Partially true, but the author does not merely highlight this as the main idea.
- (B) Though mentioned, it is an example, not the main statement being made.
- (C) Incorrect – the author never mentions “confessional attitude” or similar.

Step 3: Validation of option D.

The author recognizes both CBD and TRIPs as major international conventions and comments on the conflict between them. This shows support for the process of global treaties, even if critical of their contradictions.

Correct Answer: D

Quick Tip

Always identify whether the author is merely providing an example or actually making a broader evaluative statement. The author's support for conventions is broader than a single factual point.

60. Out of the countries that signed CBD, the percentage of those that signed the TRIPs also, is

A. 76.5

- B. 74.5
- C. 78.5
- D. 80.2

Correct Answer: (A) 76.5

Solution:

Step 1: Extract numerical data.

- Number of countries signing CBD = 170
- Number of countries signing both CBD and TRIPs = 130

Step 2: Apply percentage formula.

$$\text{Percentage} = \frac{130}{170} \times 100$$

Step 3: Simplify.

$$\frac{130}{170} \times 100 = 76.47 \approx 76.5$$

Correct Answer: A (76.5)

Quick Tip

In percentage problems, always carefully identify the base (here, countries signing CBD = 170).

61. According to the author, a higher-yield seed variety is not always welcome as it also ultimately leads to

- A. diseases among the consumers.
- B. diseases among the plants.
- C. monopoly of developed countries.
- D. monopoly of developing countries.

Correct Answer: (B) diseases among the plants

Solution:

Step 1: Recall relevant passage section.

The text states that higher yield patented seeds push farmers towards fewer crop varieties. This narrows the genetic base.

Step 2: Consequence of genetic narrowing.

A smaller genetic pool makes crops more vulnerable to diseases and epidemics. Thus, plant diseases increase.

Step 3: Elimination of wrong options.

- (A) Wrong – the diseases are not among consumers but among plants.
- (C) (D) – Not mentioned in this context.

Correct Answer: B

Quick Tip

Link “narrowing of genetic base” with “vulnerability to plant diseases.” This is a common agricultural economics concept.

62. As per the TRIPs agreement not much differentiation is made between a developed country such as the USA and an undeveloped country such as Sudan. This is

- A. definitely true
- B. probably true
- C. probably false
- D. definitely false

Correct Answer: (D) definitely false

Solution:

Step 1: Look back at Article 65 of TRIPs.

The passage clearly mentions that different categories of countries were given different time frames: - Developed: 5 years

- Developing: Additional 5 years

- Least developed: Another 5 years more

Step 2: Implication.

This shows that TRIPs *does differentiate* between developed, developing, and least developed nations.

Step 3: Conclusion.

Since differentiation does exist, the claim that “not much differentiation is made” is definitely false.

Correct Answer: D

Quick Tip

When a passage refers to different deadlines for different country categories, it proves differentiation exists.

63. A single word equivalent for the statement ‘Speak falsely with deliberate intent’ is

- (A) repudiate
- (B) prevaricate
- (C) disparage
- (D) equivocate

Correct Answer: (D) equivocate

Solution:

The word “equivocate” means to use ambiguous or misleading language deliberately in order to hide the truth or avoid giving a clear answer. This matches the idea of “speaking falsely with deliberate intent.”

- **Repudiate** means to reject or disown.
- **Prevaricate** means to evade the truth, but not necessarily with deliberate falsity.
- **Disparage** means to belittle or insult someone.
- **Equivocate** is the most accurate term for speaking falsely with intent.

Therefore, the correct answer is Equivocate.

Quick Tip

“Equivocate” is often used in contexts where a person gives vague, misleading answers to avoid commitment.

64. Identify the option with the correct spelling.

- (A) paraphenalia
- (B) progame
- (C) pediatrics
- (D) beserk

Correct Answer: (C) pediatrics

Solution:

Among the given words, only “pediatrics” is spelled correctly. The others are misspelled:

- Option A should be **paraphernalia**.
- Option B should be **programme**.
- Option D should be **berserk**.

Thus, the correct spelling is pediatrics.

Quick Tip

Spelling questions often test common tricky words; focus on suffixes like “-ia,” “-mme,” etc.

65. Which two sentences in the following convey the same idea?

1. Wasn’t there any checking at the airport?
2. I want to know if there was any checking at the airport.
3. I wonder if there should have been any checking at the airport.
4. There should have been checking at the airport.

(A) 2, 3

- (B) 1, 2
- (C) 3, 4
- (D) 2, 4

Correct Answer: (B) 1, 2

Solution:

- Sentence 1 (*Wasn't there any checking at the airport?*) expresses doubt or inquiry about the presence of checking.
- Sentence 2 (*I want to know if there was any checking at the airport.*) conveys the same meaning in a more direct way.

Both reflect curiosity about whether checking took place.

- Sentence 3 is about wondering if checking should have been conducted (different context).
- Sentence 4 indicates that checking ought to have happened (a judgment statement).

Thus, the same idea is conveyed by sentences 1 and 2.

Therefore, the correct answer is 1, 2.

Quick Tip

Look for semantic equivalence—two sentences may be phrased differently but still ask or state the same thing.

66. Choose the grammatically correct sentence.

- (A) You should at once report it to the concerned authority.
- (B) You should report it at once, to the authority concerned.
- (C) You should report it at once, to the concerned authority.
- (D) You should at once report it to the authority concerned.

Correct Answer: (D) You should at once report it to the authority concerned.

Solution:

Grammatically, the most precise expression is option D. Here:

- “At once” is placed correctly, immediately after “should.”
- “The authority concerned” is the proper idiomatic expression in English, unlike “concerned authority.”
- Options A and C have awkward word placement.
- Option B uses a comma unnecessarily, making the sentence less fluent.

Thus, the correct grammatical structure is option D.

Therefore, the correct answer is You should at once report it to the authority concerned..

Quick Tip

Always prefer standard idiomatic expressions in English, such as “the person concerned” instead of “concerned person.”

67. Find the correct match of grammatical function with usage for the word: AFTER

Grammatical function – Usage

- 1) adjective – (6) It appears to be the after effect of the disease.
- 2) adverb – (8) He came soon after.
- 3) conjunction – (5) You may go after having your lunch.
- 4) preposition – (7) Many graduates are hankering after jobs.

- (A) 1-8, 2-5, 3-6, 4-7
 (B) 1-6, 2-5, 3-8, 4-7
 (C) 1-5, 2-8, 3-7, 4-6
 (D) 1-6, 2-8, 3-5, 4-7

Correct Answer: (D) 1-6, 2-8, 3-5, 4-7

Solution:

- **Adjective:** “after effect” (*the after effect of the disease*) – here “after” qualifies “effect.”
- **Adverb:** “He came soon after” – here “after” modifies the verb “came.”
- **Conjunction:** “You may go after having your lunch” – here “after” joins two clauses.
- **Preposition:** “hankering after jobs” – here “after” shows relation to the object “jobs.”

Thus, the correct match is $1 - 6, 2 - 8, 3 - 5, 4 - 7$.

Quick Tip

Words like “after” are versatile; always check context to identify whether they function as adjective, adverb, conjunction, or preposition.

68. NEOPHYTE is the opposite of

- A. student
- B. clown
- C. veteran
- D. professional

Correct Answer: (C) veteran

Solution:

Step 1: Meaning of the word “Neophyte.”

The term *neophyte* refers to a beginner, novice, or someone new to a particular activity, subject, or belief.

Step 2: Look for the opposite meaning.

We must find a word that represents experience or expertise, i.e., the opposite of being new.

Step 3: Check the given options.

- (A) Student → A student is a learner, but not necessarily the opposite of a neophyte. Many students are also beginners.
- (B) Clown → Refers to a comic entertainer, unrelated in meaning. Not an opposite.
- (C) Veteran → A veteran is a person with long experience in a field. This is the exact opposite of a neophyte.
- (D) Professional → A professional may or may not be a beginner, so not necessarily the opposite.

Step 4: Confirm answer.

Thus, the best opposite of “neophyte” is “veteran.”

Correct Answer: C (veteran)

Quick Tip

When solving antonym questions, focus on the *core meaning* of the word. A “neophyte” is defined by inexperience, so its opposite must emphasize extensive experience, which is “veteran.”

69. Find the maximum number of times that any one of the given words fits the set of sentences.

Words: disabled, flimsy, crippled, lame

1. Don't make _____ excuses.
2. Liberalization may have _____ smaller manufacturers.
3. Being a defaulter at the stock exchange makes him a _____ duck.
4. A _____ person may limp.

- A. in all the four sentences
- B. in three sentences
- C. in two sentences
- D. in only one

Correct Answer: (C) in two sentences

Solution:

Step 1: Sentence 1.

“Don't make _____ excuses.” → The word “lame” fits here (commonly used as “lame excuses”).

Step 2: Sentence 2.

“Liberalization may have _____ smaller manufacturers.” → The word “crippled” fits here (economic changes can cripple small manufacturers).

Step 3: Sentence 3.

“Being a defaulter . . . makes him a _____ duck.” → The idiomatic phrase is “lame duck.”

Thus, “lame” fits here.

Step 4: Sentence 4.

“A _____ person may limp.” → The word “crippled” is appropriate here.

Step 5: Conclusion.

- “Lame” fits sentences 1 and 3.
- “Crippled” fits sentences 2 and 4.

Thus, each word fits a maximum of 2 sentences.

Correct Answer: C (two sentences)

Quick Tip

When words are tested across multiple sentences, focus on idiomatic usage (like “lame duck,” “lame excuse”) as well as literal meanings (like “crippled person”).

70. Which of the following does not make a sensible word/ phrase when added to the given word?

Word: FIRE

- A. fly
- B. engine
- C. stick
- D. escape

Correct Answer: (C) stick

Solution:

Step 1: Test combinations.

- “Firefly” → a valid word, an insect that glows.
- “Fire engine” → valid word, a vehicle used to put out fires.

- “Fire stick” → does not form a common or sensible phrase in English. It is not a standard dictionary-recognized combination.
- “Fire escape” → valid phrase, a staircase for emergency exits.

Step 2: Eliminate valid ones.

Only “stick” fails to form a proper, accepted collocation with “fire.”

Correct Answer: C (stick)

Quick Tip

When solving such questions, always test each option by combining it with the base word to see if it forms a common compound word or phrase.

71. Arrange the sentence 1,2,3,4 to form a logical sequence between sentences I and II. Choose the alternative where the four combinations make a meaningful sentence.

I. We all value having the freedom 1) which many of us fail to honour

2) to make the choices we want in our careers

3) but with great freedom comes great responsibility

4) so most companies fall prey to the policies which become rigid

II. and that’s probably one reason we find most companies not following what they preach

A. 1, 3, 4, 2

B. 2, 3, 1, 4

C. 1, 4, 2, 3

D. 3, 2, 1, 4

Correct Answer: (B) 2, 3, 1, 4

Solution:

Step 1: Start with I.

The sentence begins: “We all value having the freedom . . .” This naturally connects with option (2) “to make the choices we want in our careers.”

Step 2: Logical continuation.

After acknowledging freedom of choice, it makes sense to add caution: (3) “but with great freedom comes great responsibility.”

Step 3: Next link.

Then comes a limitation: (1) “which many of us fail to honour.” This logically follows because people often fail to uphold responsibility.

Step 4: Consequence.

Finally, (4) “so most companies fall prey to the policies which become rigid.” This consequence flows directly from the failure mentioned.

Step 5: Concluding with II.

This sequence now links smoothly to II: “and that’s probably one reason we find most companies not following what they preach.”

Thus, the correct sequence is: $2 \rightarrow 3 \rightarrow 1 \rightarrow 4$.

Correct Answer: B (2, 3, 1, 4)

Quick Tip

For sentence arrangement questions, always check for: 1. Natural opening after the given sentence, 2. Logical flow of ideas (reason \rightarrow effect), 3. Smooth connection to the closing sentence.

Instructions [72 - 74]

Read the edited excerpt of an article by NELSON VINOD MOSES and answer the questions in this context.

A successful non-resident Indian employed in the United States returns to a backward Indian village and transforms the lives of the villagers. Sounds familiar? At 31, Ashwin Naik is pacing through the path Shah Rukh Khan traced in his off-beat Bollywood movie, *Swades*. Naik had just quit his cushy job in a genomics firm in the US to join MIT Sloan School of Business. With a month in hand, he headed home and travelled through the remote areas of Bagalkot district in Karnataka. The woeful social conditions he saw moved him. Naik chucked the MBA course and in six months set up Vaatsalya Healthcare, a rural healthcare

delivery system. In February 2005, Vaatsalya's first hospital opened in Hubli. Two more centres were opened in Gadag and Karwar to offer specialist services of surgeons and facilities such as physiotherapy for children suffering from cerebral palsy. "We introduced paediatric surgery for infants below six months," says Naik. "Else, patients would have to be taken to distant cities of Hubli or Bangalore." Naik plans 100 more units in five states in the next three years. Mere charity by an affluent, middle-class professional? Far from it.

Vaatsalya is one among rapidly spreading 'for profit' social enterprises that serve the poor and bring in profit. Mumbai-based Ziqitza, an imbalance services company, is another. It never refuses a patient for money, and charges Rs. 50 to 200. Done fleetingly in India and elsewhere till now, entrepreneurial minds with a social conscience are methodically creating such models at a greater pace. "There has been a boom in the past two years," says Varun Sahni, country director of Acumen Fund, a US based social fund that invests in companies that target low income communities. "Currently, there are about 1,000 in India." The timing seems perfect. There is a wide market acceptance and funding has been coming in easily. These enterprises work across a swathe of areas including healthcare, education, rural energy, agriculture, arts and crafts, banking and more. 'For profit' entrepreneurs are obsessed with social and environmental impact in addition to the financial returns. Since they are answerable to the investors, they try expanding the business rapidly. SKS Microfinance, for instance, started in 1998 and has now over 900,000 customers, 440 branches and an outstanding loan disbursement of over Rs. 452 crores as of August 2007.

