

All India Mock for LIC AAO Prelims 2023 (4th-5th February 2023)

Directions (1-5): निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिए और नीचे दिए गए प्रश्नों के उत्तर दीजिए।

छह खिलाड़ी अर्थात्: A, D, N, P, S और V अलग अलग इंडोर खेल खेलते हैं अर्थात्: स्नूकर, स्क्वैश, बॉलिंग, शतरंज, तैराकी और मुक्केबाजी, लेकिन जरूरी नहीं समान क्रम में हो। उनमें से प्रत्येक अलग-अलग रंग पसंद करता है अर्थात्: ब्लैक, व्हाइट, पिंक, ब्राउन, पर्पल और लाइम। उनमें से प्रत्येक अलग अलग देश से सम्बन्धित है अर्थात् : भारत, यूएसए और यूके लेकिन जरूरी नहीं समान क्रम में हो। केवल दो खिलाड़ी समान देश से सम्बन्धित हैं।

D, UK से सम्बन्धित है और सफ़ेद रंग पसंद करता है लेकिन वह बॉलिंग नहीं खेलता है। चेस खेलने वाला व्यक्ति भारत से सम्बन्धित है। S उसी देश से सम्बन्धित है जिस देश से काला रंग पसंद करने वाला व्यक्ति सम्बन्धित है, लेकिन S स्क्वैश नहीं खेलता है। स्नूकर खेलने वाला व्यक्ति भारत से सम्बन्धित है। तैराकी खेलने वाला व्यक्ति, यूके से सम्बन्धित है। A, तैराकी खेलता है और वह न तो पिंक न लाइम रंग पसंद करता है। स्क्वैश खेलने वाला व्यक्ति यूएसए से सम्बन्धित है। P, चेस खेलता है और ब्राउन रंग पसंद करता है, लेकिन वह वह उसी देश से सम्बन्धित नहीं है जिस देश से N सम्बन्धित है। V, लाइम रंग पसंद नहीं करता है।

Q1. निम्नलिखित में से कौन सा इंडोर खेल S खेलता है?

- (a) स्नूकर
- (b) मुक्केबाजी
- (c) तैराकी
- (d) बॉलिंग
- (e) इनमें से कोई नहीं

Q2. निम्नलिखित में से कौन पर्पल रंग पसंद करता है?

- (a) S
- (b) V
- (c) A
- (d) N
- (e) इनमें से कोई नहीं

Q3. निम्नलिखित में से कौन मुक्केबाजी खेलता है?

- (a) D
- (b) V
- (c) S
- (d) N
- (e) इनमें से कोई नहीं

Q4. निम्नलिखित में से कौन भारत से सम्बन्धित है?

- (a) S
- (b) V
- (c) N
- (d) A
- (e) इनमें से कोई नहीं

Q5. निम्नलिखित में से कौन काला रंग पसंद करता है?

- (a) V
- (b) N
- (c) A
- (d) S
- (e) इनमें से कोई नहीं

Directions (6-10): दिए गये प्रश्नों के उत्तर देने के लिए निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिए। एक निश्चित कूट भाषा में-

“every book is good” को “P8 W8 B10 H4” के रूप में कूटबद्ध किया जाता है

“Novels in library” को “B14 H12 M4” के रूप में कूटबद्ध किया जाता है

“Lots of knowledge” को “U4 H8 V18” के रूप में कूटबद्ध किया जाता है

Q6. “Exam Result” के लिए क्या कूट है?

- (a) M4 S5
- (b) G12 N8
- (c) H12 V8
- (d) G3 V12
- (e) इनमें से कोई नहीं

Q7. "Education in School" के लिए क्या कूट है?

- (a) F9 N4 M18
- (b) M4 O14 M9
- (c) G8 P18 U12
- (d) M4 O12 M18
- (e) इनमें से कोई नहीं

Q8. "Stressed Students" के लिए क्या कूट है?

- (a) V8 H16
- (b) W16 H16
- (c) W8 H16
- (d) G18 X16
- (e) इनमें से कोई नहीं

Q9. "Study by tutor" के लिए क्या कूट है?

- (a) B4 I10 B10
- (b) I10 B2 B10
- (c) U4 B4 B14
- (d) B10 Y10 R10
- (e) इनमें से कोई नहीं

Q10. "Game Playground" के लिए क्या कूट है?

- (a) S8 W20
- (b) V20 H8
- (c) V8 W20
- (d) T15 W20
- (e) इनमें से कोई नहीं

Directions (11-15): निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिए और नीचे दिए गये प्रश्नों के उत्तर दीजिए।

आठ विद्यार्थी A, B, C, D, E, F, G और H एक लाइब्रेरी में एक आयताकार मेज के चारों ओर बैठे हैं, जहाँ तीन व्यक्ति प्रत्येक लंबी भुजा पर बैठे हैं और मेज की प्रत्येक छोटी भुजा पर एक व्यक्ति बैठा है। वे सभी केंद्र की ओर उन्मुख हैं। उनमें से प्रत्येक अलग-अलग सरकारी परीक्षा के लिए तैयारी कर रहा है अर्थात् : AFCAT, CDS, NDA, IBPS, SBI, RBI, SSC और IAS, लेकिन जरूरी नहीं कि समान क्रम में हो।

IAS के लिए तैयारी करने वाला व्यक्ति, D के दायें से दूसरे स्थान पर बैठा है। RBI के लिए तैयारी करने वाला व्यक्ति, E के बायें से तीसरे स्थान पर बैठा है। F और G एक दूसरे के विपरीत बैठे हैं। SSC के लिए तैयारी करने वाला व्यक्ति, C से विकर्णतः विपरीत बैठा है। B, AFCAT के लिए तैयारी करने वाले व्यक्ति के विपरीत बैठा है। IBPS के लिए तैयारी करने वाला व्यक्ति, SBI के लिए तैयारी करने वाले व्यक्ति के बायें से दूसरे स्थान

पर बैठा है और A के दायें से दूसरे स्थान पर बैठा है, जो SSC की तैयारी करने वाले व्यक्ति के निकटतम नहीं बैठा है। G, छोटी भुजा पर बैठा है और SSC के लिए तैयारी करने वाले व्यक्ति के ठीक बायें बैठा है। IBPS और SBI के लिए तैयारी करने वाले व्यक्ति मेज की समान भुजा पर नहीं बैठे हैं। IBPS के लिए तैयारी करने वाला व्यक्ति, IAS के तैयारी करने वाले व्यक्ति के बायें से तीसरे स्थान पर बैठा है, जो CDS के लिए तैयारी करने वाले व्यक्ति के विकर्णतः विपरीत नहीं बैठा है। C, AFCAT के लिए तैयारी नहीं कर रहा है।

Q11. निम्नलिखित में से कौन सी परीक्षा के लिए H तैयारी कर रहा है?

- (a) SBI
- (b) IAS
- (c) RBI
- (d) NDA
- (e) इनमें से कोई नहीं

Q12. निम्नलिखित में से कौन CDS के लिए तैयारी कर रहा है?

- (a) F
- (b) G
- (c) E
- (d) B
- (e) इनमें से कोई नहीं

Q13. निम्नलिखित में से कौन NDA के लिए तैयारी करने वाले व्यक्ति के विपरीत बैठा है?

- (a) E
- (b) A
- (c) H
- (d) D
- (e) इनमें से कोई नहीं

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Q14. निम्नलिखित पांच में से चार एक निश्चित तरीके से समूह से संबंधित हैं, ज्ञात कीजिए इनमें से कौन सा एक उस समूह से संबंधित नहीं है?

- (a) E, D
- (b) C, H
- (c) F, G
- (d) B, A
- (e) D, H

Q15. निम्नलिखित में से कौन B के निकटतम पड़ोसी हैं?

- (a) E, C
- (b) D, H
- (c) C, H
- (d) C, D
- (e) A, G

Directions (16-17): निम्नलिखित प्रश्न नीचे दी गई छह तीन अंकों की संख्याओं पर आधारित हैं:

368 145 647 276 451

Q16. यदि 2 को विषम अंकों में जोड़ा जाता है और 2 को सम अंकों से घटाया जाता है, तो निम्न में से कौन सी संख्या इस व्यवस्था के बाद प्राप्त होने वाली सबसे बड़ी संख्या है?

- (a) 451
- (b) 647
- (c) 368
- (d) 276
- (e) इनमें से कोई नहीं

Q17. यदि सभी अंकों को संख्या में अवरोही क्रम में व्यवस्थित किया जाता है, तो सबसे बड़ी और सबसे छोटी संख्या के बीच कितना अंतर है?

- (a) 322
- (b) 203
- (c) 101
- (d) 99
- (e) इनमें से कोई नहीं

Directions (18-20): नीचे दिए गए प्रत्येक प्रश्न में तीन या चार कथनों के बाद तीन या चार निष्कर्ष दिए गए हैं। आपको दिए गए सभी कथनों को सत्य मानना है भले ही वे सर्वज्ञात तथ्यों से भिन्न प्रतीत होते हों। सभी निष्कर्षों का अध्ययन कीजिए और सर्वज्ञात तथ्यों को नज़रंदाज़ करते हुए निर्णय लीजिये कि दिए गए निष्कर्षों में से कौन सा निष्कर्ष दिए गए कथनों का तार्किक रूप से अनुसरण नहीं करता है।

Q18. कथन :

कुछ ऑवर, सेकंड हैं
कुछ सेकंड, मिनट हैं
सभी मिनट, टाइम हैं

निष्कर्ष :

- I. कुछ टाइम, ऑवर नहीं हैं
 - II. कुछ ऑवर, मिनट हैं
 - III. सभी टाइम, ऑवर हो सकते हैं
 - IV. कुछ सेकंड, टाइम हैं
- (a) केवल I
 - (b) केवल IV
 - (c) केवल I और II
 - (d) कोई अनुसरण नहीं करता है
 - (e) सभी अनुसरण करते हैं

Q19. कथन:

कोई बुक, डायरी नहीं है
कोई डायरी, रजिस्टर नहीं है
कुछ रजिस्टर, फाइल हैं

निष्कर्ष :

- I. कुछ फाइल, डायरी नहीं हैं
 - II. सभी फाइल के डायरी होने की सम्भावना है
 - III. सभी बुक के फाइल होने की सम्भावना है
 - IV. कोई बुक, रजिस्टर नहीं है
- (a) केवल III
 - (b) केवल I
 - (c) केवल II
 - (d) II और IV
 - (e) सभी अनुसरण करते हैं

Q20. कथन :

कुछ लेनोवो, मोटो हैं
कोई एमआई, मोटो नहीं है
कुछ एमआई, विवो हैं

निष्कर्ष :

- I. कम से कम कुछ विवो, लेनोवो नहीं हैं
 - II. कुछ विवो, मोटो हैं
 - III. कुछ लेनोवो, एमआई नहीं हैं
 - IV. कम से कम कुछ मोटो, एमआई हैं
- (a) केवल II
 - (b) केवल III और II
 - (c) I और II
 - (d) ये सभी
 - (e) केवल I, II और IV

Directions (21-25): निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिए और नीचे दिए गए प्रश्नों के उत्तर दीजिए।

दस व्यक्ति अर्थात् : A, B, C, D, E, F, G, H, I और J हैं, जो एक पांच मंजिला इमारत में इस तरह से रहते हैं कि निचला तल संख्या 1 और इससे ऊपर का तल संख्या 2 एवं आगे इसी तरह से शीर्ष तल संख्या 5 है। प्रत्येक तल में 2 फ्लैट अर्थात् फ्लैट-1 और फ्लैट-2 हैं। तल-2 का फ्लैट-1, तल-1 के फ्लैट-1 के ठीक ऊपर है और तल-3 के फ्लैट-1 के ठीक नीचे है और इसी तरीके से फ्लैट-2 भी। फ्लैट-2, फ्लैट-1 के पूर्व में है।

F, A के पूर्व में रहता है। B विषम संख्या तल पर I से ऊपर रहता है। B और J के तलों के बीच दो तलों का अंतर है, जो विषम संख्या फ्लैट में रहता है। D, G के ऊपर रहता है और दोनों समान संख्या फ्लैट में रहते हैं।

A के ऊपर जितने तल हैं उतने ही तल F के नीचे हैं। F और H के तल के बीच एक तल का अंतर है, लेकिन दोनों की फ्लैट संख्या अलग है। E उस तल पर नहीं रहता है जिस तल पर D रहता है। I सम संख्या तल पर और सम संख्या फ्लैट में रहता है। I और C के तलों के बीच दो तलों का अंतर है, जो फ्लैट-1 में रहता है।

Q21. निम्नलिखित में से कौन चौथे तल के फ्लैट-1 में रहता है?