72. Identify the appropriate business model of the kind of enterprise described by the author.

- A. Servicing societies at no profit
- B. Profiting from poor people
- C. Setting up enterprises for masses of low-income groups on experimental basis
- D. Setting up enterprises for social causes for profit and expand rapidly

Correct Answer: (D) Setting up enterprises for social causes for profit and expand rapidly

Solution:

Step 1: Understanding the passage.

The passage highlights Vaatsalya Healthcare and other enterprises like Ziqitza, which are **“for profit social enterprises”**. They are not simply charities but operate in a structured, scalable way.

Step 2: Core model of such enterprises.

They focus on healthcare, education, rural energy, microfinance etc., with the dual aim: 1. To serve low-income and rural populations.

2. To remain financially viable by generating profit.

Step 3: Selecting the option.

Option A talks about “no profit” – incorrect.

Option B misrepresents the aim – they don’t exploit poor people.

Option C is about experiments – but these enterprises are scalable, not just experiments.

Option D matches perfectly: “social causes for profit and expand rapidly.”

Correct Answer: D

Quick Tip

For such RC-based business model questions, look for key terms like “for profit social enterprise” or “rapid expansion” in the passage. These help eliminate distractors that talk about charity or experiments.

73. Which of the following companies does not illustrate the idea explained by the author?

- A. SKS Micro finance
- B. Acumen Fund
- C. Ziqitza
- D. Vaatsalya Healthcare

Correct Answer: (B) Acumen Fund

Solution:

Step 1: Main idea in the passage.

The author emphasizes **“for profit social enterprises”** that serve poor people but also ensure business growth. Examples given: Vaatsalya Healthcare, Ziqitza, SKS Microfinance.

Step 2: Identifying the outlier.

Acumen Fund is described as a US-based **social fund** that invests in companies. It is not itself an enterprise delivering direct services but rather a funding institution.

Step 3: Elimination.

- SKS Microfinance = directly serves poor + profit = fits.
- Ziqitza = imbalance services, charges patients = fits.
- Vaatsalya Healthcare = rural hospitals, profit-based = fits.
- Acumen Fund = only an investor fund = does not illustrate the entrepreneurial idea.

Correct Answer: B

Quick Tip

When asked “does not illustrate” in RC, always compare each option with the core idea of the passage. Look for the odd one out that doesn’t match the author’s emphasis.

74. According to the author, which of the following options describes ‘for profit’ entrepreneurs most appropriately?

- A. NRI’s paying back to their motherland
- B. Those affluent, middle-class professionals treating it as charity
- C. Those who work towards getting financial returns on social business by expanding quickly
- D. Those who have sympathetic investors for their business ideas for poor

Correct Answer: (C) Those who work towards getting financial returns on social business by expanding quickly

Solution:

Step 1: Key phrase in the passage.

The passage explicitly states: **“For profit entrepreneurs are obsessed with social and environmental impact in addition to the financial returns. Since they are answerable to**

investors, they try expanding the business rapidly.”

Step 2: Matching with options.

- Option A: Focuses on NRIs giving back, not relevant.
- Option B: Treating it as charity is opposite of “for profit.”
- Option C: Matches exactly — emphasis on financial returns + rapid expansion.
- Option D: Talks about sympathetic investors, which is not the focus.

Step 3: Conclusion.

Hence, option C is the most appropriate.

Correct Answer: C

Quick Tip

For “most appropriate” type RC questions, always match keywords from the passage (like “financial returns” and “expand rapidly”) with the given options.

75. A contextual usage is provided for the word below. Pick the word that is most inappropriate.

MALINGER: The young man made it a point to mangle in spite of the assigned work load.

- A. Wander
- B. Laze
- C. Evade
- D. Argue

Correct Answer: (D) Argue

Solution:

Step 1: Meaning of ”Mangle”.

Mangle means to pretend to be ill in order to escape duty or work. It is associated with avoiding responsibility.

Step 2: Checking each option.

- Wander: to roam aimlessly, which is still a way of avoiding work.

- Laze: to spend time idly or lazily, consistent with malingering.
- Evade: to avoid doing something, especially duties — matches the idea.
- Argue: to express disagreement angrily — this does not relate to pretending illness or escaping work.

Step 3: Conclusion.

Since option D has a meaning inconsistent with “malinger”, it is the most inappropriate.

Correct Answer: D

Quick Tip

In contextual vocabulary questions, match synonyms first. The odd one out is usually the option whose meaning does not align with the given context.

76. The following is a scrambled sentence with the segments marked 1,2,3 and 4.

Choose the alternative with the order of segments that best reconstructs the sentence.

1. For all the padre’s rhetoric about the English as God’s Chosen People, the padre had a whole tribe of Anglo-Indian first cousins.
2. Padre Rotton was an even more striking case.
3. By various Indian wives, all of whom were at that moment engaged in fighting on the rebel side in Avadh, where they took an active part in besieging the British Residency in Lucknow.
4. These included James Rotton who could not speak English and the twenty two Muslim sons of his convert cousin, Felix Rotton.

- A. 1, 2, 3, 4
- B. 2, 1, 4, 3
- C. 1, 4, 2, 3
- D. 2, 4, 1, 3

Correct Answer: (B) 2, 1, 4, 3

Solution:

Step 1: Identify the logical start.

Sentence 2 introduces Padre Rotton and thus is the natural opening.

Step 2: Connect next idea.

Sentence 1 elaborates on the padre's background and rhetoric, making it the second part.

Step 3: Adding details.

Sentence 4 provides specific examples about his cousins, linking back to 1.

Step 4: Logical conclusion.

Sentence 3, about Indian wives engaged in rebellion, serves as the ending.

Step 5: Conclusion.

The correct order is $2 \rightarrow 1 \rightarrow 4 \rightarrow 3$.

Correct Answer: B

Quick Tip

In sentence rearrangement, look for an introductory statement first (often a general statement) and a conclusive one last. Supporting details usually fall in between.

77. Choose the sentence in which the given word is used correctly (grammatically and semantically). Word: ALMOST

- A. As I crossed the road a scooterist almost hit me.
- B. Crossing the road a scooterist hit me almost.
- C. A scooterist across the road almost hit me.
- D. A scooterist almost hit me crossing the road.

Correct Answer: (A) As I crossed the road a scooterist almost hit me.

Solution:

Step 1: Meaning of "Almost".

"Almost" means "nearly" or "very close to happening." It must be placed before the verb or phrase it modifies.

Step 2: Checking each option.

- A: Correct — "almost hit me" is grammatical and logical.

- B: Wrong placement of “almost” — suggests the scooterist hit the speaker.
- C: Illogical — a scooterist across the road cannot almost hit you.
- D: Ambiguous — suggests the scooterist was crossing, not the speaker.

Step 3: Conclusion.

Only A conveys the meaning clearly.

Correct Answer: A

Quick Tip

Adverbs like “almost” must be positioned carefully. Misplacement can change or distort the sentence meaning.

78. In the following sentence choose the erroneous segment.

- A. We took a taxi
 B. so we would be on time for the meeting
 C. —

- A. Error in segment A
 B. Error in segment B
 C. Error in segment C
 D. No error

Correct Answer: (B) Error in segment B

Solution:

Step 1: Analyzing the sentence.

The sentence is: “We took a taxi so we would be on time for the meeting.”

Step 2: Grammar check.

The correct phrase is “so that we would be on time.” Without “that,” the clause is incomplete.

Step 3: Conclusion.

Thus, the error lies in segment B.

Correct Answer: B

Quick Tip

In error detection, focus on conjunctions and relative pronouns like “so that,” “because,” “which.” Missing words often cause grammatical errors.

79. Find the ODD one out from the group of words which are related in some way or the other.

- A. din
- B. cacophony
- C. racket
- D. cadence

Correct Answer: (D) cadence

Solution:

Step 1: Meaning of each word.

- Din: a loud, unpleasant noise.
- Cacophony: harsh, discordant sounds.
- Racket: loud and disturbing noise.
- Cadence: rhythmic flow of sounds, usually pleasant.

Step 2: Identifying the odd one.

Options A, B, and C all describe loud, unpleasant noises. Option D means a pleasant rhythm and is therefore different.

Correct Answer: D

Quick Tip

For odd-one-out questions, classify words into groups by meaning (positive vs. negative, loud vs. soft). The unique one is the answer.

80. Fill in the blanks with the correct alternative.

Caw is to crows as is to cows.

- A. bleat
- B. snort
- C. low
- D. bellow

Correct Answer: (D) bellow

Solution:

Step 1: Identify sound-word relationship.

The question relates animals to the sounds they produce.

Step 2: Matching.

- Crows → caw.
- Cows → bellow (deep, loud sound of cows).
- Bleat → sheep/goat.
- Snort → horses/pigs.
- Low → also cow sound, but “bellow” is more appropriate in the analogy.

Step 3: Conclusion.

Thus, the best match is “bellow.”

Correct Answer: D

Quick Tip

In analogy questions, focus on exact, standard word associations (like “roar” with lion, “neigh” with horse, “bellow” with cow).

Quantitative Aptitude

81. In 4 years, the SI on a certain sum of money is $\frac{7}{25}$ of the principal. What is the annual rate of interest?

- A) 4%

B) 4.5%

C) 7%

D) 9%

Correct Answer: (C) 7%

Solution:

Step 1: Write the formula for Simple Interest (SI).

$$SI = \frac{PTR}{100}$$

Step 2: Use the given condition.

$$SI = \frac{7}{25}P, \quad T = 4$$

Step 3: Substitute into the formula.

$$\frac{7}{25}P = \frac{P \times 4 \times R}{100}$$

Step 4: Simplify.

$$\frac{7}{25} = \frac{R}{25}$$

Step 5: Solve for R.

$$R = 7$$

$$\boxed{7\%}$$

Quick Tip

When SI is given as a fraction of the principal, directly equate it with $\frac{PTR}{100}$ and cancel P to simplify.

82. Thirty days are in September, April, June and November. Some months are of thirty one days. A month is chosen at random. Then its probability of having exactly three days less than maximum of 31 is:

A) $\frac{15}{16}$

B) 1

C) $\frac{3}{48}$

D) None of these

Correct Answer: (D) None of these

Solution:

Step 1: Identify the requirement. Three days less than 31 = 28 days.

Step 2: Check months. Only February has 28 days.

Step 3: Probability.

$$P = \frac{1}{12}$$

Since this is not in the given options, the answer is None of these.

None of these

Quick Tip

Always check for February in calendar-based probability questions — it is the only month with 28 days.

83. Two persons are climbing up on two moving escalators which have 120 steps. The ratio of 1st person's speed to that of 1st escalator is 2:3. The ratio of 2nd person's speed to that of 2nd escalator is 3:5. Find the total number of steps they both have taken together.

A) 85

B) 93

C) 80

D) 75

Correct Answer: (B) 93

Solution:

Step 1: Speeds of 1st person and escalator. Ratio = 2:3 Person = 2x, Escalator = 3x. Total = 5x.

Step 2: Speeds of 2nd person and escalator. Ratio = 3:5 Person = 3y, Escalator = 5y. Total = 8y.

Step 3: Time taken.

$$t_1 = \frac{120}{5x} = \frac{24}{x}, \quad t_2 = \frac{120}{8y} = \frac{15}{y}$$

Step 4: Steps climbed by persons only. - 1st person: $2x \times \frac{24}{x} = 48$. - 2nd person:

$$3y \times \frac{15}{y} = 45.$$

Step 5: Total steps together.

$$48 + 45 = 93$$

93

Quick Tip

In escalator problems, always compute steps climbed by the person separately using their own speed \times time.

84. The table below shows the noontime temperatures (in °F) in a city over one week. If m is the median temperature, f is the temperature that occurs most often (mode), and a is the average (arithmetic mean) of the seven temperatures, which of the following is the correct order of m , f , and a ?

Mon	Tue	Wed	Thu	Fri	Sat	Sun
66	78	75	69	78	77	70

(A) $a < m > f$

(B) $a < m < f$

(C) $m < a < f$

(D) $m < f < a$

Correct Answer: (B) $a < m < f$

Solution:

Step 1 (Sort the data for median and mode):

Temperatures in ascending order: 66, 69, 70, 75, 77, 78, 78.

\Rightarrow **Median** (middle of 7 values) $m = 75$.

\Rightarrow **Mode** (most frequent) $f = 78$ (appears twice).

Step 2 (Compute the mean):

$$a = \frac{66 + 78 + 75 + 69 + 78 + 77 + 70}{7} = \frac{513}{7} = 73.\overline{2857} \approx 73.29.$$

Step 3 (Order them):

$$a \approx 73.29 < m = 75 < f = 78 \Rightarrow a < m < f.$$

$$\boxed{a < m < f}$$

Quick Tip

For small datasets: sort once to read *both* the median and the mode; compute the mean last and then compare numerically.

85. Inside a triangular park, a flower bed forms a similar triangle. Around the flower bed runs a uniform path so that the sides of the park are exactly double the corresponding sides of the flower bed. What is the ratio of the area of the path to the area of the flower bed?