- (a) H
- (b) D
- (c) E
- (d) B
- (e) C

Q22. C कौन से तल पर रहता है?

- (a) पहले
- (b) दूसरे
- (c) तीसरे
- (d) चौथे
- (e) पांचवें

Q23. निम्नलिखित पाँच में से चार एक निश्चित तरीके से समूह से संबंधित हैं। निम्नलिखित में से कौन सा एक उस समूह से सम्बन्धित नहीं है?

- (a) H
- (b) A
- (c) G
- (d) B
- (e) J

Q24. J क्रमशः कौन से तल और फ्लैट में रहता है?

- (a) 4,2
- (b) 5,1
- (c) 1,2
- (d) 2,1
- (e) 4,1

Q25. निम्नलिखित में से कौन सम संख्या तल और सम संख्या फ्लैट पर रहता है?

- (a) H
- (b) I
- (c) G
- (d) J
- (e) E

Q26. आठ व्यक्ति P, Q, R, S, T, U, V और W समान क्रम में बाहर की उन्मुख होकर एक दूसरे से-समान दूरी पर एक वृत्ताकार मेज के चारों ओर बैठे हैं। उनकी स्थिति दक्षिणावर्त है। यदि R, दक्षिण की ओर उन्मुख है, तो W किस दिशा की ओर उन्मुख है?

- (a) पूर्व
- (b) उत्तर-पूर्व
- (c) पश्चिम
- (d) दक्षिण-पश्चिम
- (e) इनमें से कोई नहीं

Directions (27-28): निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिए और नीचे दिए गए प्रश्नों के उत्तर दीजिए।

पांच मित्र J, K, L, M और N निम्नलिखित तरीके से एक हॉल में बैठे हैं। L, J और K से समान दूरी पर है तथा तीनों सीधी पंक्ति में हैं। L और M के बीच की दूरी 10 मी है और L, M के पश्चिम में है। N, M के उत्तर में है तथा J और K क्रमशः उत्तर-दक्षिण दिशा में बैठे हैं। J और K के बीच की दूरी 20 मीटर है एवं M और N के बीच की दूरी 15 मीटर है।

Q27. J और N के बीच की न्यूनतम दूरी कितनी है?

- (a) $5\sqrt{5}$ मीटर
- (b) 6 मीटर
- (c) 10 मीटर
- (d) $\sqrt{130}$ मीटर
- (e) $5\sqrt{6}$ मीटर

Q28. N के संदर्भ में J किस दिशा में है?

- (a) दक्षिण-पश्चिम
- (b) पश्चिम
- (c) पूर्व
- (d) उत्तर-पूर्व
- (e) इनमें से कोई नहीं

Directions (29-30): दिए गये प्रश्नों के उत्तर देने के लिए निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिए।

परिवार के छः सदस्य A, B, C, D, E और F अलग-अलग आयु के हैं। C केवल A और E से बड़ा है। D, केवल B से छोटा है। E सबसे छोटा नहीं है। तीसरे सबसे बड़े व्यक्ति की आयु 48 वर्ष है। E की आयु 37 वर्ष है।

Q29. निम्नलिखित में से कौन सी C की संभावित आयु हो सकती है?

- (a) 55 वर्ष
- (b) 38 वर्ष
- (c) 26 वर्ष
- (d) 71 वर्ष
- (e) 49 वर्ष

Q30. दी गई जानकारी के संदर्भ में निम्नलिखित में से कौन सा कथन सत्य है?

- (a) D की आयु निश्चित ही 57 से कम है
- (b) F सबसे बड़ा है
- (c) C से केवल चार व्यक्ति बड़े हैं
- (d) इसकी संभावना है कि C की आयु 33 वर्ष है
- (e) कोई सत्य नहीं है

Directions (31-35): निम्नलिखित जानकारी का ध्यानपूर्वक अध्ययन कीजिए और नीचे दिए गए प्रश्नों के उत्तर दीजिए।

पाँच व्यक्ति A, B, C, D, E पाँच अलग-अलग तीर्थों अर्थात्: द्वारका, रामेश्वरम, शिरडी, वैष्णो देवी और तिरुपति की यात्रा पाँच अलग-अलग ट्रेनों अर्थात्: शताब्दी, राजधानी, गरीबरथ, दुरंतों और पंजाब मेल से करते हैं।

तिरुपति जाने वाला व्यक्ति, शताब्दी से यात्रा नहीं करता है। A तिरुपति या वैष्णो देवी की यात्रा नहीं करता है। B, दुरंतो या गरीबरथ से यात्रा नहीं करता है। C, रामेश्वरम जाता है। E न तो तिरुपति जाता है न दुरंतो से यात्रा करता है। C, गरीबरथ से यात्रा नहीं करता है। A, पंजाब मेल से यात्रा करता है। द्वारका जाने वाला व्यक्ति दुरंतो से यात्रा करता है।

Q31. वैष्णो देवी जाने वाला व्यक्ति किस ट्रेन से यात्रा करता है?

- (a) राजधानी
- (b) शताब्दी
- (c) पंजाब मेल
- (d) गरीबरथ
- (e) निर्धारित नहीं किया जा सकता

Q32. निम्नलिखित में से कौन राजधानी से यात्रा करता है?

- (a) B
- (b) C
- (c) D
- (d) E
- (e) निर्धारित नहीं किया जा सकता

Q33. B निम्नलिखित में से कौन से तीर्थ की यात्रा करता है?

- (a) शिरडी
- (b) वैष्णो देवी
- (c) द्वारका
- (d) तिरुपति
- (e) निर्धारित नहीं किया जा सकता

Q34. निम्नलिखित में से कौन शिरडी की यात्रा करता है?

- (a) A
- (b) B
- (c) D
- (d) E
- (e) निर्धारित नहीं किया जा सकता

Q35. निम्नलिखित में से कौन दुरंतो से यात्रा करता है?

- (a) B
- (b) द्वारका की यात्रा करने वाला व्यक्ति
- (c) D
- (d) तिरुपति की यात्रा करने वाला व्यक्ति
- (e) (b) और (c) दोनों

Directions (36-40): निम्नलिखित प्रश्नों में, दो मात्राएँ (I) और (II) दी गई हैं। आप दोनों मात्राओं के संख्यात्मक मान को हल कीजिए और इनके बीच तुलना कीजिए और उपयुक्त विकल्प को चिह्नित कीजिए।

Q36. एक बेलन का आयतन और वक्र पृष्ठीय क्षेत्रफल क्रमशः 11550सेमी^3 और 1320सेमी^2 है।

मात्रा I: बेलन की त्रिज्या।

मात्रा II: बेलन की ऊँचाई।

- (a) मात्रा I > मात्रा II
- (b) मात्रा I < मात्रा II
- (c) मात्रा I ≤ मात्रा II
- (d) मात्रा I ≥ मात्रा II
- (e) मात्रा I = मात्रा II

Q37. मात्रा I, $(x): x^2 - 15x + 56 = 0$
 मात्रा II, $(y): y^2 - 12y + 35 = 0$

- (a) मात्रा I > मात्रा II
 (b) मात्रा I < मात्रा II
 (c) मात्रा I ≤ मात्रा II
 (d) मात्रा I ≥ मात्रा II
 (e) मात्रा I = मात्रा II

Q38. मात्रा I, (शांत जल में नाव की गति): एक नाव धारा के अनुकूल 182 कि.मी. की दूरी 7 घंटों में तय कर सकती है तथा समान नाव धारा के प्रतिकूल 7 घंटों में, नाव द्वारा धारा के अनुकूल तय की गई दूरी की $15\frac{5}{13}\%$ दूरी तय कर सकती है।

मात्रा II: 16 किमी/घंटा

- (a) मात्रा I > मात्रा II
 (b) मात्रा I < मात्रा II
 (c) मात्रा I ≤ मात्रा II
 (d) मात्रा I ≥ मात्रा II
 (e) मात्रा I = मात्रा II

Q39. मात्रा I, $(x): 44x^2 - 79x + 30 = 0$
 मात्रा II, $(y): 15y^2 - 59y + 56 = 0$

- (a) मात्रा I > मात्रा II
 (b) मात्रा I < मात्रा II
 (c) मात्रा I ≤ मात्रा II
 (d) मात्रा I ≥ मात्रा II
 (e) मात्रा I = मात्रा II

Q40. मात्रा I, (दी गयी छूट की राशि और प्राप्त लाभ का अंतर): एक विक्रेता अपनी वस्तु पर क्रय मूल्य से 60% अधिक मूल्य अंकित करता है और वस्तु को बेचने पर 22% लाभ प्राप्त होता है। वस्तु का विक्रय मूल्य 1830 रु है।

मात्रा II, (?): 2100 का 16% = ?

- (a) मात्रा I > मात्रा II
 (b) मात्रा I < मात्रा II
 (c) मात्रा I ≤ मात्रा II
 (d) मात्रा I ≥ मात्रा II
 (e) मात्रा I = मात्रा II

Q41. तीन संख्या हैं। पहली और तीसरी संख्या का औसत 810 है तथा पहली और दूसरी संख्या का औसत, दूसरी और तीसरी संख्या के औसत से 380 अधिक है। तो तीनों संख्याओं का औसत ज्ञात कीजिए, यदि दूसरी संख्या, तीसरी संख्या से 220 कम है।

- (a) 640
 (b) 650
 (c) 630
 (d) 610
 (e) 660

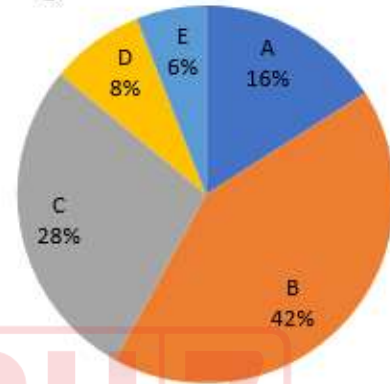
Q42. थैला-A में 5 लाल गेंद, 3 हरी गेंद और 4 नीली गेंद हैं तथा थैला-B में 7 लाल गेंद, 5 हरी गेंद और 3 नीली गेंद हैं। यदि एक थैले को यादृच्छिक रूप से चुना जाता है और इसमें से यादृच्छिक रूप से 3 गेंद निकाली जाती हैं, तो प्रत्येक रंग की 1 गेंद प्राप्त होने की प्रायिकता ज्ञात कीजिए।

- (a) 42/143
 (b) 36/143
 (c) 3/13
 (d) 46/143
 (e) उपर्युक्त में से कोई नहीं

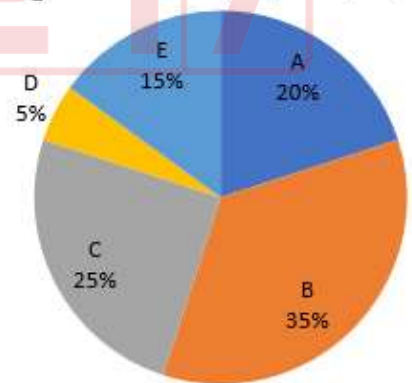
Directions (43-47): नीचे दिए गए पाई चार्ट का अध्ययन किजिये और निम्नलिखित प्रश्नों के उत्तर दीजिए।

पाई चार्ट 2017 में पांच अलग-अलग कंपनियों (अर्थात A, B, C, D और E)की बिक्री के प्रतिशत वितरण को दर्शाया गया है तथा 2017 में सभी इकाइयों को बेचकर इन कंपनियों द्वारा उत्पन्न राजस्व के प्रतिशत वितरण को दर्शाया गया है।

कुल राजस्व = 15,00,000 रु.