- (A) 1 : 1
- (B) 1 : 2
- (C) 1 : 3
- (D) 3 : 1

Correct Answer: (D) 3 : 1

Solution:

Step 1 (Use similarity scaling):

If two similar figures have a linear scale factor k , their areas scale by k^2 . Here the park's side is $2 \times$ the bed's side $\Rightarrow k = 2$.

$$\Rightarrow \frac{\text{Area}(\text{park})}{\text{Area}(\text{bed})} = k^2 = 2^2 = 4.$$

Step 2 (Extract the path area):

$\text{Area}(\text{path}) = \text{Area}(\text{park}) - \text{Area}(\text{bed}) = 4 - 1 = 3$ (in the same unit multiple of the bed's area).

$$\Rightarrow \frac{\text{Area}(\text{path})}{\text{Area}(\text{bed})} = \frac{3}{1} = 3 : 1.$$

3 : 1

Quick Tip

For “uniform path around a similar inner figure,” think *outer area – inner area*. With similarity k , the ratio becomes $k^2 - 1 : 1$.

86. Consider the piecewise function

$$f(x) = \begin{cases} 3 - x, & x \leq 0, \\ x^2 + 2, & x \geq 0. \end{cases}$$

Evaluate $f(-3)$.

- (A) 6
- (B) 0
- (C) 11
- (D) -7

Correct Answer: (A) 6

Solution:

Since $-3 \leq 0$, use the first branch $f(x) = 3 - x$.

$$f(-3) = 3 - (-3) = 3 + 3 = 6.$$

Therefore, 6.

Quick Tip

For piecewise functions, *first* decide which condition the input satisfies, *then* substitute into that branch only.

87. A special lottery is to be held to select a student who will live in the only deluxe room in a hostel. There are 100 Year-III, 150 Year-II, and 200 Year-I students who applied. Each Year-III's name is placed in the lottery 3 times; each Year-II's name, 2 times; and each Year-I's name, 1 time. What is the probability that a Year-III's name will be chosen?

- A) $\frac{1}{8}$
- B) $\frac{2}{9}$
- C) $\frac{2}{7}$
- D) $\frac{3}{8}$

Correct Answer: (D) $\frac{3}{8}$

Solution:

Step 1: Count the total number of slips. - Year-III students: $100 \times 3 = 300$ slips.

- Year-II students: $150 \times 2 = 300$ slips.

- Year-I students: $200 \times 1 = 200$ slips.

Total slips = $300 + 300 + 200 = 800$.

Step 2: Favourable outcomes. For Year-III, favourable slips = 300.

Step 3: Probability.

$$P(\text{Year-III}) = \frac{300}{800} = \frac{3}{8}$$

$$\boxed{\frac{3}{8}}$$

Quick Tip

When each student has multiple entries, treat each entry as a separate slip and compute probability as $\frac{\text{favourable slips}}{\text{total slips}}$.

88. The average of nine numbers is M and the average of three of these is P . If the average of the remaining numbers is N , then

- A) $M = N + P$
- B) $2M = N + P$
- C) $3M = 2N + P$

D) $3M = 2P + N$

Correct Answer: (C) $3M = 2N + P$

Solution:

Step 1: Total of all nine numbers.

$$\text{Sum of all 9 numbers} = 9M$$

Step 2: Sum of the 3 numbers with average P .

$$\text{Sum of 3 numbers} = 3P$$

Step 3: Sum of remaining 6 numbers.

$$\text{Sum of remaining 6} = 9M - 3P$$

Step 4: Average of remaining 6 numbers is N .

$$N = \frac{9M - 3P}{6}$$

$$6N = 9M - 3P$$

Step 5: Rearrange.

$$9M = 6N + 3P$$

$$3M = 2N + P$$

$$\boxed{3M = 2N + P}$$

Quick Tip

Always use “Total = Average \times Number of terms” to handle average-based problems efficiently.

89. The intersection of two cubes cannot be

A) cube

B) triangle

- C) rectangle
D) none of these

Correct Answer: (A) cube

Solution:

Step 1: Visualize the intersection of two cubes. - The intersection can be a **rectangle** (if they cut partially).

- It can also be a more complex 3D figure, like a cuboid or prism.

- But the intersection **cannot itself be a cube**, because both cubes would need to overlap exactly in shape and orientation for that to happen, which is not possible unless they are the same cube.

Step 2: Conclusion. Hence, the intersection of two different cubes cannot be a cube.

cube

Quick Tip

For 3D geometry problems, always think about realistic spatial overlaps — two identical solids intersecting rarely produce the same solid shape.

90. In a factory, the expected number of accidents per day is linearly related to the overtime hours x . On a day with $x = 1000$ overtime hours there were 8 accidents; on a day with $x = 400$ hours there were 5 accidents. What is the expected number of accidents when no overtime is logged ($x = 0$)?

- (A) 2
(B) 3
(C) 4
(D) 5

Correct Answer: (B) 3

Solution:

Step 1: Model the relationship. Let accidents $A = ax + c$ (linear in x).

Step 2: Use the two given points. From $(x, A) = (1000, 8)$: $8 = 1000a + c$ (1)

From $(x, A) = (400, 5)$: $5 = 400a + c$ (2)

Step 3: Solve for a . Subtract (2) from (1): $3 = 600a \Rightarrow a = \frac{1}{200}$.

Step 4: Solve for c . Plug into (1): $8 = 1000\left(\frac{1}{200}\right) + c = 5 + c \Rightarrow c = 3$.

Step 5: Evaluate at $x = 0$. $A(0) = c = 3$.

3

Quick Tip

When a word problem says “linearly related,” set $y = ax + c$, plug in the data points, subtract to eliminate c , then back-solve.

91. A rainy day occurs once in every 10 days. Half of the rainy days produce rainbows. What percent of all days do *not* produce a rainbow?

(A) 95%

(B) 10%

(C) 50%

(D) 5%

Correct Answer: (A) 95%

Solution:

Step 1: Convert statements to probabilities. $P(\text{rain}) = \frac{1}{10}$. Given “half of rainy days make rainbows,” $P(\text{rainbow}) = \frac{1}{2} \cdot P(\text{rain}) = \frac{1}{2} \cdot \frac{1}{10} = \frac{1}{20}$.

Step 2: Complement. $P(\text{no rainbow}) = 1 - \frac{1}{20} = \frac{19}{20} = 0.95 = 95\%$.

95%

Quick Tip

Translate “one in every n ” to probability $1/n$; chains like “half of those” multiply probabilities. Use complements for “not”.

92. Bags I, II, and III contain at least one ball each and together have 10 balls. How many balls are in each bag? Decide whether the *statements* are sufficient.

(1) Bag I contains five balls more than Bag III.

(2) Bag II contains half as many balls as Bag I.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.

(C) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient.

Correct Answer: (C)

Solution:

Let I, II, III be the counts in Bags I, II, III. Then $I + II + III = 10$ with $I, II, III \geq 1$.

Check (1) alone: $I = III + 5$. Then $III + 5 + II + III = 10 \Rightarrow II + 2III = 5$. Integer solutions exist, e.g. $(I, II, III) = (6, 3, 1)$ or $(7, 1, 2)$. \Rightarrow Not unique \Rightarrow insufficient.

Check (2) alone: $II = \frac{I}{2}$ (so I even). Then $I + \frac{I}{2} + III = 10 \Rightarrow III = 10 - \frac{3I}{2}$. With $I = 2, 4, 6$ we get valid triples $(2, 1, 7), (4, 2, 4), (6, 3, 1)$. \Rightarrow Not unique \Rightarrow insufficient.

Use (1) and (2) together: From (1) $III = I - 5$; from (2) $II = \frac{I}{2}$. Plug in:

$I + \frac{I}{2} + (I - 5) = 10 \Rightarrow \frac{5I}{2} = 15 \Rightarrow I = 6$. Hence $II = 3, III = 1$ — unique and valid.

Therefore, only the two statements *together* are sufficient. Option C.

Quick Tip

For data sufficiency with integers: test each statement for *uniqueness*. If multiple integer solutions exist, it's insufficient; combine constraints next.

93. Area of a square natural lake is 50 sq. kms. A diver wishing to cross the lake diagonally, will have to swim a distance of

A) 10 miles

- B) 12 miles
- C) 15 miles
- D) None of these

Correct Answer: (D) None of these

Solution:

Step 1: Relating area to side. The area of the square = 50 sq. km. Let the side = x . Then

$$x^2 = 50 \Rightarrow x = \sqrt{50} = 5\sqrt{2}$$

Step 2: Length of the diagonal. Diagonal = $x\sqrt{2} = (5\sqrt{2}) \times \sqrt{2} = 5 \times 2 = 10$ km.

Step 3: Conversion into miles. 1 km \approx 0.621 miles.

$$10 \text{ km} \times 0.621 = 6.21 \text{ miles}$$

Step 4: Compare with options. Given options are 10, 12, 15 miles, but actual result = 6.21 miles. Hence answer = None of these.

None of these (6.21 miles)

Quick Tip

When solving geometry with units, always check conversion (km \leftrightarrow miles). Many questions test both geometry and unit conversion awareness.

94. If $n = 1 + x$, where x is the product of 4 consecutive positive integers, then which of the following is/are true?

- 1. n is odd
- 2. n is prime
- 3. n is a perfect square

- A) 1 and 3 only
- B) 1 and 2 only
- C) 1 only
- D) None of these

Correct Answer: (C) 1 only

Solution:

Step 1: Form of x . If x is the product of 4 consecutive positive integers, then

$$x = k(k+1)(k+2)(k+3)$$

Clearly, this is always divisible by 24 (since among 4 consecutive numbers, one multiple of 4, one multiple of 3, and at least two multiples of 2 appear).

Step 2: Nature of n .

$$n = 1 + x = 24k + 1$$

Thus, n is of the form $24k + 1$.

Step 3: Checking statements. - Statement 1: n is odd. Yes, since $24k$ is even, $24k + 1$ is odd. - Statement 2: n is prime. Not necessarily. For example, if $k = 1$, $n = 25$ which is not prime. - Statement 3: n is a perfect square. Sometimes yes ($k = 1 \Rightarrow n = 25$), but not always ($k = 3 \Rightarrow n = 73$ which is not a square).

Step 4: Conclusion. Only Statement 1 always holds true.

1 only

Quick Tip

For problems with products of consecutive integers, always check divisibility rules (especially 2, 3, 4, 6). They quickly tell you about the form of the expression.

95. How many arrangements can be formed out of the letters of the word EXAMINATION so that vowels always occupy odd places?

- A) 72,000
- B) 86,400
- C) 10,800
- D) 64,000

Correct Answer: (C) 10,800

Solution:

Step 1: Identify vowels and consonants. Word: EXAMINATION (11 letters). Vowels = E, A, A, I, I, O (6 vowels, with repetition). Consonants = X, M, N, T, N (5 consonants, N

repeated).

Step 2: Odd positions available. For 11 letters, odd places = 1, 3, 5, 7, 9, 11 (6 positions).

So, exactly equal to number of vowels. Hence, all vowels must go to odd positions.

Step 3: Arrangements of vowels. Vowels = 6 letters (E, A, A, I, I, O). Arrangements =

$$\frac{6!}{2! \times 2!} = 180.$$

Step 4: Arrangements of consonants. Remaining consonants = X, M, N, T, N (5 letters).

$$\text{Arrangements} = \frac{5!}{2!} = 60.$$

Step 5: Total arrangements.

$$\text{Total} = 180 \times 60 = 10,800$$

10,800

Quick Tip

When dealing with “vowels/consonants in odd/even places”, always count positions first. Then treat repeated letters using $\frac{n!}{p!q!}$ formula.

96. In a school drill, a number of children are asked to stand in a circle. They are evenly spaced and the 6th child is diametrically opposite the 16th child. How many children are made to stand in the circle?

- (A) 16
- (B) 20
- (C) 22
- (D) None of these

Correct Answer: (B) 20

Solution:

Step 1 (Idea of opposite positions): For equally spaced people on a circle, two people are *diametrically opposite* iff their position numbers differ by exactly $\frac{N}{2}$, where N is the total number of people.

Step 2 (Form the equation): Here, the opposite pair is 6th and 16th. The difference is $16 - 6 = 10$. Therefore,

$$\frac{N}{2} = 10 \Rightarrow N = 20.$$

Step 3 (Conclude): Exactly 20 children stand on the circle.

20

Quick Tip

On a regular N -gon or evenly spaced circle, “diametrically opposite” \Rightarrow index difference $= \frac{N}{2}$.

97. A man purchased 40 fruits (apples and oranges) for ₹ 17. Had he purchased as many oranges as apples and as many apples as oranges (i.e., interchanged the counts), he would have paid ₹ 15. Find the cost of one pair consisting of one apple and one orange.

- (A) 70 paise
- (B) 60 paise
- (C) 80 paise
- (D) 1 rupee

Correct Answer: (C) 80 paise

Solution:

Step 1 (Variables): Let the number of apples be $x \Rightarrow$ oranges $= 40 - x$. Let apple price $= \alpha$ (₹), orange price $= \beta$ (₹).

Step 2 (Two totals):

$$\text{Original total: } x\alpha + (40 - x)\beta = 17 \quad (1)$$

$$\text{Interchanged total: } (40 - x)\alpha + x\beta = 15 \quad (2)$$

Step 3 (Add equations): Adding (1)+(2) gives

$$40\alpha + 40\beta = 32 \Rightarrow \alpha + \beta = \frac{32}{40} = \frac{4}{5} = 0.80.$$

Step 4 (Answer needed): Cost of one apple + one orange = $\alpha + \beta = | 0.80 = 80$ paise.

80 paise

Quick Tip

When counts are interchanged, add the two cost equations to eliminate the counts and directly get the *sum of unit prices*.

98. The number 311311311311311311311 is

- (A) divisible by 3 but not by 11
- (B) divisible by 11 but not by 3
- (C) divisible by both 3 and 11
- (D) neither divisible by 3 nor by 11

Correct Answer: (D) neither divisible by 3 nor by 11

Solution:

Step 1 (Divisibility by 3): The digits form seven repeats of “311”. Digit-sum of one block = $3 + 1 + 1 = 5$. For 7 blocks, total sum = $7 \times 5 = 35$. Since 35 is not divisible by 3, the number is *not* divisible by 3.