कुल बेची गयी इकाइयाँ = 1,20,000



Q43. कंपनी-B और कंपनी-D के प्रति इकाई विक्रय मूल्य के बीच अंतर ज्ञात कीजिए।

- (a) 2 रु.
 (b) 5 रु.
 (c) 4 रु.
 (d) 1 रु.
 (e) 3 रु.

Q44. कंपनी-A और B द्वारा बेची गई इकाइयों की औसत संख्या का, कंपनी C और D द्वारा बेची गई इकाइयों के अंतर से अनुपात ज्ञात कीजिये।

- (a) 11 : 8
(b) 5 : 3
(c) 7 : 12
(d) 4 : 7
(e) 13 : 11

Q45. कंपनी-A और E का कुल मिलाकर प्रति इकाई विक्रय मूल्य, कंपनी-C के प्रति इकाई विक्रय मूल्य से लगभग कितने प्रतिशत अधिक या कम है?

- (a) $19\frac{1}{7}\%$
(b) $4\frac{2}{7}\%$
(c) $11\frac{5}{7}\%$
(d) $7\frac{1}{7}\%$
(e) उपर्युक्त में से कोई नहीं

Q46. कंपनी-C अपनी वस्तु को विनिर्माण मूल्य से $53\frac{11}{13}\%$ अधिक अंकित करती है। यदि कंपनी-C 30% की छूट देती है, तो 2017 में कंपनी- C द्वारा प्राप्त कुल लाभ ज्ञात कीजिए।

- (a) 30000 रु.
(b) 35000 रु.
(c) 40000 रु.
(d) 20000 रु.
(e) 25000 रु.

Q47. कंपनी-D और E के कुल मिलाकर राजस्व द्वारा बना केंद्रीय कोण (डिग्री में) ज्ञात कीजिए।

- (a) 58.6
(b) 56.2
(c) 50.4
(d) 42.4
(e) 48.8

Directions (48-52): निम्नलिखित प्रश्नों में प्रश्नचिह्न (?) के स्थान पर क्या आएगा?

Q48. $234 \times \frac{?}{13} - 500$ का 30% = $810 \div 27$

- (a) 30
(b) 20
(c) 15
(d) 10
(e) 25

Q49. $\frac{60}{180} \times \sqrt[3]{729} + 160$ का 250% = ?

- (a) 407
(b) 412
(c) 399
(d) 395
(e) 403

Q50. $(5)^3 \times (24)^2 \div (45)^3 = (?)^2$

- (a) 13/9
(b) 8/9
(c) 5/7
(d) 12/7
(e) 2/7

Q51.

$\{29 + (11)^2\} \div (5)^2 + 4 \times (?)^2 = 840$ का 75% + 52

- (a) 17
(b) 13
(c) 16
(d) 15
(e) 14

Q52. $\sqrt{1521} + \sqrt{144} + \sqrt{576} + ? = 800$ का 32%

- (a) 181
(b) 211
(c) 171
(d) 201
(e) 191

Q53. पाइप- A और D प्रवेशिका पाइप हैं तथा पाइप B और C निकासी पाइप हैं। जब पाइप- B और D को एक साथ खोला जाता है, तो टंकी 40 घंटों में भर जाएगी, जबकि पाइप-A अकेले टंकी को 45 घंटों में भर सकता है। यदि पाइप B, पाइप-A की तुलना में 25% कम कार्य-कुशल है तथा पाइप-C, पाइप-D की तुलना में 20% अधिक कार्य-कुशल है, तो ज्ञात कीजिए कि पाइप -A, C और D एकसाथ खोलने पर, टंकी का 50% भाग कितने समय में भर जाएगा।

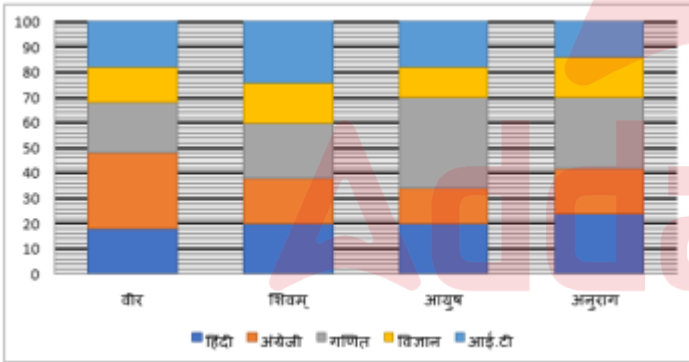
- (a) 30 घंटा
(b) 18 घंटा
(c) 42 घंटा
(d) 36 घंटा
(e) 24 घंटा

Q54. मिश्रण-A और B में पेट्रोल, डीजल और मिट्टी के तेल का अनुपात क्रमशः 2: 3: 2 और 6: 5: 4 है। जब एक पात्र में मिश्रण-A का 75% भाग और मिश्रण-B का $33\frac{1}{3}\%$ भाग एकसाथ मिलाया जाता है, तो पात्र में पेट्रोल और डीजल की मात्रा 36 लीटर और 42 लीटर है। तो, ज्ञात कीजिए कि आरम्भ में मिश्रण-A में मिट्टी की तेल मात्रा, आरम्भ में मिश्रण-B में मिट्टी के तेल की मात्रा का कितने प्रतिशत है।

- (a) 150%
 (b) $66\frac{2}{3}\%$
 (c) 100%
 (d) $33\frac{1}{3}\%$
 (e) उपर्युक्त में से कोई नहीं

Directions (55-59): नीचे दिए गए बार चार्ट का अध्ययन कीजिए और निम्नलिखित प्रश्नों के उत्तर दीजिए।

बार ग्राफ सभी पांच विषयों (हिंदी, अंग्रेजी, गणित, विज्ञान और आई.टी.) में विद्यार्थियों द्वारा प्रत्येक विषय में कुल अंकों में से, चार विद्यार्थियों (वीर, शिवम्, आयुष और अनुराग) द्वारा प्राप्त अंकों के प्रतिशत को दर्शाता है।



नोट - प्रत्येक विषय में अधिकतम अंक 100 हैं। सभी 5 विषयों में वीर, शिवम्, आयुष और अनुराग द्वारा प्राप्त कुल अंक क्रमशः 300, 400, 250 और 350 हैं।

Q55. वीर द्वारा हिंदी और अंग्रेजी में कुल मिलाकर प्राप्त अंकों, शिवम् द्वारा विज्ञान और आई.टी. में कुल मिलाकर प्राप्त अंकों से कितने प्रतिशत कम है?

- (a) 10%
 (b) 50%
 (c) 30%
 (d) 20%
 (e) 40%

Q56. सभी चार विद्यार्थियों द्वारा गणित में प्राप्त अंकों का औसत ज्ञात कीजिए।

- (a) 68
 (b) 76
 (c) 84
 (d) 72
 (e) 80

Q57. आयुष द्वारा हिंदी में और वीर द्वारा आई.टी. में कुल मिलाकर प्राप्त अंक, हिंदी में शिवम् द्वारा प्राप्त अंकों से कितने प्रतिशत अधिक हैं?

- (a) 10%
 (b) 90%
 (c) 30%
 (d) 60%
 (e) 40%

Q58. अनुराग द्वारा विज्ञान और आई.टी. में मिलाकर प्राप्त अंकों का, आयुष द्वारा विज्ञान और आई.टी. में प्राप्त अंकों के अंतर से अनुपात ज्ञात कीजिए।

- (a) 7 : 1
 (b) 3 : 1
 (c) 9 : 4
 (d) 5 : 4
 (e) 7 : 4

Q59. शिवम् द्वारा अंग्रेजी में और वीर द्वारा आई.टी. में प्राप्त अंकों का औसत, अनुराग द्वारा हिंदी और अंग्रेजी में प्राप्त अंकों के औसत से कितना अधिक या कम है?

- (a) 17.5
 (b) 16.5
 (c) 14.5
 (d) 10.5
 (e) 19.5



Directions (60-64): निम्नलिखित संख्या श्रृंखला में प्रश्नचिह्न (?) के स्थान पर क्या आएगा?

Q60. 111, 112, ?, 125, 141, 166

- (a) 115
- (b) 119
- (c) 118
- (d) 116
- (e) 117

Q61. 780, ?, 736, 681, 604, 505

- (a) 769
- (b) 771
- (c) 765
- (d) 763
- (e) 767

Q62. 2, 11, 46, 141, ?, 291

- (a) 206
- (b) 226
- (c) 246
- (d) 266
- (e) 286

Q63. 548, 273, 135, 65.5, 30.25, ?

- (a) 14.125
- (b) 12.125
- (c) 11.125
- (d) 15.125
- (e) 13.125

Q64. 6, 3, ?, 6, 24, 192

- (a) 3
- (b) 3.5
- (c) 5
- (d) 4
- (e) 4.5

Directions (65-69): नीचे दिए गए गद्यांश का अध्ययन कीजिए और निम्नलिखित प्रश्नों का उत्तर दीजिए।

2017 में, चार कंपनियां- A, B, C और D हैं। कंपनी-D में कर्मचारियों की संख्या, कंपनी-A में कर्मचारियों की संख्या का 250% है। कंपनी-B में कर्मचारियों की संख्या का, कंपनी-D में कर्मचारियों की संख्या से अनुपात 2 : 3 है तथा कंपनी B में कर्मचारियों की संख्या, कंपनी- C में कर्मचारियों की संख्या से 150% अधिक है। कंपनी A और C में कर्मचारियों की कुल संख्या 100 है।

B का औसत वेतन, A के औसत वेतन का 160% है। D का औसत वेतन, B के औसत वेतन से 25% कम है तथा C का औसत वेतन, A के सभी कर्मचारियों के औसत वेतन का दुगुना है। B द्वारा अपने सभी कर्मचारियों को दिया जाने वाला कुल वेतन 8,00,000 रु. है।

Q65. कंपनी- B और D के कर्मचारियों की औसत संख्या, कंपनी-A और C में मिलाकर कर्मचारियों की कुल संख्या से कितना अधिक या कम है?

- (a) 27
- (b) 26
- (c) 24
- (d) 28
- (e) 25

Q66. कंपनी-D द्वारा अपने सभी कर्मचारियों को दिया गया कुल वेतन, कंपनी-C द्वारा अपने सभी कर्मचारियों को दिए गए कुल वेतन से कितने प्रतिशत अधिक है?

- (a) 100%
- (b) 50%
- (c) 250%
- (d) 125%
- (e) 175%

Q67. 2018 में, कंपनी-A द्वारा अपने सभी कर्मचारियों को दिया गया कुल वेतन 525000 रु. है और कंपनी-A के औसत वेतन में पिछले वर्ष की तुलना में 40% की वृद्धि हुई है। तो, पिछले वर्ष की तुलना में 2018 में कंपनी- A के कर्मचारियों की संख्या में प्रतिशत परिवर्तन ज्ञात कीजिए।

- (a) 20%
- (b) 10%
- (c) 40%
- (d) 25%
- (e) 30%

Q68. वर्ष 2017 के अंत में, कंपनी-B के 20% कर्मचारी जिनका औसत वेतन 20000 रु. है ये कंपनी छोड़ देते हैं और कंपनी 2018 के लिए 30 नए कर्मचारियों को नियुक्त करती है। यदि नए कर्मचारियों के नियुक्त होने के बाद कंपनी-B का औसत वेतन 8000 रु. है, तो नए कर्मचारियों का औसत वेतन ज्ञात कीजिए।

- (a) 12000 रु.
- (b) 16000 रु.
- (c) 14000 रु.
- (d) 13000 रु.
- (e) 15000 रु.

Q69. वर्ष 2017 में सभी कंपनियों में कर्मचारियों की औसत संख्या ज्ञात कीजिए।

- (a) 87.5
- (b) 88
- (c) 85.5
- (d) 86
- (e) 86.5

Q70. समांतर श्रेणी का 12 वां पद, समांतर श्रेणी के 5 वें पद से 125% अधिक है। यदि समांतर श्रेणी का 5वां, 6वां, 7वां और 8 वें पद का औसत 35.5 है, तो समांतर श्रेणी का 15 वां पद ज्ञात कीजिये।

- (a) 68
- (b) 78
- (c) 88
- (d) 98
- (e) उपर्युक्त में से कोई नहीं

Directions (71-78): In the following questions, a sentence is given with a phrasal verb given in bold. Choose the most suitable alternative that correctly deciphers the meaning of the phrasal verb.

Q71. If you want to keep your job here, you must **abide by** our rules.

- (a) restrict
- (b) comply
- (c) flout
- (d) ignore
- (e) counter

Q72. Local residents have forced the local council to **back down** its plans to build a nightclub on their street.

- (a) inspect
- (b) review
- (c) mend
- (d) replicate
- (e) withdraw

Q73. I had to **cut down on** my coffee intake because I was having trouble sleeping at night.

- (a) dwindle
- (b) invigorate
- (c) ameliorate
- (d) ambivalent
- (e) fierce

Q74. She's still **bashing away at** her last chapter.

- (a) persevere
- (b) sporadic
- (c) encompass
- (d) subsume
- (e) incorporate

Q75. Statistics **bear out** the government's positions on the issue.

- (a) transforms
- (b) tolerate
- (c) discredit
- (d) ridicule
- (e) confirms

Q76. She **fawned over** the inspectors in the hope that they would give her a good grade.

- (a) overlook
- (b) flatter
- (c) comply
- (d) verify
- (e) testify

Q77. I don't know what to **make of** our new teacher.

- (a) slump
- (b) distort
- (c) perceive
- (d) evade
- (e) flaunt

Q78. The millennium **passed off** without any disasters.

- (a) collected
- (b) doubted
- (c) answered
- (d) chosen
- (e) happened

Directions (79-85): In the following questions, a sentence is divided into four parts. Choose the part of the sentence which may contain a grammatical error in it. If all the parts of the sentence are grammatically correct and contextually meaningful, choose option (E) i.e. "no error" as your answer choice.

Q79. Bihar CM Nitish Kumar on Friday (A)/ inaugurated and laid foundation stones (B)/ for a series of (C)/ important scheme of road construction. (D)/ No error. (E)

- (a) Bihar CM Nitish Kumar on Friday
- (b) inaugurated and laid foundation stones
- (c) for a series of
- (d) important scheme of road construction
- (e) No error

Q80. No sooner is one mine (A)/ exhausted when more capital (B)/ is being deployed in buying or (C)/ digging a new hole in the ground. (D) No error. (E)

- (a) No sooner is one mine
- (b) exhausted when more capital
- (c) is being deployed in buying or
- (d) digging a new hole in the ground
- (e) No error

Q81. When George had (A)/ died he and Anne(B)/ had been married (C)/ for nearly fifty years. (D) No error. (E)

- (a) When George had
- (b) died he and Anne
- (c) had been married
- (d) for nearly fifty years
- (e) No error

Q82. We were (A)/ not able to get (B)/ a hotel room because (C)/ we had not booked in advance. (D) No error. (E)

- (a) We were
- (b) not able to get
- (c) a hotel room because
- (d) we had not booked in advance
- (e) No error

Q83. I had swam (A)/ only one big race (B)/ in the past twelve months (C)/ and lacked the competitive edge. (D)/ No error. (E)

- (a) I had swam
- (b) only one big race
- (c) in the past twelve months
- (d) and lacked the competitive edge
- (e) No error

Q84. Kim has a lot of (A)/ customer service experience (B)/ because she was a waitress (C)/ prior than opening her restaurant. (D)/ No error. (E)

- (a) Kim has a lot of
- (b) customer service experience
- (c) because she was a waitress
- (d) prior than opening her restaurant
- (e) No error

Q85. After the bridge collapsed,(A)/ the police force (B)/ was equipped to deal (C)/ with the effects of the tragedy. (D)/ No error. (E)

- (a) After the bridge collapsed
- (b) the police force
- (c) was equipped to deal
- (d) with the effects of the tragedy
- (e) No error

Directions (86-92): Read the following passage and answer the following questions. Some words are highlighted to help you answer some of the questions.

Despite a long-standing global glut, Indian steel companies have been adding up production capacities. India is now the world's second largest producer of crude steel after China and the EU. Thus, it's not surprising that despite India losing a WTO dispute on steel import duties, Indian steel companies are increasingly relying on 'economic nationalism' and their 'strategic industry' tag to get the government to raise import barriers, force automakers (the top consumer) to use locally made alloy steel and ensure for them preferential access to the fast growing domestic market.

However, expensive steel hurts downstream industries that add much more value and could create many more jobs – for instance, automobile and components manufacturing or construction – that are already struggling with slowing demand and rising input costs. Higher import duties on steel add to their predicament. With steel being a common industrial input, any increase in import duties on steel causes widespread cost inefficiencies for user industries and induces import of steel-intensive goods such as earthmover

and construction equipment from countries like China. Besides, it also discourages export of steel-intensive value added products, for example engineering goods, by making them expensive – adding to India's current account woes. Thus, it's time India categorised a 'strategic industry' based on its net effect on domestic value addition as well as contribution to exports and jobs, rather than clinging to its conventional definition of strategic industry that gives too much importance to globally over-supplied basic commodities such as steel.

[A] *India's steel industry – dominated by large companies – remains the most pampered one.* It has one of the lowest effective taxations after adjusting for numerous deductions and exemptions, besides having access to an increasingly captive domestic market. It gets preferential treatment compared to non-ferrous metals such as aluminium and copper. For example, the import of flat rolled steel products attracts a basic customs duty of 12.5% compared to flat-rolled aluminium products at 7.5% and copper plates and sheets at 5%.

The government often resorts to highly prohibitive protectionist tools such as imposition of minimum import price that prompts **indigenous** steel manufacturers to increase their prices unreasonably. The last such imposition led to a surge in domestic steel prices forcing government to warn steel companies not to keep prices above Rs 40,000 a tonne.

Further, large steel manufacturers have successfully lobbied for continued imposition of a **whopping** 30% export duty on high grade (Fe content above 58%) iron ore, their key raw material. That discourages exports and keeps iron ore prices artificially low in domestic market – which benefits steel companies at the cost of iron ore miners.

Thus, Indian steel companies have access to cheaper raw material, a fast growing domestic market protected from import competition along with low effective taxation. No surprise, sale of steel assets prompted by insolvency and bankruptcy proceedings have best recovery rates and there is intense competition among major bidders including defaulting promoters to acquire distressed steel assets.

Indian policy makers tend to think that steel is a basic input for other industries including capital goods, hence it needs to be nurtured and protected. Fair enough, but what they forget is that it will impose cost on much more dynamic but dependent downstream industries such as automobile and component manufacturing, construction and infrastructure, engineering goods, electrical equipment and machineries, and in the process, adversely affect their cost competitiveness. Iron and steel accounts for roughly 15-20% of the total cost in real estate.

The country should use its limited financial tools such as subsidies and differential taxation policy to boost futuristic industries such as artificial intelligence, robotics or semiconductors as **envisaged** by Made in China 2025, and not oligopolistic raw material processors that's imposing a cost on the economy in terms of lower exports and number of jobs created. Steel companies should rather be asked to focus on moving up the value chain where quality and services and not price affect effective demand. That's the way to survive and thrive going forward. Besides, India should remove import duties on recyclable steel scrap or metal scrap in general – opposed by politically connected big guns of India Inc. Recycling is ecofriendly, saves energy and should be embraced as a policy.

Q86. What are the consequences of the availability of expensive steel in the Indian economy?

- (I) Automobile industry faces crisis due to increase in the overall production cost.
- (II) Exports of steel-intensive engineering goods are contracted.
- (III) Steel-intensive products and construction equipment are imported from China.
- (IV) In the balance of trade, current account of the country starts running in deficit.

- (a) Only (I)
- (b) Only (III)
- (c) Both (II) and (III)
- (d) Only (I) (II) and (III)
- (e) All (I) (II) (III) and (IV)

Q87. Which of the following statements support statement [A] as mentioned in the passage?

(I) Government resorts to protectionist tools on steel industry.

(II) Steel industry enjoys the lowest effective taxations.

(III) Steel industry gets preferential treatment compared to other non-ferrous metals.

(a) Only (I)

(b) Both (II) and (III)

(c) Both (I) and (II)

(d) Only (II)

(e) All (I) (II) and (III)

Q88. During insolvency and bankruptcy, why does the sale of steel assets have best recovery rates?

(I) Steel industry has a fast growing domestic market.

(II) Import duties are high on steel products

(III) Expensive raw materials for steel companies can be obtained

(IV) low effective taxation on steel products

(a) Only (I)

(b) Only (III)

(c) Both (II) and (III)

(d) Only (I) (II) and (IV)

(e) All (I) (II) (III) and (IV)

Q89. What are the suggestions made by author to maintain the balance between the policies of strategic industry and other value adding industries?

(I) financial tools should be used to develop futuristic industries such as artificial intelligence.

(II) India should remove not import duties on these goods recyclable steel scrap or metal scrap.

(III) Quality and services of steel companies should be the parameters to affect demand rather than price.

(a) Only (I)

(b) Both (II) and (III)

(c) Both (I) and (II)

(d) Only (II)

(e) All (I) (II) and (III)

Directions (90-91): Choose the word which is most similar to the meaning of the word given in bold.

Q90. Indigenous

(a) exile

(b) immigrant

(c) irrelevant

(d) eccentric

(e) native

Q91. Whopping

(a) colossal

(b) midget

(c) impish

(d) subtle

(e) trivial

Q92. Choose the word which is opposite to the word highlighted in bold.

Envisaged

(a) confronted

(b) disregarded

(c) anticipated

(d) intended

(e) envisioned

Directions (93-100): In the following passage there are blanks, each of which has been numbered and one word has been suggested alongside the blank. These numbers are printed below the passage and against each, four options are given. Find out the appropriate word which fits the blank appropriately. If the word written alongside the blank fits the passage, choose option 'e' (No replacement required) as the correct choice.

Q93. The air is **(93)**_____ **thickening**—with smoke, dust, carbon dioxide and all kinds of other harmful gases and pollutants. Sadly, the government is yet to wake up to the **(94)** _____ **sanity** of the crisis. The latest in a series of reports calling for a red-alert response is a study by Switzerland-based IQAir AirVisual and the environmental champion Greenpeace. According to the **(95)** _____ **virtual**, India is home to seven of the 10 most polluted cities in the world, going by air-quality numbers recorded last year. Gurugram

and Ghaziabad are the most polluted, while Delhi is the worst off among capital cities. Pollution usually peaks in winter, especially in the North where seasonal **(96)** _____ **products** burning by farmers unfailingly **(97)** _____ **cover** the area in a suffocating smog. After the initial noise in 2016 about getting farmers to stop this practice, nothing much has been done. In the years since, the area's air quality has continued to **(98)** _____ **decay** between "very poor" and "hazardous". Apart from due expressions of concern and some PowerPoint presentations, the issue has attracted little by way of a response. This January, the Indian government launched a "National Clean Air Programme" that proposed a "tentative national level target of 20%–30% reduction of PM2.5 and PM10 concentration by 2024". Given the fast **(99)** _____ **deteriorating** air in several Indian cities and its impact on the health of their residents, however, a far more urgent action plan needs to be mounted, an exercise that goes much beyond traffic **(100)** _____ **conveyance** such as the Delhi government's odd-even scheme of 2015.