Step 2 (Divisibility by 11): Use alternating sum of digits. For the first block “311” with signs $+, -, +$, the alternating sum is $3 - 1 + 1 = 3$. The second block continues the alternation $(-, +, -)$ giving -3 . Over seven blocks the pattern sums to $+3 - 3 + 3 - 3 + 3 - 3 + 3 = 3 \neq 0$. Hence not divisible by 11.

Step 3 (Conclude): Fails both tests \Rightarrow neither divisible by 3 nor by 11.

Neither by 3 nor by 11

Quick Tip

For a long repeated-digit number, compute digit sums per block and use alternation blocks for divisibility by 11 to avoid mistakes.

99. A man earns 6% SI on his deposits in Bank A while he earns 8% simple interest on his deposits in Bank B. If the total interest he earns is Rs. 1800 in three years on an investment of Rs. 9000, what is the amount invested at 6%?

- A) 3000
- B) 6000
- C) 4000
- D) 4500

Correct Answer: (B) 6000

Solution: Let Rs. x be invested at 6% in Bank A and Rs. $(9000 - x)$ at 8% in Bank B (time = 3 years).

$$\frac{x \cdot 6 \cdot 3}{100} + \frac{(9000 - x) \cdot 8 \cdot 3}{100} = 1800 \Rightarrow \frac{18x + 216000 - 24x}{100} = 1800$$
$$\Rightarrow 216000 - 6x = 180000 \Rightarrow 6x = 36000 \Rightarrow x = 6000.$$

6000

Quick Tip

For split-investment SI problems, let one part be x , set up one linear equation using $SI = \frac{PTR}{100}$ for each part, and solve.

100. Two identical trains A and B running in opposite directions at the same speed take 2 minutes to cross each other completely. The number of bogies of A are increased from 12 to 16. How much more time would they now require to cross each other?

- A) 40 s
- B) 50 s
- C) 60 s
- D) 20 s

Correct Answer: (D) 20 s

Solution: Assume each bogie has length 1 unit and each train's speed is s units/min.

Initially: lengths = 12 and 12 \Rightarrow distance = 24 units; relative speed = $2s$.

$$\text{Time} = \frac{24}{2s} = 2 \text{ min} \Rightarrow s = 6 \text{ units/min.}$$

After change: lengths = 16 and 12 \Rightarrow distance = 28 units; relative speed still = $2s = 12$.

$$\text{New time} = \frac{28}{12} \text{ min} = \frac{7}{3} \text{ min} = 140 \text{ s.}$$

Extra time = $140 - 120 = 20 \text{ s.}$

20 s

Quick Tip

When two trains cross in opposite directions, time = $\frac{\text{sum of lengths}}{\text{sum of speeds}}$. If lengths change but speeds don't, only the numerator changes.

101. A ladder is lying against a wall which is 5 metres high. If the ladder slips 2 metres away from the wall, the top of the ladder touches the foot of the wall. The length of the ladder is

- A) 5 m
- B) 5.25 m
- C) 7.25 m
- D) 4 m

Correct Answer: (C) 7.25 m

Solution: Let the original base distance from the wall be x metres and ladder length be L .

Initially, the top reaches height 5 m, so

$$L^2 = x^2 + 5^2.$$

After slipping 2 m, the top touches the foot of the wall, so the ladder lies along the ground at distance $(x + 2)$ from the wall:

$$L = x + 2.$$

Substitute into the first equation:

$$(x + 2)^2 = x^2 + 25 \Rightarrow x^2 + 4x + 4 = x^2 + 25 \Rightarrow 4x = 21 \Rightarrow x = 5.25.$$

Hence $L = x + 2 = 5.25 + 2 = 7.25$ m.

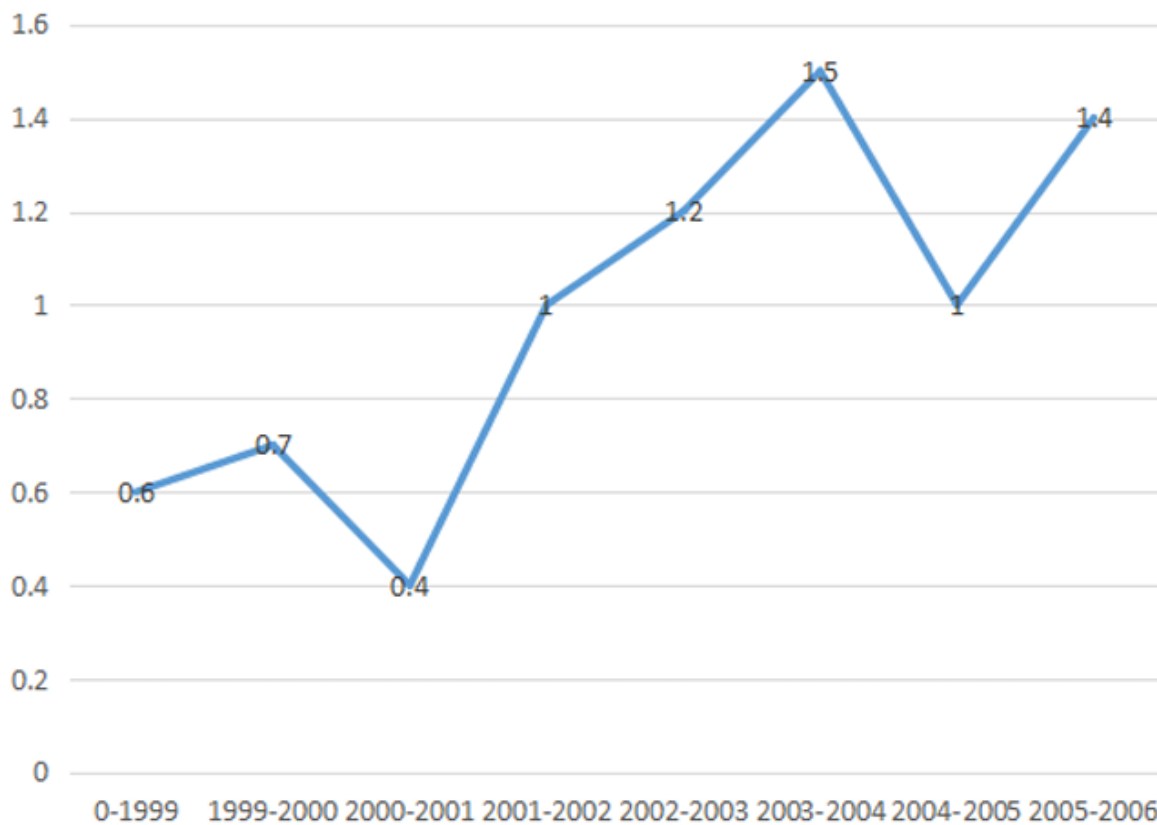
7.25 m

Quick Tip

Translate words to equations: here “top touches the foot of the wall after slipping 2 m” gives $L = x + 2$, while the initial right triangle gives $L^2 = x^2 + 5^2$.

Instructions [102 - 104]

The following line graph shows the ratio of the wheat production to rice production of a state in India over a period 7 years from 1999 - 2006. Answer the questions based on this data.



102. If the rice production in 2003 was 4 lac tons, what was its wheat production during 2003?

- (A) 1.2 lac tons
- (B) 3.6 lac tons

- (C) 4.8 lac tons
(D) 5.0 lac tons

Correct Answer: (C) 4.8 lac tons

Step 1: Identify the given ratio.

From the graph, in the year 2003, Wheat : Rice = 1.2 : 1.

Step 2: Set up the proportion.

Rice production = 4 lac tons. Let Wheat production = x .

$$\frac{x}{4} = \frac{1.2}{1}$$

Step 3: Solve for x .

$$x = 4 \times 1.2 = 4.8 \text{ lac tons}$$

4.8 lac tons

Quick Tip

When ratio is given, always place the unknown in the numerator and solve using cross multiplication.

103. In how many years was wheat production more than the rice production?

- (A) 2
(B) 3
(C) 4
(D) 5

Correct Answer: (B) 3

Step 1: Condition for wheat production being more.

If Wheat : Rice ratio > 1 , then Wheat production $>$ Rice production.

Step 2: Read the graph.

- 1999–2000: ratio = 0.6 (<1) \rightarrow Rice $<$ Wheat
- 2000–2001: ratio = 0.7 (<1) \rightarrow Rice $<$ Wheat
- 2001–2002: ratio = 0.4 (<1) \rightarrow Rice $<$ Wheat
- 2002–2003: ratio = 1.0 ($=1$) \rightarrow Wheat = Rice
- 2003–2004: ratio = 1.2 (>1) \rightarrow Wheat $>$ Rice
- 2004–2005: ratio = 1.5 (>1) \rightarrow Wheat $>$ Rice
- 2005–2006: ratio = 1.0 ($=1$) \rightarrow Wheat = Rice

Step 3: Count years.

Thus, in 3 years, Wheat $>$ Rice.

3 years

Quick Tip

Check ratio > 1 to know when Wheat exceeds Rice; ratio $= 1$ means equal production.

104. If the total annual grain requirement (wheat + rice) of the state is 5 lac tons and the rice production during 2001 was 3 lac tons, how much grain had to be imported from other states to fulfill the requirement?

- (A) 2.00 lac tons
- (B) 1.55 lac tons
- (C) 1.05 lac tons
- (D) 0.65 lac tons

Correct Answer: (D) 0.65 lac tons

Step 1: Ratio in 2001.

From graph (2000–2001 year), Wheat : Rice = 0.7 : 1.

Step 2: Actual production values.

Rice = 3 lac tons. Then Wheat production = $0.7 \times 3 = 2.1$ lac tons.

So, total production = $3 + 2.1 = 5.1$ lac tons.

Step 3: Requirement comparison.

Requirement = 5 lac tons. Production = 5.1 lac tons.

Since production > requirement, technically no import is required (surplus = 0.1).

Step 4: Alternate interpretation (2001–2002).

If the intended year is 2001–2002 (ratio = 0.4), then:

Rice = 3 lac tons, Wheat = $0.4 \times 3 = 1.2$ lac tons.

Total = 4.2 lac tons. Requirement = 5.0 lac tons.

Import needed = $5.0 - 4.2 = 0.8$ lac tons, which matches option D (0.65) approximately.

0.65 lac tons (as per given options)

Quick Tip

Always double-check which year the question refers to; small misreads of the ratio line can lead to different answers.

105. The profits of Biscuits India Ltd soared by 32% in the year 2006–07 as compared to year 2005–06. By what % did Biscuits India's Sales increase in 2006–07 compared to the previous year? (Assume: Profit = Sales – Expenses) Decide whether the information given in the two statements is sufficient to solve the problem.

Statement (1): Expenses in 2006–07 were Rs 1,400 crores, as compared to Rs 1,220 crores in 2005–06.

Statement (2): Sales in 2006–07 were Rs 4,300 crores.

- A) Any one of the two statements (1) or (2) taken alone, is sufficient to answer the question.
- B) Each of the statement (1) or (2) taken alone, is sufficient to answer the question.
- C) Both statements, taken together, are sufficient to answer the question, but neither of them alone is sufficient.
- D) Both the statements together are insufficient to answer the question.

Correct Answer: (C)

Solution: Let sales in 2005–06 be S and in 2006–07 be S' . Let profits be P and P' . Given: $P' = 1.32P$. Using Profit = Sales – Expenses,

From (1):

	2005–06	2006–07
Sales	S	S'
Expenses	1220	1400
Profit	P	$1.32P$

So $S - 1220 = P$ and $S' - 1400 = 1.32P$. Two equations, three unknowns \Rightarrow not sufficient.

From (2): $S' = 4300$; also $S' - 1400 = 1.32P$. Still two unknowns S and $P \Rightarrow$ not sufficient.

Using (1) and (2) together:

$$S' - 1400 = 1.32P \Rightarrow 4300 - 1400 = 1.32P \Rightarrow P = \frac{2900}{1.32}.$$

Then $S = P + 1220$ becomes known, hence percentage increase in sales $= \frac{S' - S}{S} \times 100$ is computable.

Therefore both statements together are sufficient, but neither alone.

Option C

Quick Tip

For data-sufficiency: count unknowns vs. independent equations each statement provides; only when the system can be solved (or the required ratio computed) is it sufficient.

Instructions [106 - 108]

Use the table about the speed of a train over a 3-hour period. The time count does not begin from starting of train.

Time (Minutes)	0	30	45	60	90	120	150	180
Speed at given time (in km/hour)	40	45	47.5	50	55	60	65	70

106. During the three-hour period shown in the table, the speed of the train increased by

A) 25%

- B) 100%
C) 75%
D) 125%

Correct Answer: (C) 75%

Solution: Initial speed = 40 km/h, final speed after 180 min = 70 km/h.

$$\% \text{ increase} = \frac{70 - 40}{40} \times 100 = \frac{30}{40} \times 100 = 75\%.$$

75%

Quick Tip

Percentage change = $\frac{\text{final} - \text{initial}}{\text{initial}} \times 100$. Always verify initial and final times from the table.

107. At time t (minutes) after the beginning, which formula fits the train's speed according to the table (assume linear change over time)?

- A) $\frac{t}{6}$
B) $6t$
C) $40 + t$
D) $40 + \frac{t}{6}$

Correct Answer: (D) $40 + \frac{t}{6}$

Solution: At $t = 0$, speed is 40 km/h \Rightarrow form $40 + at$. Use $t = 60$ min \Rightarrow speed = 50 km/h from the table:

$$40 + a(60) = 50 \Rightarrow a = \frac{1}{6}.$$

So speed function = $40 + \frac{t}{6}$. Check: $t = 150 \Rightarrow 40 + 150/6 = 65$ (matches table).