- (a) generating
- (b) choking
- (c) suffocating
- (d) revolving
- (e) No replacement required

Q94. The air is **(93)** _____ **thickening**—with smoke, dust, carbon dioxide and all kinds of other harmful gases and pollutants. Sadly, the government is yet to wake up to the **(94)** _____ **sanity** of the crisis. The latest in a series of reports calling for a red-alert response is a study by Switzerland-based IQAir AirVisual and the environmental champion Greenpeace. According to the **(95)** _____ **virtual**, India is home to seven of the 10 most polluted cities in the world, going by air-quality numbers recorded last year. Gurugram and Ghaziabad are the most polluted, while Delhi is the worst off among capital cities. Pollution usually peaks in winter, especially in the North where seasonal **(96)** _____ **products** burning by farmers unfailingly **(97)** _____ **cover** the area in a suffocating smog. After the initial noise in 2016 about getting farmers to stop this practice, nothing

much has been done. In the years since, the area's air quality has continued to **(98)** _____ **decay** between "very poor" and "hazardous". Apart from due expressions of concern and some PowerPoint presentations, the issue has attracted little by way of a response. This January, the Indian government launched a "National Clean Air Programme" that proposed a "tentative national level target of 20%–30% reduction of PM2.5 and PM10 concentration by 2024". Given the fast **(99)** _____ **deteriorating** air in several Indian cities and its impact on the health of their residents, however, a far more urgent action plan needs to be mounted, an exercise that goes much beyond traffic **(100)** _____ **conveyance** such as the Delhi government's odd-even scheme of 2015.

- (a) hindrance
- (b) constraint
- (c) optimism
- (d) enormity
- (e) no replacement required

Q95. The air is **(93)** _____ **thickening**—with smoke, dust, carbon dioxide and all kinds of other harmful gases and pollutants. Sadly, the government is yet to wake up to the **(94)** _____ **sanity** of the crisis. The latest in a series of reports calling for a red-alert response is a study by Switzerland-based IQAir AirVisual and the environmental champion Greenpeace. According to the **(95)** _____ **virtual**, India is home to seven of the 10 most polluted cities in the world, going by air-quality numbers recorded last year. Gurugram and Ghaziabad are the most polluted, while Delhi is the worst off among capital cities. Pollution usually peaks in winter, especially in the North where seasonal **(96)** _____ **products** burning by farmers unfailingly **(97)** _____ **cover** the area in a suffocating smog. After the initial noise in 2016 about getting farmers to stop this practice, nothing much has been done. In the years since, the area's air quality has continued to **(98)** _____ **decay** between "very poor" and "hazardous". Apart from due expressions of concern and some PowerPoint presentations, the issue has attracted little by way of a response. This January, the Indian government launched a "National Clean Air Programme" that

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- (a) studying
- (b) findings
- (c) reported
- (d) allegation
- (e) No replacement required

Q96. The air is **(93)** _____ **thickening**—with smoke, dust, carbon dioxide and all kinds of other harmful gases and pollutants. Sadly, the government is yet to wake up to the **(94)** _____ **sanity** of the crisis. The latest in a series of reports calling for a red-alert response is a study by Switzerland-based IQAir AirVisual and the environmental champion Greenpeace. According to the **(95)** _____ **virtual**, India is home to seven of the 10 most polluted cities in the world, going by air-quality numbers recorded last year. Gurugram and Ghaziabad are the most polluted, while Delhi is the worst off among capital cities. Pollution usually peaks in winter, especially in the North where seasonal **(96)** _____ **products** burning by farmers unfailingly **(97)** _____ **cover** the area in a suffocating smog. After the initial noise in 2016 about getting farmers to stop this practice, nothing much has been done. In the years since, the area’s air quality has continued to **(98)** _____ **decay** between “very poor” and “hazardous”. Apart from due expressions of concern and some PowerPoint presentations, the issue has attracted little by way of a response. This January, the Indian government launched a “National Clean Air Programme” that proposed a “tentative national level target of 20%–30% reduction of PM2.5 and PM10 concentration by 2024”. Given the fast **(99)** _____ **deteriorating** air in several Indian cities and its impact on the health of their residents, however, a far more urgent action plan needs to be mounted, an exercise that goes much beyond traffic **(100)** _____ **conveyance** such as the Delhi government’s odd-even scheme of 2015.

- (a) ingredients
- (b) raw materials
- (c) stubble
- (d) resources
- (e) no replacement required

Q97. The air is **(93)** _____ **thickening**—with smoke, dust, carbon dioxide and all kinds of other harmful gases and pollutants. Sadly, the government is yet to wake up to the **(94)** _____ **sanity** of the crisis. The latest in a series of reports calling for a red-alert response is a study by Switzerland-based IQAir AirVisual and the environmental champion Greenpeace. According to the **(95)** _____ **virtual**, India is home to seven of the 10 most polluted cities in the world, going by air-quality numbers recorded last year. Gurugram and Ghaziabad are the most polluted, while Delhi is the worst off among capital cities. Pollution usually peaks in winter, especially in the North where seasonal **(96)** _____ **products** burning by farmers unfailingly **(97)** _____ **cover** the area in a suffocating smog. After the initial noise in 2016 about getting farmers to stop this practice, nothing much has been done. In the years since, the area’s air quality has continued to **(98)** _____ **decay** between “very poor” and “hazardous”. Apart from due expressions of concern and some PowerPoint presentations, the issue has attracted little by way of a response. This January, the Indian government launched a “National Clean Air Programme” that proposed a “tentative national level target of 20%–30% reduction of PM2.5 and PM10 concentration by 2024”. Given the fast **(99)** _____ **deteriorating** air in several Indian cities and its impact on the health of their residents, however, a far more urgent action plan needs to be mounted, an exercise that goes much beyond traffic **(100)** _____ **conveyance** such as the Delhi government’s odd-even scheme of 2015.

- (a) inundated
- (b) restricts
- (c) engulfs
- (d) capture
- (e) no replacement required

Q98. The air is (93) _____ **thickening**—with smoke, dust, carbon dioxide and all kinds of other harmful gases and pollutants. Sadly, the government is yet to wake up to the (94) _____ **sanity** of the crisis. The latest in a series of reports calling for a red-alert response is a study by Switzerland-based IQAir AirVisual and the environmental champion Greenpeace. According to the (95) _____ **virtual**, India is home to seven of the 10 most polluted cities in the world, going by air-quality numbers recorded last year. Gurugram and Ghaziabad are the most polluted, while Delhi is the worst off among capital cities. Pollution usually peaks in winter, especially in the North where seasonal (96) _____ **products** burning by farmers unfailingly (97) _____ **cover** the area in a suffocating smog. After the initial noise in 2016 about getting farmers to stop this practice, nothing much has been done. In the years since, the area's air quality has continued to (98) _____ **decay** between "very poor" and "hazardous". Apart from due expressions of concern and some PowerPoint presentations, the issue has attracted little by way of a response. This January, the Indian government launched a "National Clean Air Programme" that proposed a "tentative national level target of 20%–30% reduction of PM2.5 and PM10 concentration by 2024". Given the fast (99) _____ **deteriorating** air in several Indian cities and its impact on the health of their residents, however, a far more urgent action plan needs to be mounted, an exercise that goes much beyond traffic (100) _____ **conveyance** such as the Delhi government's odd-even scheme of 2015.

- (a) oscillate
- (b) deteriorate
- (c) update
- (d) degenerate
- (e) no replacement required

Q99. The air is (93) _____ **thickening**—with smoke, dust, carbon dioxide and all kinds of other harmful gases and pollutants. Sadly, the government is yet to wake up to the (94) _____ **sanity** of the crisis. The latest in a series of reports calling for a red-alert response is a study by Switzerland-based IQAir AirVisual and the

environmental champion Greenpeace. According to the (95) _____ **virtual**, India is home to seven of the 10 most polluted cities in the world, going by air-quality numbers recorded last year. Gurugram and Ghaziabad are the most polluted, while Delhi is the worst off among capital cities. Pollution usually peaks in winter, especially in the North where seasonal (96) _____ **products** burning by farmers unfailingly (97) _____ **cover** the area in a suffocating smog. After the initial noise in 2016 about getting farmers to stop this practice, nothing much has been done. In the years since, the area's air quality has continued to (98) _____ **decay** between "very poor" and "hazardous". Apart from due expressions of concern and some PowerPoint presentations, the issue has attracted little by way of a response. This January, the Indian government launched a "National Clean Air Programme" that proposed a "tentative national level target of 20%–30% reduction of PM2.5 and PM10 concentration by 2024". Given the fast (99) _____ **deteriorating** air in several Indian cities and its impact on the health of their residents, however, a far more urgent action plan needs to be mounted, an exercise that goes much beyond traffic (100) _____ **conveyance** such as the Delhi government's odd-even scheme of 2015.

- (a) prosecuting
- (b) incrementing
- (c) switching
- (d) upgrading
- (e) no replacement required

Q100. The air is (93) _____ **thickening**—with smoke, dust, carbon dioxide and all kinds of other harmful gases and pollutants. Sadly, the government is yet to wake up to the (94) _____ **sanity** of the crisis. The latest in a series of reports calling for a red-alert response is a study by Switzerland-based IQAir AirVisual and the environmental champion Greenpeace. According to the (95) _____ **virtual**, India is home to seven of the 10 most polluted cities in the world, going by air-quality numbers recorded last year. Gurugram and Ghaziabad are the most polluted, while Delhi is the worst off among capital cities. Pollution usually peaks in winter, especially in the North where

seasonal (96) _____ products burning by farmers unfailingly (97) _____ cover the area in a suffocating smog. After the initial noise in 2016 about getting farmers to stop this practice, nothing much has been done. In the years since, the area's air quality has continued to (98) _____ decay between "very poor" and "hazardous". Apart from due expressions of concern and some PowerPoint presentations, the issue has attracted little by way of a response. This January, the Indian government launched a "National Clean Air Programme" that proposed a "tentative national level target of 20%-30% reduction of PM2.5 and PM10 concentration

by 2024". Given the fast (99) _____ deteriorating air in several Indian cities and its impact on the health of their residents, however, a far more urgent action plan needs to be mounted, an exercise that goes much beyond traffic (100) _____ conveyance such as the Delhi government's odd-even scheme of 2015.

- (a) transport
- (b) gimmicks
- (c) authorization
- (d) supplant
- (e) no replacement required

Solutions

S1. Ans.(d)

Sol. D belongs to UK and likes White colour. A plays Swimming. P plays Chess and likes Brown colour. The one who plays Chess belongs to India. The one who plays Swimming belongs to UK. From these conditions we have the following arrangement-

Player	Sport	Colour	Country
A	Swimming		UK
D		White	UK
N			
P	Chess	Brown	India
S			
V			

P does not belong to the same country as N. So N belongs to USA. The one who plays Squash belongs to USA. S does not play Squash. So V or N plays Squash and belongs to USA. From these conditions we have two possible cases-

	Case- 1			Case- 2		
Player	Sport	Colour	Country	Sport	Colour	Country
A	Swimming		UK	Swimming		UK
D		White	UK		White	UK
N	Squash		USA			USA
P	Chess	Brown	India	Chess	Brown	India
S						
V				Squash		USA

S belongs to same country as the one who likes Black colour. The one who plays Snooker belongs to India. By these conditions case- 2 is cancelled. So N likes black colour and S belongs to USA. D does not play Bowling. So S plays Bowling. A likes neither Pink nor Lime colour. V does not like Lime colour. So S likes Lime colour. So final arrangement will be-

Player	Sport	Colour	Country
A	Swimming	Purple	UK
D	Boxing	White	UK
N	Squash	Black	USA
P	Chess	Brown	India
S	Bowling	Lime	USA
V	Snooker	Pink	India

S2. Ans.(c)

Sol. D belongs to UK and likes White colour. A plays Swimming. P plays Chess and likes Brown colour. The one who plays Chess belongs to India. The one who plays Swimming belongs to UK. From these conditions we have the following arrangement-

Player	Sport	Colour	Country
A	Swimming		UK
D		White	UK
N			
P	Chess	Brown	India
S			
V			

P does not belong to the same country as N. So N belongs to USA. The one who plays Squash belongs to USA. S does not play Squash. So V or N plays Squash and belongs to USA. From these conditions we have two possible cases-

	Case- 1			Case- 2		
Player	Sport	Colour	Country	Sport	Colour	Country
A	Swimming		UK	Swimming		UK
D		White	UK		White	UK
N	Squash		USA			USA
P	Chess	Brown	India	Chess	Brown	India
S						
V				Squash		USA

S belongs to same country as the one who likes Black colour. The one who plays Snooker belongs to India. By these conditions case- 2 is cancelled. So N likes black colour and S belongs to USA. D does not play Bowling. So S plays Bowling. A likes neither Pink nor Lime colour. V does not like Lime colour. So S likes Lime colour. So final arrangement will be-

Player	Sport	Colour	Country
A	Swimming	Purple	UK
D	Boxing	White	UK
N	Squash	Black	USA
P	Chess	Brown	India
S	Bowling	Lime	USA
V	Snooker	Pink	India

S3. Ans.(a)

Sol. D belongs to UK and likes White colour. A plays Swimming. P plays Chess and likes Brown colour. The one who plays Chess belongs to India. The one who plays Swimming belongs to UK. From these conditions we have the following arrangement-

Player	Sport	Colour	Country
A	Swimming		UK
D		White	UK
N			
P	Chess	Brown	India
S			
V			

P does not belong to the same country as N. So N belongs to USA. The one who plays Squash belongs to USA. S does not play Squash. So V or N plays Squash and belongs to USA. From these conditions we have two possible cases-

	Case- 1			Case- 2		
Player	Sport	Colour	Country	Sport	Colour	Country
A	Swimming		UK	Swimming		UK
D		White	UK		White	UK
N	Squash		USA			USA
P	Chess	Brown	India	Chess	Brown	India
S						
V				Squash		USA

S belongs to same country as the one who likes Black colour. The one who plays Snooker belongs to India. By these conditions case- 2 is cancelled. So N likes black colour and S belongs to USA. D does not play Bowling. So S plays Bowling. A likes neither Pink nor Lime colour. V does not like Lime colour. So S likes Lime colour. So final arrangement will be-

Player	Sport	Colour	Country
A	Swimming	Purple	UK
D	Boxing	White	UK
N	Squash	Black	USA
P	Chess	Brown	India
S	Bowling	Lime	USA
V	Snooker	Pink	India

S4. Ans.(b)

Sol. D belongs to UK and likes White colour. A plays Swimming. P plays Chess and likes Brown colour. The one who plays Chess belongs to India. The one who plays Swimming belongs to UK. From these conditions we have the following arrangement-

Player	Sport	Colour	Country
A	Swimming		UK
D		White	UK
N			
P	Chess	Brown	India
S			
V			

P does not belong to the same country as N. So N belongs to USA. The one who plays Squash belongs to USA. S does not play Squash. So V or N plays Squash and belongs to USA. From these conditions we have two possible cases-

	Case- 1			Case- 2		
Player	Sport	Colour	Country	Sport	Colour	Country
A	Swimming		UK	Swimming		UK
D		White	UK		White	UK
N	Squash		USA			USA
P	Chess	Brown	India	Chess	Brown	India
S						
V				Squash		USA

S belongs to same country as the one who likes Black colour. The one who plays Snooker belongs to India. By these conditions case- 2 is cancelled. So N likes black colour and S belongs to USA. D does not play Bowling. So S plays Bowling. A likes neither Pink nor Lime colour. V does not like Lime colour. So S likes Lime colour. So final arrangement will be-

Player	Sport	Colour	Country
A	Swimming	Purple	UK
D	Boxing	White	UK
N	Squash	Black	USA
P	Chess	Brown	India
S	Bowling	Lime	USA
V	Snooker	Pink	India

S5. Ans.(b)

Sol. D belongs to UK and likes White colour. A plays Swimming. P plays Chess and likes Brown colour. The one who plays Chess belongs to India. The one who plays Swimming belongs to UK. From these conditions we have the following arrangement-

Player	Sport	Colour	Country
A	Swimming		UK
D		White	UK
N			
P	Chess	Brown	India
S			
V			

P does not belong to the same country as N. So N belongs to USA. The one who plays Squash belongs to USA. S does not play Squash. So V or N plays Squash and belongs to USA. From these conditions we have two possible cases-

	Case- 1			Case- 2		
Player	Sport	Colour	Country	Sport	Colour	Country
A	Swimming		UK	Swimming		UK
D		White	UK		White	UK
N	Squash		USA			USA
P	Chess	Brown	India	Chess	Brown	India
S						
V				Squash		USA

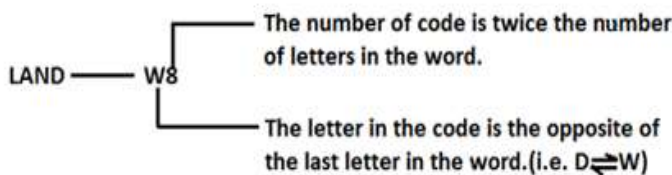
S belongs to same country as the one who likes Black colour. The one who plays Snooker belongs to India. By these conditions case- 2 is cancelled. So N likes black colour and S belongs to USA. D does not play Bowling. So S plays Bowling. A likes neither Pink nor Lime colour. V does not like Lime colour. So S likes Lime colour. So final arrangement will be-

Player	Sport	Colour	Country
A	Swimming	Purple	UK
D	Boxing	White	UK
N	Squash	Black	USA
P	Chess	Brown	India
S	Bowling	Lime	USA
V	Snooker	Pink	India

S6. Ans.(b)

Sol.

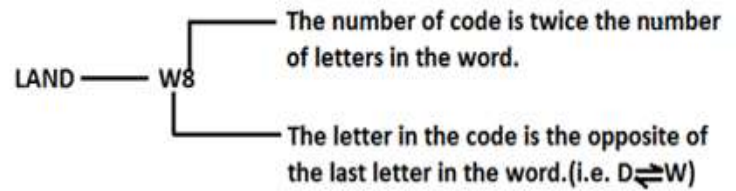
Logic:



S7. Ans.(d)

Sol.

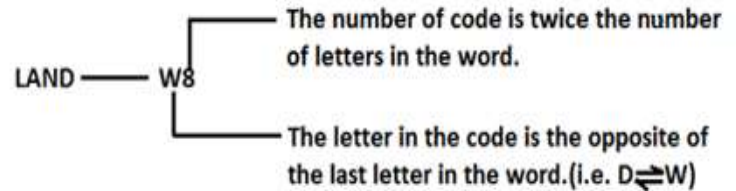
Logic:



S8. Ans.(b)

Sol.

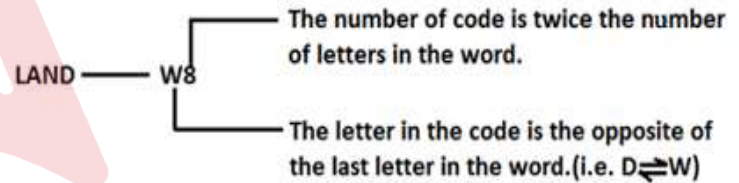
Logic:



S9. Ans.(a)

Sol.

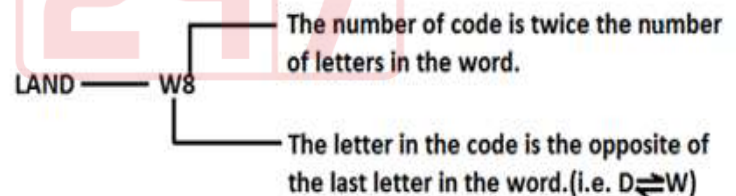
Logic:



S10. Ans.(c)

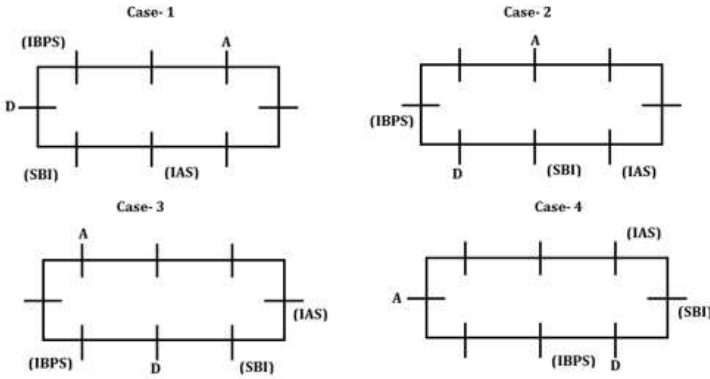
Sol.

Logic:

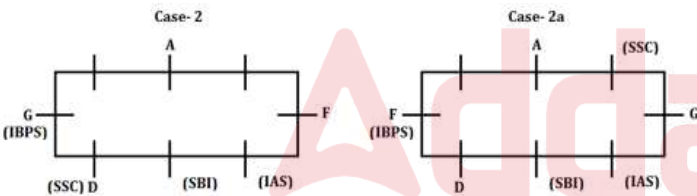


S11. Ans.(b)

Sol. The one who prepares for IAS sits second to right of D. The one who prepares for IBPS sits third to the left of the one who prepares for IAS. The one who prepares for IBPS sits second to the left of the one who prepares for SBI and second to the right of A. From these conditions we have four possible cases-



The ones who prepare for IBPS and SBI are not sitting on the same side of the table. By this condition case- 3 is cancelled. F and G are sitting opposite to each other. G sits on the shorter side and immediate left of the one who prepares for SSC. By these conditions case- 1 and case- 4 are cancelled. Also one more case added in case- 2. So new arrangement will be-

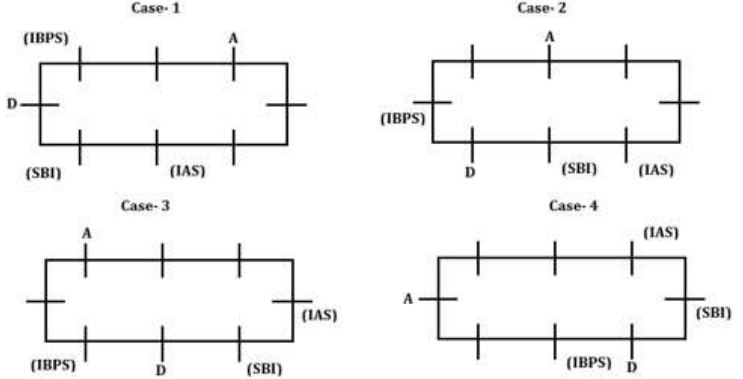


A does not sit immediate to the one who prepares for SSC. By this condition case- 2a is cancelled. The one who prepares for SSC sits diagonally opposite to C. The one who prepares for RBI sits third to left of E. B sits opposite to the one who prepares for AFCAT. C does not prepare for AFCAT. The one who prepares for IAS does not sit diagonally opposite to the one who prepares for CDS. SO final arrangement will be-