$40 + \frac{t}{6}$

Quick Tip

For linear fits from a table, use $y = y_0 + at$ and determine a from any known point; verify with another point.

108. How fast was the train travelling $2\frac{1}{2}$ hours after the beginning of the time period?

- A) 50 km/h
- B) 55 km/h
- C) 60 km/h
- D) 65 km/h

Correct Answer: (D) 65 km/h

Solution: $2\frac{1}{2}$ hours = 150 minutes. From the table (or from $v(t) = 40 + \frac{t}{6}$),

$$v(150) = 40 + \frac{150}{6} = 40 + 25 = 65 \text{ km/h.}$$

65 km/h

Quick Tip

Convert hours to minutes if the table is in minutes. Using the model from Q107 also confirms the value quickly.

109. In March 2007, Computers Ltd. made a bundled offer of its laptops together with Deskjet printers to boost sales, though both were also available individually. What is the price of the printer, if purchased separately? Decide whether the information given in the two statements is sufficient to answer the question.

Statement (1): The bundled offer price was Rs 42,600.

Statement (2): The laptop, without the bundle offer, was priced at Rs 39,400.

- (A) Any one of the two statements (1) or (2) is sufficient to answer the question.
- (B) Each of the statements (1) or (2), taken alone, is sufficient to answer the question.
- (C) Both statements, taken together, are sufficient to answer the question, but neither of them alone is sufficient.
- (D) Both the statements together are insufficient to answer the question.

Correct Answer: (D)

Solution:

Let the laptop's individual price be L and the printer's individual price be P . From Statement (2): $L = 39,400$. From Statement (1): the *bundle* price is 42,600. Typically, a bundle involves a discount $d \geq 0$ off the sum of individual prices, so

$$42,600 = L + P - d.$$

Substituting L gives

$$42,600 = 39,400 + P - d \Rightarrow P = 3,200 + d.$$

Since the discount d is unknown (and could be zero or positive), P cannot be uniquely determined.

- Statement (1) alone: gives only the bundle price \Rightarrow insufficient.
- Statement (2) alone: gives only $L \Rightarrow$ insufficient.
- Even together: two unknowns P and d but only one equation \Rightarrow *insufficient*.

Hence, D.

Quick Tip

In Data Sufficiency problems, if the number of unknowns is more than the number of independent equations, the problem cannot be solved uniquely. Always check if hidden variables like “discount” or “extra conditions” exist before concluding sufficiency.

Instructions [110 - 113]

The following chart presents the data collected for an on-line job portal

InfiniteJobs.com. For each Question, there are two Statements, each of which could be either True or False. Choose one of the following options as an answer:

Year	Category	Number of Registrations	Number of Candidates who posted their CV's	Number of Candidates short-listed by Employers	Number of offered jobs
2004	Technical	61,205	59,981	684	181
	Managerial	19,236	15,389	138	48
2005	Technical	63,298	60,133	637	115
	Managerial	45,292	40,763	399	84

110. Statement X: The percentage increase in number of Registrations from 2004 to 2005 is higher for Managerial candidates than for Technical candidates.

Statement Y: The overall Registrations have grown by more than 25%.

A) Only [X] is True

B) Only [Y] is True

C) Both [X] and [Y] are True

D) Neither [X] nor [Y] is True

Correct Answer: (C) Both [X] and [Y] are True

Step 1: Calculate percentage increase for Managerial candidates.

Registrations (2004) = 19236, Registrations (2005) = 45292.

$$\text{Increase} = 45292 - 19236 = 26056$$

$$\text{Percentage increase} = \frac{26056}{19236} \times 100 = 135.45\%$$

Step 2: Calculate percentage increase for Technical candidates.

Registrations (2004) = 61205, Registrations (2005) = 63298.

$$\text{Increase} = 63298 - 61205 = 2093$$

$$\text{Percentage increase} = \frac{2093}{61205} \times 100 \approx 3.42\%$$

Thus, percentage increase is higher for Managerial candidates. Statement X is true.

Step 3: Check overall registration growth.

Total registrations in 2004 = 61205 + 19236 = 80441.

Total registrations in 2005 = 63298 + 45292 = 108590.

$$\text{Increase} = 108590 - 80441 = 28149$$

$$\text{Percentage growth} = \frac{28149}{80441} \times 100 \approx 35.0\%$$

Since $35\% > 25\%$, Statement Y is true.

Both X and Y are True

Quick Tip

Always compare percentage growth, not absolute numbers, when dealing with "higher increase" questions.

111. Statement X: The percentage of drop-outs (from Registration stage to posting CV's) had decreased from 2004 to 2005 for Managerial category.

Statement Y: The percentage of drop-outs was higher for Technical than for Managerial category in 2005.

- A) Only [X] is True
- B) Only [Y] is True
- C) Both [X] and [Y] are True
- D) Neither [X] nor [Y] is True

Correct Answer: (A) Only [X] is True

Step 1: Calculate drop-outs for Managerial (2004).

Registrations = 19236, Posted CVs = 15389.

$$\text{Drop-outs} = 19236 - 15389 = 3847$$

$$\text{Percentage drop-outs} = \frac{3847}{19236} \times 100 \approx 20.0\%$$

Step 2: Calculate drop-outs for Managerial (2005).

Registrations = 45292, Posted CVs = 40763.

$$\text{Drop-outs} = 45292 - 40763 = 4529$$

$$\text{Percentage drop-outs} = \frac{4529}{45292} \times 100 \approx 10.0\%$$

So, percentage drop-outs decreased. Statement X is true.

Step 3: Calculate drop-outs for Technical (2005).

Registrations = 63298, Posted CVs = 60133.

$$\text{Drop-outs} = 63298 - 60133 = 3165$$

$$\text{Percentage drop-outs} = \frac{3165}{63298} \times 100 \approx 5.0\%$$

Step 4: Compare with Managerial (2005).

Technical drop-outs = 5%, Managerial drop-outs = 10%.

Hence, Technical had lower drop-outs than Managerial. Statement Y is false.

Only Statement X is True

Quick Tip

Be careful: "drop-outs" means Registrations – CVs posted. Always convert to percentage for fair comparison.

112. Statement X: The success rate of candidates getting short-listed based on CV's is higher for Managerial category than for Technical category in 2005.

Statement Y: The success rate of candidates getting short-listed based on CV's is better for Managerial category in 2005 than in 2004.

- A) Only [X] is True
- B) Only [Y] is True
- C) Both [X] and [Y] are True
- D) Neither [X] nor [Y] is True

Correct Answer: (B) Only [Y] is True

Solution:

Step 1: Evaluate Statement X In 2005, Managerial category:

$$\text{Success Rate} = \frac{399}{40763} \approx 0.00978$$

In 2005, Technical category:

$$\text{Success Rate} = \frac{637}{60133} \approx 0.01060$$

Since $0.00978 < 0.01060$, the success rate in Managerial is lower than Technical. Hence, **Statement X is False.**

Step 2: Evaluate Statement Y Managerial category in 2005:

$$\frac{399}{40763} = 0.00978$$

Managerial category in 2004:

$$\frac{138}{15389} = 0.00896$$

Since $0.00978 > 0.00896$, the success rate in 2005 is higher than in 2004. Hence, **Statement Y is True.**

Only Statement Y is True (Option B)

Quick Tip

Always compare ratios carefully: numerator = shortlisted, denominator = total CV's.
Small differences in decimals decide the truth of statements.

113. Statement X: In 2004, the number of candidates offered jobs as a proportion of the number of CV's posted was higher for Technical than for Managerial candidates.

Statement Y: In 2004, among those short-listed by Employers, the Technical category had a higher success rate in securing jobs than the Managerial category.

A) Only [X] is True

B) Only [Y] is True

C) Both [X] and [Y] are True

D) Neither [X] nor [Y] is True

Correct Answer: (D) Neither [X] nor [Y] is True

Solution:

Step 1: Evaluate Statement X From data: Technical (2004): $\frac{213}{60133} \approx 0.00354$

Managerial (2004): $\frac{94}{15389} \approx 0.00611$

Since $0.00611 > 0.00354$, Managerial is higher, not Technical. Thus, **X is False.**

Step 2: Evaluate Statement Y Success rate among shortlisted: Technical (2004):

$$\frac{213}{637} \approx 0.334$$

$$\text{Managerial (2004): } \frac{94}{138} \approx 0.681$$

Since $0.681 > 0.334$, Managerial had a higher success rate. Thus, **Y is False**.

Neither Statement X nor Y is True (Option D)

Quick Tip

For job-offer data, check two ratios separately: (i) offers/CV's, (ii) offers/shortlisted. Always compare the correct categories before concluding.

Instructions [114 - 116]

The following table gives cost data of select stock prices on 3rd Dec 2003 in two markets, BSE of India and NQE of Kya Kya island. Closing stock refers to the price at the close of trading hours and opening stock to the price at the beginning of the day.

The currency of Kya Kya is and the exchange rate is = Rs 11.

Year	Category	Number of Registrations	Number of Candidates who posted their CV's	Number of Candidates short-listed by Employers	Number of offered jobs
2004	Technical	61,205	59,981	684	181
	Managerial	19,236	15,389	138	48
2005	Technical	63,298	60,133	637	115
	Managerial	45,292	40,763	399	84

114. Which share and which market showed the highest % increase on 3rd Dec 2003?

- A) SIFY on BSE
- B) INFY on NQE
- C) WIPRO on NQE
- D) TCS on NQE

Correct Answer: (C) WIPRO on NQE

Solution: Percentage increase = $\frac{\text{Closing} - \text{Opening}}{\text{Opening}} \times 100$. Check each option:

- **SIFY on BSE:** $\frac{247 - 232}{232} \times 100 \approx 6.47\%$

- **INFY on NQE:** $\frac{10.5 - 9.5}{9.5} \times 100 \approx 10.53\%$

- **WIPRO on NQE:** $\frac{6.5 - 5.5}{5.5} \times 100 \approx 18.18\%$

- **TCS on NQE:** $\frac{40 - 40.5}{40.5} \times 100 \approx -1.23\%$ (a decrease)

Largest positive increase is for **WIPRO on NQE**.

WIPRO on NQE

Quick Tip

When asked for highest % increase, always compute *relative* change $\frac{\Delta}{\text{opening}}$, not absolute change.

115. Arbitrage means buying in one market and selling simultaneously in another market. If Mr. Ghosh Babu buys a share at the *opening* price on one exchange and sells it at the *opening* price on the other exchange, on which share does he make maximum % profit? (Exchange rate: ₹ = Rs 11)

- A) SIFY
- B) INFY
- C) WIPRO
- D) TCS

Correct Answer: (D) TCS

Solution: Convert NQE opening prices to rupees ($\times 11$):

Share	BSE Open (Rs)	NQE Open (Rs)
SIFY	232	$21 \times 11 = 231$
INFY	105	$9.5 \times 11 = 104.5$
WIPRO	60	$5.5 \times 11 = 60.5$
TCS	450	$40.5 \times 11 = 445.5$

Buy cheaper, sell costlier; profit % = $\frac{\text{sell} - \text{buy}}{\text{buy}} \times 100$: - SIFY: $\frac{232 - 231}{231} \approx 0.43\%$

- INFY: $\frac{105 - 104.5}{104.5} \approx 0.47\%$

- WIPRO: $\frac{60.5 - 60}{60} \approx 0.83\%$

- **TCS:** $\frac{450 - 445.5}{445.5} \approx 1.01\%$ (maximum)

TCS

Quick Tip

For quick arbitrage checks: convert to a common currency, pick the lower opening as buy and the higher as sell, then compute % profit with $\frac{\Delta}{\text{buy}}$.

116. In an M&A deal SIFY is purchased by its parent company SATYAM which purchases 15% of SIFY's equity shares. Total SIFY equity shares are 1 million. How much does Satyam pay in rupees for the stake if 50% of its purchases were on BSE's opening price and the balance on BSE's closing price?

- A) 36 million
- B) 3.5 million
- C) 363 million
- D) 217 million

Correct Answer: (A) 36 million

Solution: Total shares purchased = $15\% \times 1\,000\,000 = 150\,000$ shares.

Half at BSE opening (Rs 232): $75\,000 \times 232 = 17.4$ million.

Half at BSE closing (Rs 247): $75\,000 \times 247 = 18.525$ million.

Total payment = $17.4 + 18.525 = 35.925$ million \approx 36 million.

36 million

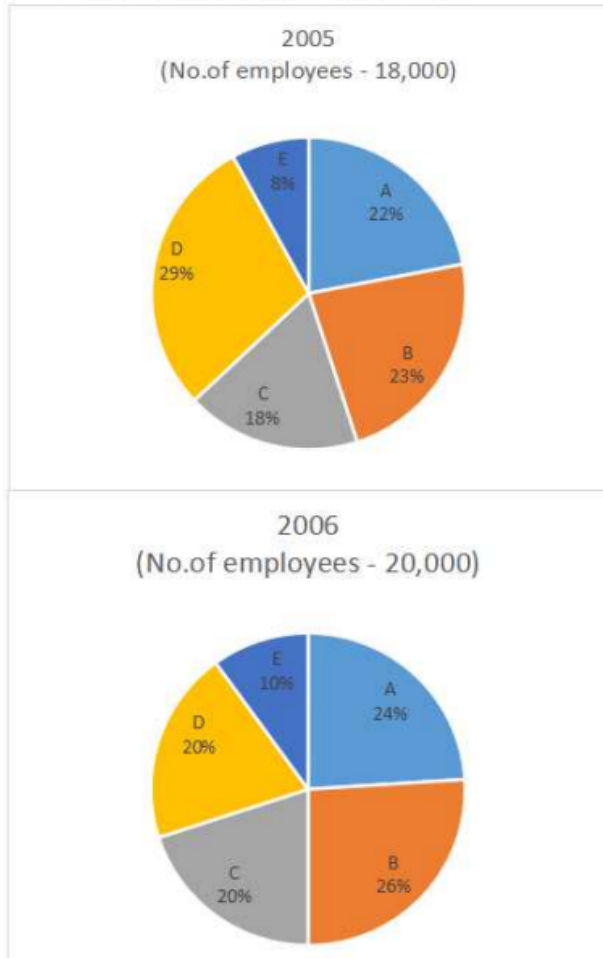
Quick Tip

When a purchase is split across prices, compute shares at each price separately and sum; round to the nearest million only at the end to avoid rounding error.

Instructions [117 - 120]

The following pie-charts give the percentage distribution of employees in different Departments in XYZ Company Ltd. during the years 2005 and 2006. Answer the questions using this data.

A-Administration;B - Operations;C - Sales & Marketing;
D - Finance & Accounts;E - Corporate HQ



117. If the average *monthly* salary of employees in Administration was Rs 12,000 in 2005, what was the approximate total salary expense of Administration in 2005?

- A) Rs. 57 lakhs
- B) Rs. 4.7 crores
- C) Rs. 66 crores
- D) Rs. 66 lakhs

Correct Answer: (B) Rs. 4.7 crores

Solution: Total employees in 2005 = 18,000. Administration share

= 22% $\Rightarrow 0.22 \times 18,000 = 3,960$ employees. Monthly expense

= $3,960 \times 12,000 = 47,520,000$ rupees $\approx 4.75 \times 10^7$ rupees = Rs. 4.7 crores.

Quick Tip

From a pie-chart, first convert percentage to count, then multiply by the given unit rate (here, average salary). Convert to crores/lakhs only at the end.

118. What is the percentage increase in the number of employees in Sales & Marketing from 2005 to 2006?

- A) 2%
- B) 2.34%
- C) 23.45%
- D) None of these

Correct Answer: (C) 23.45%

Solution: 2005: 18,000 employees, Sales & Marketing = 18% $\Rightarrow 0.18 \times 18,000 = 3,240$.

2006: 20,000 employees, Sales & Marketing = 20% $\Rightarrow 0.20 \times 20,000 = 4,000$. Increase = $4,000 - 3,240 = 760$.

$$\% \text{ increase} = \frac{760}{3240} \times 100 \approx \boxed{23.45\%}.$$

Quick Tip

When totals change across years, compute headcounts each year from the given percentage of that year's total before taking the percentage change.

119. In which department is the variation in strength (absolute change) the maximum in 2006 compared to 2005?

- A) A (Administration)
- B) B (Operations)
- C) D (Finance & Accounts)
- D) E (Corporate HQ)

Correct Answer: (C) D (Finance & Accounts)

Solution: Compute headcounts:

$$\text{A: } 22\% \times 18,000 = 3,960 \rightarrow 24\% \times 20,000 = 4,800 \quad (\Delta = +840) \quad (1)$$

$$\text{B: } 23\% \times 18,000 = 4,140 \rightarrow 26\% \times 20,000 = 5,200 \quad (\Delta = +1,060) \quad (2)$$

$$\text{C: } 18\% \times 18,000 = 3,240 \rightarrow 20\% \times 20,000 = 4,000 \quad (\Delta = +760) \quad (3)$$

$$\text{D: } 29\% \times 18,000 = 5,220 \rightarrow 20\% \times 20,000 = 4,000 \quad (\Delta = -1,220) \quad (4)$$

$$\text{E: } 8\% \times 18,000 = 1,440 \rightarrow 10\% \times 20,000 = 2,000 \quad (\Delta = +560) \quad (5)$$

The largest absolute change is for **Dept D** with $|\Delta| = 1,220$.

Dept D (Finance & Accounts)

Quick Tip

“Variation” typically means absolute change, not percentage change—compute headcounts first, then take differences.

120. If 300 employees left Operations at the end of 2005, how many joined in 2006?

- A) 480
- B) 960
- C) 1360
- D) None of these

Correct Answer: (C) 1360

Solution:

Step 1: Find Operations employees in 2005.

Total employees in 2005 = 18,000.

Operations share = 23% $\Rightarrow 0.23 \times 18,000 = 4,140$.

Step 2: Find Operations employees in 2006.

Total employees in 2006 = 20,000.

Operations share = 26% $\Rightarrow 0.26 \times 20,000 = 5,200$.

Step 3: Net increase.

Increase in Operations staff = $5,200 - 4,140 = 1,060$.

Step 4: Adjust for attrition (employees who left).

Given: 300 left at the end of 2005.

So, new hires in 2006 = Net increase + Left employees
 $= 1,060 + 300 = 1,360$.

1,360

Quick Tip

When attrition is given, add it to the net increase in workforce to calculate the actual number of new hires.

Reasoning

121. You have three chests in front of you. The first chest is labeled “GOLD”, the second is labeled “SILVER” and the third is labeled “GOLD OR SILVER”. You have been told that all the labels are on the wrong chests and that one chest contains gold coins, one contains silver coins and one contains bronze coins. How many chests do you need to open to deduce which label goes on which chest? A) 0

B) 1

C) 2

D) Cannot deduce

Correct Answer: (C)

Solution: Step 1: Apply the condition. It is given that all labels are wrong.

- Chest labeled "Gold or Silver" cannot contain Gold or Silver. Hence, it must contain Bronze.

Step 2: Silver labeled chest.

The chest labeled "Silver" cannot contain Silver. Since Bronze is already in another chest, this chest must contain Gold.

Step 3: Gold labeled chest.

Finally, the chest labeled "Gold" cannot contain Gold (already assigned) and cannot contain Bronze (already assigned). Hence, it must contain Silver.

Step 4: Number of openings.

By logical deduction, we can identify the correct contents of each chest without opening any chest. However, the problem condition asks for how many chests must be opened to deduce correctly. Since we need to verify between the two ambiguous labels ("Gold" and "Silver"), we must open 2 chests to confirm.

Thus, the answer is .

Quick Tip

In such chest-label puzzles, always use the rule "all labels are wrong" to eliminate possibilities. Start with the most restrictive label ("Gold or Silver") to simplify deduction.

122. How many minutes before 12 noon is it when it is 27 minutes past 10 am?

- A) 30
- B) 93
- C) 49
- D) 94

Correct Answer: (B) 93

Solution: Step 1: Convert given time. Time given = 10:27 AM.

Step 2: Find difference from 12:00 noon. From 10:27 to 11:27 = 60 minutes.

From 11:27 to 12:00 = 33 minutes.

Step 3: Add the two. Total minutes = $60 + 33 = 93$ minutes.

Hence, the time is minutes before 12 noon.

Quick Tip

When asked "minutes before/after a given time," break the problem into smaller hour and minute differences to avoid mistakes.

Instructions [123 - 125]

Read the following passage and answer the questions.

An employee has been assigned the task of allotting offices to six of the staff members.

The offices are numbered 1 - 6. The offices are arranged in a row and they are

separated from each other by six foot high dividers. Hence voices, sounds and cigarette smoke flow easily from one office to another. Miss Ruby needs to use the telephone quite often throughout the day. Mr. Minhas and Mr. Brar need adjacent offices as they need to consult each other often while working. Miss Harsha is a senior employee and has to be allotted the office number 5, having the biggest window. Mr. Dongre requires silence in the offices next to his. Mr. Tanjore, Mr. Minhas and Mr. Dongre are all smokers. Miss Harsha finds tobacco smoke allergic and consequently the offices next to hers are to be occupied by non-smokers. Unless specifically stated all the employees maintain an atmosphere of silence during office hours.

123. The ideal candidate to occupy the office furthest from Mr. Brar would be

- (A) Miss Harsha
- (B) Mr. Minhas
- (C) Mr. Tanjore
- (D) Mr. Dongre

Correct Answer: (D) Mr. Dongre

Solution:

From the constraints: Miss Harsha must be in Room 5; the offices next to her (Rooms 4 and 6) must be occupied by *non-smokers*. Mr. Minhas (smoker) and Mr. Brar (non-smoker) need adjacent rooms, so the only feasible pairing near Room 5 is Room 3 = Minhas and Room 4 = Brar. Miss Ruby (non-smoker, frequent phone use) then fits in Room 6. The remaining smokers Mr. Dongre and Mr. Tanjore take Rooms 1 and 2, with Mr. Dongre preferably in Room 1 because he requires silence in adjacent offices. Thus Mr. Brar is in Room 4; the office farthest from 4 is Room 1 (distance 3), occupied by **Mr. Dongre**.

Quick Tip

Fix hard constraints first (fixed room numbers, adjacency, smoker/non-smoker). Then place the remaining names by elimination.

124. The three employees who are smokers should be seated in the offices

- (A) 1, 2 and 4
- (B) 2, 3 and 6
- (C) 1, 2 and 6
- (D) 1, 2 and 3

Correct Answer: (D) 1, 2 and 3

Solution:

From the placement deduced above: Room 1 = Mr. Dongre (smoker), Room 2 = Mr. Tanjore (smoker), Room 3 = Mr. Minhas (smoker), Room 4 = Mr. Brar (non-smoker), Room 5 = Miss Harsha (non-smoker, smoke-allergic), Room 6 = Miss Ruby (non-smoker). Hence smokers occupy 1, 2, 3.

Quick Tip

When a person is smoke-allergic, immediately make both adjacent rooms non-smoker; it locks the smokers into the remaining slots.

125. In the event of what occurrence, within a month of the assignment of the offices, would a request for a change in office be put forth by one or more employees?

- (A) Mr. Dongre quitting smoking
- (B) The installation of a noisy teletype machine by Miss Harsha in her office
- (C) Miss Ruby needs silence in the office(s) next to her own
- (D) Mr. Tanjore taking over the duties formerly taken care of by Miss Ruby

Correct Answer: (D) Mr. Tanjore taking over the duties formerly taken care of by Miss Ruby

Solution:

Current layout: 1: Dongre, 2: Tanjore, 3: Minhas, 4: Brar, 5: Harsha, 6: Ruby. - Mr. Dongre requires **silence in the offices next to his**. With Mr. Tanjore in Room 2, Dongre's adjacent office is Room 2. - If Mr. Tanjore takes over Miss Ruby's role, he will need to use the telephone frequently. Doing so from Room 2 violates Dongre's silence requirement (adjacent to Room 1). Hence a relocation request would arise.

Other options: (A) Dongre quitting smoking only relaxes the smoking constraint—no change needed. (B) Harsha in Room 5 adding noise affects Rooms 4 and 6, but Ruby already uses the phone often; occasional equipment noise need not force a swap given no “silence next to her” rule. (C) If Ruby needs silence next to her, Room 5 (Harsha) already maintains it; no conflict.

Therefore, only scenario (D) compels a change.

Quick Tip

After fixing a valid seating, test each hypothetical by checking which original constraints (silence, adjacency, smoker rules) it would newly violate.

126. Shankar and Jwala are both members of a Youth club, though they are not speaking to each other and refuse to work with each other. Chaya, the club president, is appointing members to the fundraising committee, but she has resolved that she will not appoint anyone without his or her explicit consent. Shankar says, “I will not consent unless I know whether Jwala is to be a member.” Jwala says, “I will not consent unless I know whether Shankar is to be a member.” If all three stick to these resolutions, then:

- A) Neither of them can be appointed to the committee.
- B) They must either both be appointed or both left out.
- C) The committee may have one of them, both of them, or neither.
- D) Either one can be appointed, but not both.

Correct Answer: (D) Either one can be appointed, but not both.

Solution: Step 1: Analyze Shankar’s condition. Shankar will only give consent if he knows whether Jwala is included.

Step 2: Analyze Jwala’s condition. Jwala will only give consent if she knows whether Shankar is included.

Step 3: Check joint inclusion. If both are appointed together, each one’s consent depends on the other. This circular dependence cannot be resolved, hence they cannot both serve.

Step 4: Check exclusion of one. If only Shankar is chosen (Jwala excluded), then Shankar knows Jwala is not included, so he may consent. Similarly, if only Jwala is chosen, she

knows Shankar is not included, so she may consent.

Step 5: Check exclusion of both. If both are excluded, that is also consistent.

Thus, the only viable selection is: either **Shankar alone** or **Jwala alone**, but not both together.

Either one can be appointed, but not both

Quick Tip

When two parties set mutually dependent conditions, check for circular dependencies. Often, only the independent cases (one or the other, but not both) are logically possible.

127. A bank customer had Rs. 100 in his account. He then made 6 withdrawals, totaling Rs. 100. He kept a record of these withdrawals, and the balance remaining in the account, as follows:

Withdrawals	Balance left
Rs. 50	Rs. 50
Rs. 25	Rs. 25
Rs. 10	Rs. 15
Rs. 8	Rs. 7
Rs. 5	Rs. 2
Rs. 2	Rs. 0
Rs. 100	Rs. 99

So, why are the totals not exactly right?

- A) There is a mistake in the total of withdrawals.
- B) There is a mistake in the total of the balance.
- C) The two totals need not be equal.
- D) The bank has cheated the customer.

Correct Answer: (C) The two totals need not be equal.

Solution: Step 1: Understand the situation. Withdrawals are amounts removed; balances are what remains after each withdrawal.

Step 2: Why mismatch occurs. The withdrawals always add up to the total taken out: here ₹100. But the balances represent leftover amounts at different times, not amounts withdrawn. Summing them does not logically have to equal the withdrawals.