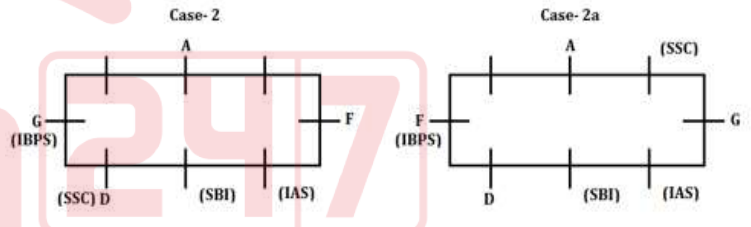


S12. Ans.(e)

Sol. The one who prepares for IAS sits second to right of D. The one who prepares for IBPS sits third to the left of the one who prepares for IAS. The one who prepares for IBPS sits second to the left of the one who prepares for SBI and second to the right of A. From these conditions we have four possible cases-



The ones who prepare for IBPS and SBI are not sitting on the same side of the table. By this condition case- 3 is cancelled. F and G are sitting opposite to each other. G sits on the shorter side and immediate left of the one who prepares for SSC. By these conditions case- 1 and case- 4 are cancelled. Also one more case added in case- 2. So new arrangement will be-

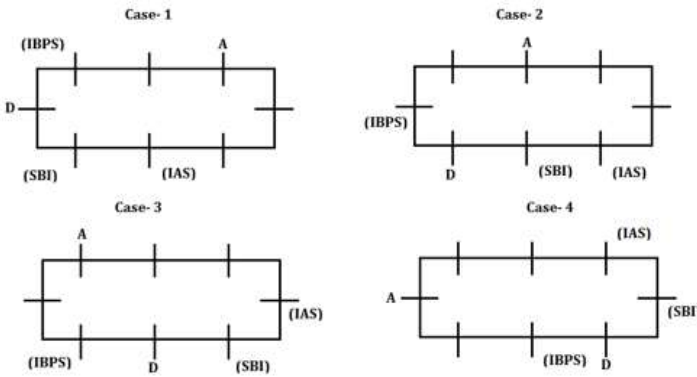


A does not sit immediate to the one who prepares for SSC. By this condition case- 2a is cancelled. The one who prepares for SSC sits diagonally opposite to C. The one who prepares for RBI sits third to left of E. B sits opposite to the one who prepares for AFCAT. C does not prepare for AFCAT. The one who prepares for IAS does not sit diagonally opposite to the one who prepares for CDS. SO final arrangement will be-

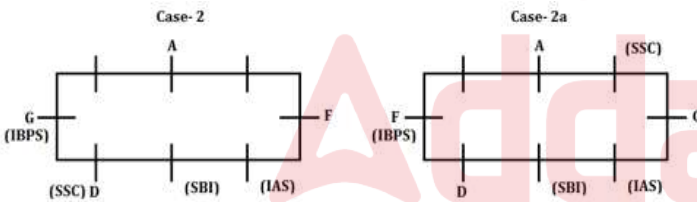


S13. Ans.(d)

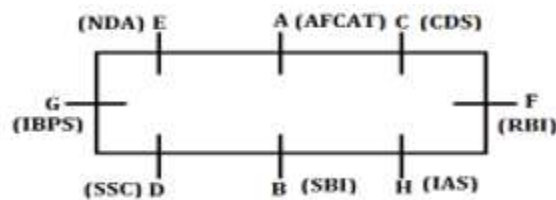
Sol. The one who prepares for IAS sits second to right of D. The one who prepares for IBPS sits third to the left of the one who prepares for IAS. The one who prepares for IBPS sits second to the left of the one who prepares for SBI and second to the right of A. From these conditions we have four possible cases-



The ones who prepare for IBPS and SBI are not sitting on the same side of the table. By this condition case- 3 is cancelled. F and G are sitting opposite to each other. G sits on the shorter side and immediate left of the one who prepares for SSC. By these conditions case- 1 and case- 4 are cancelled. Also one more case added in case- 2. So new arrangement will be-

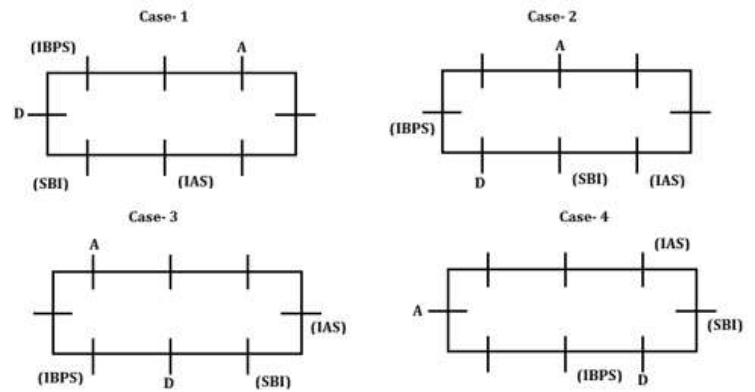


A does not sit immediate to the one who prepares for SSC. By this condition case- 2a is cancelled. The one who prepares for SSC sits diagonally opposite to C. The one who prepares for RBI sits third to left of E. B sits opposite to the one who prepares for AFCAT. C does not prepare for AFCAT. The one who prepares for IAS does not sit diagonally opposite to the one who prepares for CDS. SO final arrangement will be-

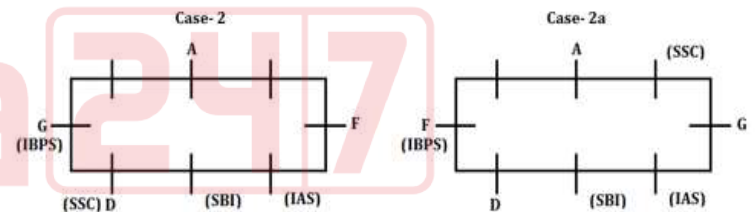


S14. Ans.(e)

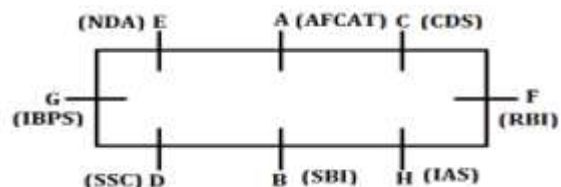
Sol. The one who prepares for IAS sits second to right of D. The one who prepares for IBPS sits third to the left of the one who prepares for IAS. The one who prepares for IBPS sits second to the left of the one who prepares for SBI and second to the right of A. From these conditions we have four possible cases-



The ones who prepare for IBPS and SBI are not sitting on the same side of the table. By this condition case- 3 is cancelled. F and G are sitting opposite to each other. G sits on the shorter side and immediate left of the one who prepares for SSC. By these conditions case- 1 and case- 4 are cancelled. Also one more case added in case- 2. So new arrangement will be-

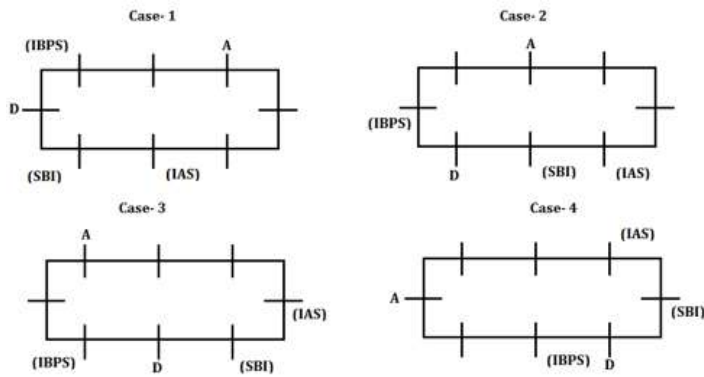


A does not sit immediate to the one who prepares for SSC. By this condition case- 2a is cancelled. The one who prepares for SSC sits diagonally opposite to C. The one who prepares for RBI sits third to left of E. B sits opposite to the one who prepares for AFCAT. C does not prepare for AFCAT. The one who prepares for IAS does not sit diagonally opposite to the one who prepares for CDS. SO final arrangement will be-

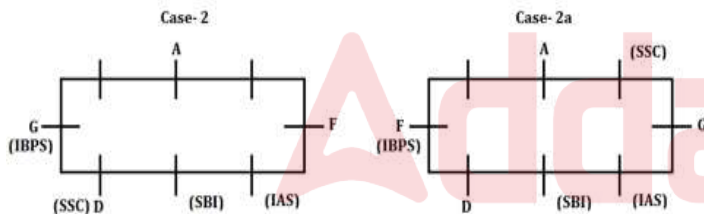


S15. Ans.(b)

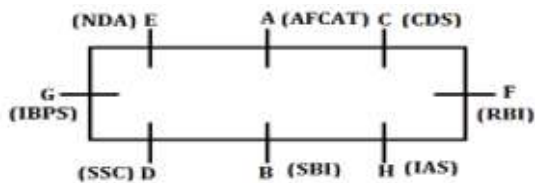
Sol. The one who prepares for IAS sits second to right of D. The one who prepares for IBPS sits third to the left of the one who prepares for IAS. The one who prepares for IBPS sits second to the left of the one who prepares for SBI and second to the right of A. From these conditions we have four possible cases-



The ones who prepare for IBPS and SBI are not sitting on the same side of the table. By this condition case- 3 is cancelled. F and G are sitting opposite to each other. G sits on the shorter side and immediate left of the one who prepares for SSC. By these conditions case- 1 and case- 4 are cancelled. Also one more case added in case- 2. So new arrangement will be-



A does not sit immediate to the one who prepares for SSC. By this condition case- 2a is cancelled. The one who prepares for SSC sits diagonally opposite to C. The one who prepares for RBI sits third to left of E. B sits opposite to the one who prepares for AFCAT. C does not prepare for AFCAT. The one who prepares for IAS does not sit diagonally opposite to the one who prepares for CDS. SO final arrangement will be-



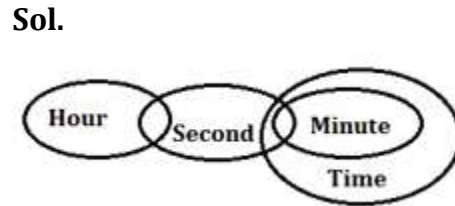
S16. Ans.(c)

Sol. 546(368) 429(647) 327(145) 273(451) 094(276)

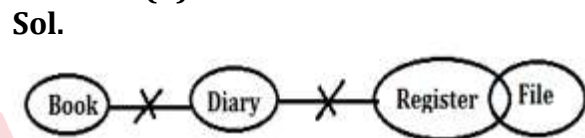
S17. Ans.(a)

Sol. 863 541 764 762 541 >> 863 - 541 = 322

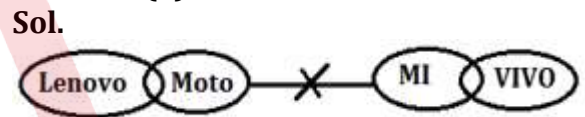
S18. Ans.(c)



S19. Ans.(d)



S20. Ans.(e)



S21. Ans.(c)

Sol. F lives east to A. As many floors are above floor of A as below of F. There is a gap of one floor between floor of F and H, but flat number of both is different. There will be two possibilities either C lives on floor 1 or floor 5.

I lives on even numbered floor and even numbered flat. There is a gap of two floor between floors of I and C, who lives in flat-1.

Case-I		
	Flat-1	Flat-2
Floor 5	H	
Floor-4		I
Floor-3	A	F
Floor-2		
Floor-1	C	

Case-II		
	Flat-1	Flat-2
Floor 5	C	
Floor-4		
Floor-3	A	F
Floor-2		I
Floor-1	H	

B lives above I in odd numbered floor. There is a gap of two floors between floors of B and J, who lives in odd numbered flat. D lives above G and both live in same numbered flat.