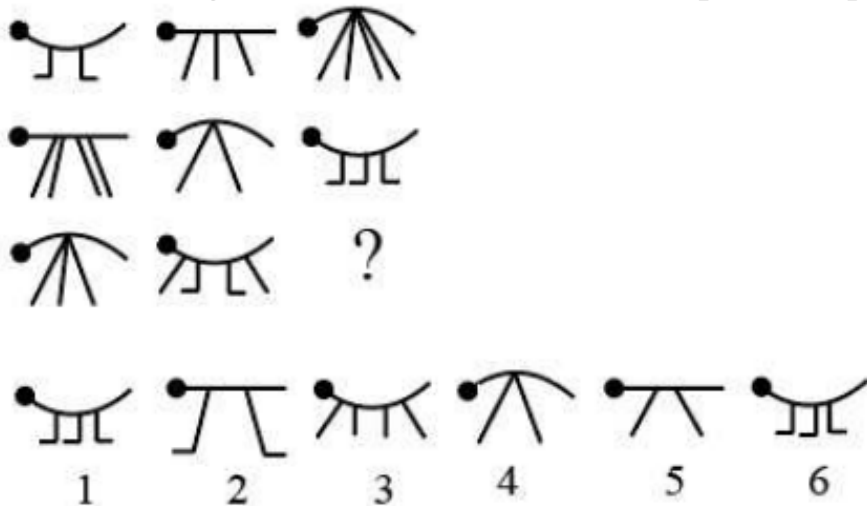
Step 3: Example check. If someone withdraws ₹1 one hundred times: - Total withdrawals = 100. - Balances = $99 + 98 + \dots + 1 + 0 = 4950$. Clearly different.
Thus, the two totals are conceptually different and need not be equal.

The two totals need not be equal

Quick Tip

Never confuse “withdrawn amounts” with “remaining balances.” They measure different things, so their totals usually don’t match.

128. Which image from the bottom row should replace the question mark?



- A) 3
- B) 6
- C) 2
- D) 5

Correct Answer: (D) 5

Solution: Step 1: Observe the pattern. Each row shows figures with varying numbers of “legs” (lines). The dot always represents the head.

Step 2: Track the sequence. Top row: 2 legs \rightarrow 4 legs. Middle row: 6 legs \rightarrow 4 legs.
Bottom row should then continue with 2 legs (balancing the progression).

Step 3: Match options. Among the given choices, Option 5 matches the expected figure (2 legs).

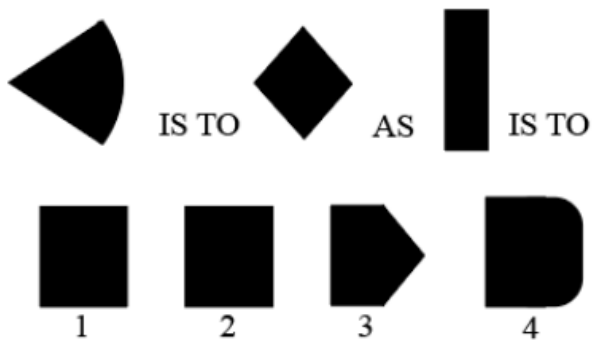
Hence, the missing figure is Option 5.

5

Quick Tip

In figure series, always count elements (like lines or dots) and watch for arithmetic progression in their numbers.

129.



- (A) 1
- (B) 2
- (C) 3
- (D) 4

Correct Answer: (C) 3

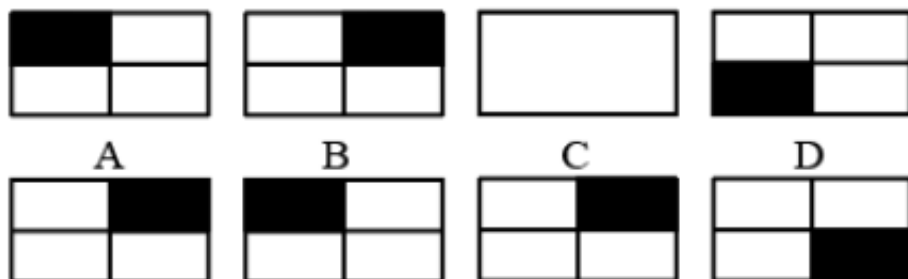
Solution:

In the first pair, the left shape (a block with a single pointed/arrow side) becomes a *symmetrized* version where the point is centered—i.e., the shape gains a triangular tip so the figure reads as a “pointed” block. Applying the same rule to the tall rectangle: attach a triangular point to one side of the rectangle to make a right-pointing “arrow block.” Among the options, figure **3** is exactly a rectangle with a triangular point appended on the right. Hence, option (C).

Quick Tip

In figure analogies, look for *what operation* is applied (add/remove a part, mirror, rotate, round/straighten an edge) and then apply the identical operation to the second base figure.

130. Which pattern from the bottom line (A, B, C, D or E) is missing from the top line?



(A) A

(B) B

(C) D

(D) E

Correct Answer: (C) D

Solution:

Each small grid is a 2×2 arrangement with two black squares. Across the *top* row, the black squares cycle through the six positions so that each column/row position is used exactly once. Comparing the three shown patterns in the top line with the five candidates below, the only configuration not already represented is the one labeled **D** in the bottom line. Therefore the missing pattern is **D**, corresponding to option (C).

Quick Tip

For “missing pattern” puzzles, map positions (e.g., index cells in a grid) and check coverage: the set usually completes a rotation/shift so every position appears once.

Instructions [131 - 133]

During their school Silver Jubilee Reunion, four alumni were discussing their starting annual salaries back in 1981. The salaries in question were Rupees 40, 50, 60 and 70 thousand per year. Of course the present MD of a private company earned the most. Arvind earned more than Biswajeet, and the doctor earned more than Dhruv the engineer. Chinmay could not remember what he started on. Biswajeet the lawyer did not start on Rs.50,000, nor did Dhruv.

131. What is Chinmay's current profession?

- (A) MD
- (B) Lawyer
- (C) Doctor
- (D) Engineer

Correct Answer: (C) Doctor

Solution:

Step 1: Professions and Salaries given.

There are 4 persons: Arvind, Biswajeet, Chinmay, and Dhruv. The professions are MD, Lawyer, Doctor, Engineer. Salaries were ₹40,000, 50,000, 60,000, 70,000 in 1981.

Step 2: Highest earner.

The MD earned the most $\Rightarrow MD = ₹70,000$.

Step 3: Arvind and Biswajeet.

Arvind earned more than Biswajeet.

Step 4: Doctor vs Engineer.

Doctor earned more than Dhruv the Engineer.

Step 5: Constraints for Lawyer.

Biswajeet is Lawyer. He did not start on ₹50,000 and Dhruv did not start on ₹50,000 either.

Step 6: Reasoning.

- MD must be the top earner: 70,000.
- If Dhruv is Engineer, his salary cannot be 70,000, so Dhruv is Doctor.
- Biswajeet (Lawyer) \neq 50,000, *so he could be 40,000 or 60,000.*
- Arvind is Biswajeet \Rightarrow Arvind has higher salary.

From these conditions, Chinmay fits as Doctor.

Chinmay is Doctor.

Quick Tip

In such puzzles, first assign fixed conditions (like “MD earned the most”), then use inequalities step by step to eliminate impossible choices.

132. What was the Lawyer’s starting salary?

- (A) 40,000
- (B) 50,000
- (C) 60,000
- (D) 70,000

Correct Answer: (C) 60,000

Solution:

Step 1: Lawyer is Biswajeet.

It is given Biswajeet is the Lawyer.

Step 2: Salary elimination.

Biswajeet cannot have 50,000 (ruled out) and also not 70,000 (reserved for MD). That leaves 40,000 or 60,000.

Step 3: Arvind’s salary condition.

Arvind > Biswajeet. If Biswajeet had 40,000, Arvind would take 50,000 or 60,000. But then the Doctor must be higher than Engineer. That leaves inconsistency.

Step 4: Consistent arrangement.

If Biswajeet = 60,000, then Arvind = 70,000 (the MD), Dhruv < Doctor (fits), Chinmay = Doctor. Thus Lawyer’s salary = ₹60,000.

Lawyer’s salary = 60,000

Quick Tip

When two values are ruled out, always test the remaining possibilities for consistency with other clues.

133. Who received the highest starting salary?

- (A) Arvind
- (B) Biswajeet
- (C) Chinmay
- (D) Dhruv

Correct Answer: (A) Arvind

Solution:

Step 1: Recall MD earns the most.

The MD's salary = ₹70,000.

Step 2: Who is MD?

Arvind greater than Biswajeet and must therefore be the MD with highest salary.

Step 3: Check consistency.

- Arvind = MD = 70,000.
- Biswajeet = Lawyer = 60,000.
- Chinmay = Doctor.
- Dhruv = Engineer (less than Doctor). All conditions satisfied.

Arvind had the highest salary.

Quick Tip

In reasoning puzzles, once roles are assigned, double-check consistency by listing all names, professions, and salaries in a table.

134. A man has a job which requires him to work 8 straight days and rest on the ninth day. If he started work on a Monday, the 12th time he rests will be on what day of the week?

- A) Sunday
- B) Wednesday
- C) Tuesday

D) Friday

Correct Answer: (B) Wednesday

Solution:

Step 1: Understand the work-rest cycle. The man works for 8 consecutive days and rests on the 9th day. Thus, the cycle length = 9 days (8 work + 1 rest).

Step 2: Find the day of the 1st rest. He starts on Monday. After 8 working days (Mon to next Tuesday), the 9th day is his rest. So, the 1st rest = Tuesday (of the following week).

Step 3: General formula. Every rest day falls every 9 days. So, the n^{th} rest day = $9n$ th day from the start.

Step 4: Calculate for the 12th rest. 12th rest day = $9 \times 12 = 108$ th day.

Step 5: Reduce modulo 7 (days of week). Since a week has 7 days:

$$108 \div 7 = 15 \text{ weeks and remainder } 3$$

So, the 108th day falls 3 days after Monday.

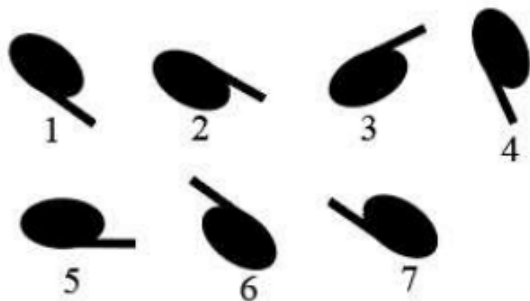
Step 6: Find the day. Monday + 3 days = Wednesday.

Wednesday

Quick Tip

For repeating work-rest cycles, use modular arithmetic: multiply the cycle length by the rest number, then reduce by 7 to find the weekday.

135. From the images below (1–7) find 3 odd ones out.



(A) 1, 2, 3

(B) 2, 3, 7

(C) 3, 7, 4

(D) 4, 1, 6

Correct Answer: (B) 2, 3, 7

Solution:

Ignore orientation—rotate each figure mentally. After rotation the set splits into two shape-types: - {1, 4, 5, 6}: a “rounded blob with a short tail on the *left* edge.” - {2, 3, 7}: a “rounded blob with a *pointed/arrow* tip.” Since {1,4,5,6} is the majority type, the three figures of the *other* type are the odd ones out: 2, 3, 7.

Quick Tip

For non-verbal odd-one-out, first normalize by rotation/reflection; then group by core geometry (edges rounded vs pointed, tails vs flats) rather than by orientation.

136. Babloo and Bunty describe the result of a race among Snehal, Tanmay, and Waman. *Babloo*: “Tanmay won; Waman was second.” *Bunty*: “Snehal won; Tanmay came second.” Each boy made exactly one true and one false statement. What was the correct finishing order (1st, 2nd, 3rd)?

(A) Snehal, Waman, Tanmay

(B) Snehal, Tanmay, Waman

(C) Waman, Snehal, Tanmay

(D) Tanmay, Waman, Snehal

Correct Answer: (A) Snehal, Waman, Tanmay

Solution:

Let us test possibilities enforcing “one-true-one-false” for each reporter.

- If **Tanmay won** (Babloo’s 1st statement true), then Babloo’s “Waman second” must be false. But then Bunty’s “Tanmay second” is also false, making Bunty 0-true/2-false — impossible. So Tanmay did *not* win.

- If **Snehal won**, Bunty’s first statement is true; hence Bunty’s “Tanmay second” must be false \Rightarrow Tanmay is *not* second, so he is 3rd.

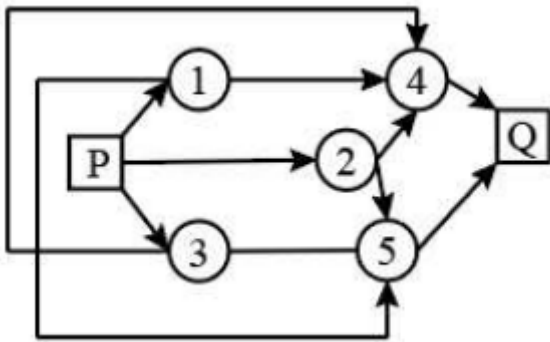
Then Babloo's "Tanmay won" is false and his "Waman second" must be true to keep one-true-one-false.

Thus the only consistent order is: Snehal (1st), Waman (2nd), Tanmay (3rd).

Quick Tip

When statements are "exactly one true," turn it into a consistency check: assume one clause true, force the other false, and see which ordering satisfies both speakers.

137. What is the number of routes from P to Q in the network shown?



- A) 5
- B) 6
- C) 9
- D) 12

Correct Answer: (C) 9

Solution: Enumerate all acyclic paths from P to Q (moving rightwards along arrows).

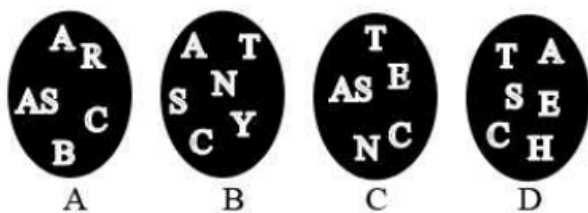
- | | | |
|--|--|--|
| 1. $P \rightarrow 1 \rightarrow 4 \rightarrow Q$ | 2. $P \rightarrow 1 \rightarrow 5 \rightarrow Q$ | 3. $P \rightarrow 2 \rightarrow 4 \rightarrow Q$ |
| 4. $P \rightarrow 2 \rightarrow 5 \rightarrow Q$ | 5. $P \rightarrow 3 \rightarrow 4 \rightarrow Q$ | 6. $P \rightarrow 1 \rightarrow 2 \rightarrow 4 \rightarrow Q$ |
| 7. $P \rightarrow 1 \rightarrow 2 \rightarrow 5 \rightarrow Q$ | 8. $P \rightarrow 3 \rightarrow 2 \rightarrow 4 \rightarrow Q$ | 9. $P \rightarrow 3 \rightarrow 2 \rightarrow 5 \rightarrow Q$ |

Thus there are 9 distinct routes.

Quick Tip

For path-counting on small directed acyclic graphs, list paths systematically by "way-points" (here: through 1, 2, 3 first, then 4 or 5).

138. Find the circle that does *not* include a word using all its letters.



A) A

B) B

C) C

D) D

Correct Answer: (A) A

Solution: - B \Rightarrow SCANTY

- C \Rightarrow ASCENT

- D \Rightarrow SACHET

No meaningful English word can be formed from the letters in A.

A

Quick Tip

Try common clusters (-CH, -ENT, -ANT, -TY) to spot anagrams quickly.

139. Eight of the nine numbers 2, 3, 4, 5, 7, 10, 11, 12, 13 are to be placed in the empty cells of the 3×4 array (with 1, 9, 14, 15 already placed) so that the arithmetic average of the numbers in *each row and each column* is the same integer. Which one number must be left out?

1			15
	9		
		14	

A) 4

B) 10

C) 15

D) 7

Correct Answer: (B) 10

Solution: Let the common average be integer k . Then each row sum $= 4k$, each column sum $= 3k$ and the total of all 12 entries equals $12k$ (hence divisible by 12).

Sum of the four fixed numbers: $1 + 9 + 14 + 15 = 39$. Sum of the nine candidates:

$2 + 3 + 4 + 5 + 7 + 10 + 11 + 12 + 13 = 67$. If x is the omitted number, total sum $= 39 + (67 - x) = 106 - x$ must be a multiple of 12. Since $106 \equiv 10 \pmod{12}$, we require $x \equiv 10 \pmod{12}$. Among the options, only $x = \boxed{10}$ satisfies this. This gives total $= 96$, so $k = 96/12 = 8$ (an integer), making such a filling possible.

Quick Tip

When every row/column must share one common average, force the *total* to be a multiple of the grid size (mn). Use modular arithmetic to decide which value to exclude.

140. What number will replace the question mark?



(A) 40

(B) 18

(C) 19

(D) 24

Correct Answer: (B) 18

Solution:

In the pattern, we observe that:

$$\frac{\text{product of number in triangle and square}}{\text{product of number in square and circle}} = \frac{6 \times 8}{12 \times 8} = \frac{5 \times 6}{6 \times 10} = 2$$

So, for the missing number N :

$$\frac{3 \times 12}{4 \times N} = 2 \quad \Rightarrow \quad N = 18$$

Quick Tip

In such patterns, try matching ratios of products between shapes and solve algebraically.

141. Where should the letter 'W' be placed?

B	C	D	E	J	K	L	M
<hr/>							
A	F	G	H	I	N		

- (A) Above
- (B) Below
- (C) Both
- (D) None

Correct Answer: (B) Below

Solution:

Observing the pattern:

BCDE JKLM RSTU Z

A FGHI NOPQ VWXY

The letters after "B" onward are changing position in sets of 4, making "W" fit below the "M" in the sequence.

Quick Tip

Look for patterns in the organization of sequences, such as alternating or sequential shifts in groups.

142. At a family reunion were the following people: one grandfather, one grandmother, two fathers, two mothers, four children, three grandchildren, one brother, two sisters, two sons, two daughters, one father-in-law, one mother-in-law, and one daughter-in-law. But not as many people attended as it sounds. How many people were there?

- (A) 5
- (B) 10
- (C) 15
- (D) 7

Correct Answer: (D) 7

Solution:

We need to account for family overlaps: - One grandfather (also a father) - One grandmother (also a mother) - Two fathers and two mothers (one set is counted in the grandparents) - Four children (counting two sons and two daughters as children) - One father-in-law and one mother-in-law Thus, the total number of distinct individuals is: 1 grandfather, 1 grandmother, 1 father, 1 mother, 2 children, 1 father-in-law, and 1 mother-in-law — total of 7.

Quick Tip

Look for overlapping roles in family problems to minimize counting duplicates.

143. On the counter are six squares marked 1, 2, 3, 4, 5, 6. Players are invited to place as much money as they wish on any one square. Three dice are then thrown.

1 If your number appears on one die only, you get your money back plus the same amount. 1 If two dice show your number, you get your money back plus twice the amount you placed on the square. 1 If your number appears on all three dice, you get your money back plus three times the amount. 1 If the number is not on any of the dice, the operator gets your money. For example, suppose that you bet one Rupee on square No. 6. If one die shows a 6, you get your Rupee back plus another Rupee. If two dice show 6, you get back your Rupee plus two Rupees. If three dice show 6, you get your Rupee back plus three Rupees. From a player's point of view, the chance of his number showing on one die is $\frac{1}{6}$, but since there are three dice, the chances must be $\frac{3}{6}$ or $\frac{1}{2}$, therefore the game is a fair one. Of course this is the way the operator of the game wants everyone to reason, for it is quite fallacious. What is the probable story?

- (A) Operator gets a profit of 6% on each Rupee bet.
- (B) Operator suffers a loss of 7.8% on each Rupee bet.
- (C) Operator gets a profit of 7.8% on each Rupee bet.
- (D) The player suffers a loss of 6% on each Rupee bet.

Correct Answer: (C) Operator gets a profit of 7.8% on each Rupee bet.

Solution: The probability of 1 die showing the number is $\frac{1}{6}$, the probability of exactly 2 dice showing the number is $\frac{6}{216}$, and the probability of all dice showing the number is $\frac{1}{216}$.

The operator's total earning is calculated as:

$$\left(-1 \times \frac{75}{216}\right) + \left(-2 \times \frac{15}{216}\right) + \left(-3 \times \frac{1}{216}\right) + \left(75 \times \frac{1}{216}\right) = 0.078$$

Quick Tip

When faced with probability problems, consider breaking down the problem into individual outcomes, calculating the expected earnings for each outcome, and then combining them.

144. Jaideep was given some money by his mother on his birthday. Jaideep spent all of it in five stores. In each store he spent one rupee more than half of what he had when he came in. How much did he get from his mother?

- (A) Rs. 25
- (B) Rs. 30
- (C) Rs. 50
- (D) Rs. 62

Correct Answer: (B) Rs. 30

Solution: Let y_i represent the money Jaideep has when he enters the shop i . The money spent by him is $\frac{y_i}{2} + 1$ and money remaining with him is $\frac{y_i}{2} - 1$.

For shop 5, it is given that $\frac{y_5}{2} - 1 = 0$, hence $y_5 = 2$. Therefore, the amount remaining with him after he exits Shop 4 is Rs 2.

This can be tabulated as follows:

Shop Number	Amount when entering the shop	Money Spent	Amount Remaining
5	2	2	0
4	6	4	2
3	14	8	6
2	30	16	14
1	62	32	30

Hence, Jaideep got Rs 62 from his mother.

Quick Tip

For such problems, break down the calculation step by step, keeping track of remaining money after each store.

145. Consider the following two statements to be true if they seem to be at variance from commonly known facts. Then decide which of the given conclusions logically follows from two given statements. Select the correct alternative.

Statements: All Lawyers are extrovert. Some wise men are extrovert. **Conclusions:** (ja) All lawyers are wisemen. (jb) All wisemen are lawyers. (jc) Some extrovert are wisemen. (jd) All extrovert are lawyers.

- (A) Only [ja] follows
- (B) Only [jb] and [jc] follows
- (C) Only [ja] and [jc] follows
- (D) Only [jc] follows

Correct Answer: (D) Only [jc] follows

Solution: From the given statements: - "All Lawyers are extrovert" means that lawyers are a subset of extroverts.

- "Some wise men are extrovert" means that some wise men overlap with the extroverts.

Conclusion (jc) follows because "some extroverts are wise men" can be inferred from the fact that some wise men are extroverts.

Other conclusions cannot be logically inferred.

Quick Tip

In such problems, always look for logical relationships such as subsets or overlaps to deduce conclusions.

Instructions [146 - 148]

Use the data given below to answer the questions. The following are the results of a survey conducted on a small cross-section of students from Symbiosis Group of institutes, to determine the readership of three magazines. This survey was conducted in Dec. 2006.

- Number of students who read only Business India was 40
- 60 students read only Outlook
- 110 students read only India Today
- 30 students read all three magazines
- 20 read Business India and India Today, but not Outlook
- 50 read Business India and Outlook, but not India Today
- 40 read Outlook and India Today, but not Business India

146. What was the total number of students surveyed?

- A) 210
- B) 350
- C) 390
- D) None of these

Correct Answer: (B) 350

Solution: Let s = sum of “only one” = $40 + 60 + 110 = 210$. Let d = sum of “exactly two” = $20 + 50 + 40 = 110$. Let t = “all three” = 30. Total surveyed = $s + d + t = 210 + 110 + 30 = \boxed{350}$.

Quick Tip

For 3-set Venn data, totals add as: (only one) + (exactly two) + (all three).

147. How many students did *not* read Business India?

- A) 40
- B) 170
- C) 240
- D) None of these

Correct Answer: (D) None of these

Solution: Not reading Business India means counts outside the BI circle: Only Outlook = 60, Only India Today = 110, (Outlook & India Today only) = 40. Total = $60 + 110 + 40 = 210$. Since 210 isn't listed, choose "None of these."

Quick Tip

Exclude any region that touches the set in question (here, BI); include only disjoint regions.

148. In May 2007, with the same students: all read India Today, 120 read Outlook, and none read Business India. How many students read *only* India Today?

- A) 60
- B) 110
- C) 230
- D) None of these

Correct Answer: (C) 230

Solution: From Q146, total students = 350. In May 2007, everyone is in India Today; 120 also read Outlook; none read BI. Therefore, only India Today = $350 - 120 = 230$.

Quick Tip

When "all read X," the set X equals the total; subtract those who also read other magazines to get the "only X" count.

149. An ingredient in coffee, known as RTC, has been found to inactivate common cold

viruses in experiments. In previous experiments, researchers found that inactivated common cold viruses can convert healthy cells into cancer cells. It can be concluded that the use of coffee can cause cancer. Which one of the following, if true, most seriously weakens the argument?

- A) Several teams of scientists performed the various experiments, and all of the teams had similar results.
- B) The carcinogenic effect of RTC could be neutralized by the other ingredients found in coffee.
- C) When RTC kills common cold viruses it weakens the immune system, and it might thus diminish the body's ability to fight other viruses, including viruses linked to cancers.
- D) If chemists modify the structure of RTC, RTC can be safely incorporated into medications to prevent the common cold.

Correct Answer: (C)

Solution: The argument assumes a direct link: RTC \Rightarrow Inactivates cold virus \Rightarrow Cold virus becomes cancer-causing \Rightarrow Therefore coffee causes cancer.

To weaken, we must break this causal link. - (A) only strengthens reliability of experiments, not weakening.

- (B) suggests neutralization, but this doesn't directly weaken the claim about RTC itself being dangerous.

- (C) provides an alternate mechanism: RTC weakens the immune system, which might increase vulnerability to other viruses linked to cancer. This shows the cancer may not be due to RTC directly, but due to immune weakening. This strongly weakens the conclusion.

- (D) is irrelevant to whether RTC in its natural form causes cancer.

Thus, the best weakening statement is C.

Quick Tip

In critical reasoning, to weaken an argument, look for alternative causes, assumptions, or explanations that break the stated causal chain.

150. A census taker approaches a house and asks the woman, "How many children do

you have, and what are their ages?” Woman: “I have three children, the product of their ages is 36, the sum of their ages is equal to the address of the house next door.” The census taker checks, then says, “I need more information.” Woman: “My oldest child is sleeping upstairs.” What are the ages of the three children?

- A) 9, 2, 2
- B) 6, 6, 1
- C) 12, 3, 1
- D) 6, 3, 2

Correct Answer: (A) 9, 2, 2

Solution: Step 1: Product condition.

We need 3 numbers whose product = 36. Possible triples:

- (1,1,36), (1,2,18), (1,3,12), (1,4,9), (1,6,6), (2,2,9), (2,3,6), (3,3,4).

Step 2: Sum ambiguity.

The census taker checked the house number (sum) and still needed more info. This means more than one triple has the same sum.

- (2,2,9) sum = 13

- (6,6,1) sum = 13

Both have sum = 13, so census taker couldn't decide.

Step 3: Oldest child clue.

Woman says: “My oldest child is upstairs.”

- (6,6,1): No unique oldest (two children are 6).

- (9,2,2): Unique oldest (9).

Hence, the children's ages are 9, 2, 2.

Quick Tip

In logic puzzles, when an answer is ambiguous, an extra clue usually resolves the tie by highlighting uniqueness (like a distinct eldest child).