Case-I		
	Flat-1	Flat-2
Floor 5	H	B
Floor-4		I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

Case-II		
	Flat-1	Flat-2
Floor 5	C	B
Floor-4		D
Floor-3	A	F
Floor-2	J	I
Floor-1	H	G

Now, E does not live on same floor of D. By this condition Case-2 will be eliminated. Final arrangement will be----

Now, E does not live on same floor of D. By this condition Case-2 will be eliminated. Final arrangement will be----

	Flat-1	Flat-2
Floor 5	H	B
Floor-4	E	I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

	Flat-1	Flat-2
Floor 5	H	B
Floor-4	E	I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

S22.Ans.(a)

Sol. F lives east to A. As many floors are above floor of A as below of F. There is a gap of one floor between floor of F and H, but flat number of both is different. There will be two possibilities either C lives on floor 1 or floor 5.

I lives on even numbered floor and even numbered flat. There is a gap of two floor between floors of I and C, who lives in flat-1.

S23.Ans.(e)

Sol. F lives east to A. As many floors are above floor of A as below of F. There is a gap of one floor between floor of F and H, but flat number of both is different. There will be two possibilities either C lives on floor 1 or floor 5.

I lives on even numbered floor and even numbered flat. There is a gap of two floor between floors of I and C, who lives in flat-1.

Case-I		
	Flat-1	Flat-2
Floor 5	H	
Floor-4		I
Floor-3	A	F
Floor-2		
Floor-1	C	

Case-II		
	Flat-1	Flat-2
Floor 5	C	
Floor-4		
Floor-3	A	F
Floor-2		I
Floor-1	H	

Case-I		
	Flat-1	Flat-2
Floor 5	H	
Floor-4		I
Floor-3	A	F
Floor-2		
Floor-1	C	

Case-II		
	Flat-1	Flat-2
Floor 5	C	
Floor-4		
Floor-3	A	F
Floor-2		I
Floor-1	H	

B lives above I in odd numbered floor. There is a gap of two floors between floors of B and J, who lives in odd numbered flat. D lives above G and both live in same numbered flat.

B lives above I in odd numbered floor. There is a gap of two floors between floors of B and J, who lives in odd numbered flat. D lives above G and both live in same numbered flat.

Case-I		
	Flat-1	Flat-2
Floor 5	H	B
Floor-4		I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

Case-II		
	Flat-1	Flat-2
Floor 5	C	B
Floor-4		D
Floor-3	A	F
Floor-2	J	I
Floor-1	H	G

Case-I		
	Flat-1	Flat-2
Floor 5	H	B
Floor-4		I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

Case-II		
	Flat-1	Flat-2
Floor 5	C	B
Floor-4		D
Floor-3	A	F
Floor-2	J	I
Floor-1	H	G

Now, E does not live on same floor of D. By this condition Case-2 will be eliminated. Final arrangement will be----

	Flat-1	Flat-2
Floor 5	H	B
Floor-4	E	I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

S24.Ans.(d)

Sol. F lives east to A. As many floors are above floor of A as below of F. There is a gap of one floor between floor of F and H, but flat number of both is different. There will be two possibilities either C lives on floor 1 or floor 5.

I lives on even numbered floor and even numbered flat. There is a gap of two floor between floors of I and C, who lives in flat-1.

Case-I		
	Flat-1	Flat-2
Floor 5	H	
Floor-4		I
Floor-3	A	F
Floor-2		
Floor-1	C	

Case-II		
	Flat-1	Flat-2
Floor 5	C	
Floor-4		
Floor-3	A	F
Floor-2		I
Floor-1	H	

B lives above I in odd numbered floor. There is a gap of two floors between floors of B and J, who lives in odd numbered flat. D lives above G and both live in same numbered flat.

Case-I		
	Flat-1	Flat-2
Floor 5	H	B
Floor-4		I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

Case-II		
	Flat-1	Flat-2
Floor 5	C	B
Floor-4		D
Floor-3	A	F
Floor-2	J	I
Floor-1	H	G

Now, E does not live on same floor of D. By this condition Case-2 will be eliminated. Final arrangement will be----

	Flat-1	Flat-2
Floor 5	H	B
Floor-4	E	I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

S25.Ans.(b)

Sol. F lives east to A. As many floors are above floor of A as below of F. There is a gap of one floor between floor of F and H, but flat number of both is different. There will be two possibilities either C lives on floor 1 or floor 5.

I lives on even numbered floor and even numbered flat. There is a gap of two floor between floors of I and C, who lives in flat-1.

Case-I		
	Flat-1	Flat-2
Floor 5	H	
Floor-4		I
Floor-3	A	F
Floor-2		
Floor-1	C	

Case-II		
	Flat-1	Flat-2
Floor 5	C	
Floor-4		
Floor-3	A	F
Floor-2		I
Floor-1	H	

B lives above I in odd numbered floor. There is a gap of two floors between floors of B and J, who lives in odd numbered flat. D lives above G and both live in same numbered flat.

Case-I		
	Flat-1	Flat-2
Floor 5	H	B
Floor-4		I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

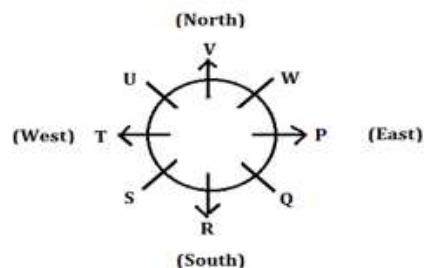
Case-II		
	Flat-1	Flat-2
Floor 5	C	B
Floor-4		D
Floor-3	A	F
Floor-2	J	I
Floor-1	H	G

Now, E does not live on same floor of D. By this condition Case-2 will be eliminated. Final arrangement will be----

	Flat-1	Flat-2
Floor 5	H	B
Floor-4	E	I
Floor-3	A	F
Floor-2	J	D
Floor-1	C	G

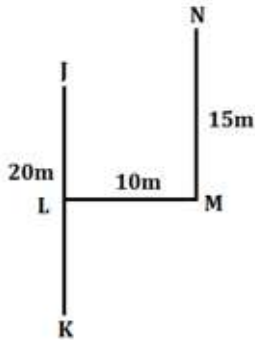
S26. Ans.(b)

Sol.



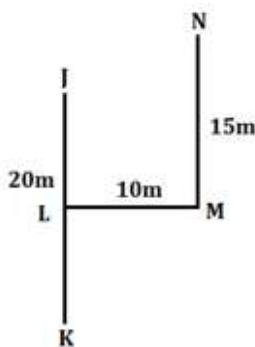
S27. Ans.(a)

Sol.



S28. Ans.(a)

Sol.



S29. Ans.(b)

Sol.

$$B > D > F(48) > C > E(37) > A$$

S30. Ans.(e)

Sol.

$$B > D > F(48) > C > E(37) > A$$

S31. Ans. (d)

Sol. C goes to Rameswaram. A does not travel to Tirupati or Vaishno Devi. B does not travel from Duranto or Gareebrath. A travel from Punjab mail. E neither goes to Tirupati nor he travel from Duranto. C does not travel from Gareebrath.

Person	Pilgrimage	Train
A	Tirupati, Vaishno Devi	Punjab mail
B		Duranto, Gareebrath
C	Rameswaram	Gareebrath
D		
E	Tirupati	Duranto

The one who goes to Tirupati does not travel from Shtabdi. The one who goes to Dwarka travels from Duranto.

Person	Pilgrimage	Train
A	Shirdi	Punjab mail
B	Tirupati	Rajdhani
C	Rameswaram	Shtabdi
D	Dwarka	Duranto
E	Vaishno Devi	Gareebrath

S32. Ans.(a)

Sol. C goes to Rameswaram. A does not travel to Tirupati or Vaishno Devi. B does not travel from Duranto or Gareebrath. A travel from Punjab mail. E neither goes to Tirupati nor he travel from Duranto. C does not travel from Gareebrath.

Person	Pilgrimage	Train
A	Tirupati, Vaishno Devi	Punjab mail
B		Duranto, Gareebrath
C	Rameswaram	Gareebrath
D		
E	Tirupati	Duranto

The one who goes to Tirupati does not travel from Shtabdi. The one who goes to Dwarka travels from Duranto.

Person	Pilgrimage	Train
A	Shirdi	Punjab mail
B	Tirupati	Rajdhani
C	Rameswaram	Shtabdi
D	Dwarka	Duranto
E	Vaishno Devi	Gareebrath

S33. Ans.(d)

Sol. C goes to Rameswaram. A does not travel to Tirupati or Vaishno Devi. B does not travel from Duranto or Gareebrath. A travel from Punjab mail. E neither goes to Tirupati nor he travel from Duranto. C does not travel from Gareebrath.

Person	Pilgrimage	Train
A	Tirupati, Vaishno Devi	Punjab mail
B		Duranto, Gareebrath
C	Rameswaram	Gareebrath
D		
E	Tirupati	Duranto

The one who goes to Tirupati does not travel from Shtabdi. The one who goes to Dwarka travels from Duranto.

Person	Pilgrimage	Train
A	Shirdi	Punjab mail
B	Tirupati	Rajdhani
C	Rameswaram	Shtabdi
D	Dwarka	Duranto
E	Vaishno Devi	Gareebrath

S34. Ans.(a)

Sol. C goes to Rameswaram. A does not travel to Tirupati or Vaishno Devi. B does not travel from Duranto or Gareebrath. A travel from Punjab mail. E neither goes to Tirupati nor he travel from Duranto. C does not travel from Gareebrath.

Person	Pilgrimage	Train
A	Tirupati, Vaishno Devi	Punjab mail
B		Duranto, Gareebrath
C	Rameswaram	Gareebrath
D		
E	Tirupati	Duranto

The one who goes to Tirupati does not travel from Shtabdi. The one who goes to Dwarka travels from Duranto.

Person	Pilgrimage	Train
A	Shirdi	Punjab mail
B	Tirupati	Rajdhani
C	Rameswaram	Shtabdi
D	Dwarka	Duranto
E	Vaishno Devi	Gareebrath

S35. Ans.(e)

Sol. C goes to Rameswaram. A does not travel to Tirupati or Vaishno Devi. B does not travel from Duranto or Gareebrath. A travel from Punjab mail. E neither goes to Tirupati nor he travel from Duranto. C does not travel from Gareebrath.

Person	Pilgrimage	Train
A	Tirupati, Vaishno Devi	Punjab mail
B		Duranto, Gareebrath
C	Rameswaram	Gareebrath
D		
E	Tirupati	Duranto

The one who goes to Tirupati does not travel from Shtabdi. The one who goes to Dwarka travels from Duranto.

Person	Pilgrimage	Train
A	Shirdi	Punjab mail
B	Tirupati	Rajdhani
C	Rameswaram	Shtabdi
D	Dwarka	Duranto
E	Vaishno Devi	Gareebrath

S36. Ans.(a)

Sol.

Let radius & height of cylinder be 'r cm' & 'h cm' respectively.

Atq,

$$\text{Volume of cylinder} = 11550 \text{ cm}^3$$

$$\pi r^2 h = 11550 \dots (i)$$

$$\text{And curved surface area of cylinder} = 1320 \text{ cm}^2$$

$$2\pi rh = 1320 \dots (ii)$$

On solving (i) and (ii), we get:

$$r = 17.5 \text{ cm, } h = 12 \text{ cm}$$

So, **Quantity I > Quantity II.**

S37. Ans.(d)

Sol.

Quantity I:

$$x^2 - 15x + 56 = 0$$

$$x^2 - 8x - 7x + 56 = 0$$

$$x(x - 8) - 7(x - 8) = 0$$

$$(x - 8)(x - 7) = 0$$

$$x = 8, 7$$

Quantity II:

$$y^2 - 12y + 35 = 0$$

$$y^2 - 7y - 5y + 35 = 0$$

$$y(y - 7) - 5(y - 7) = 0$$

$$(y - 7)(y - 5) = 0$$

$$y = 5, 7$$

So, **Quantity I \geq Quantity II.**

S38. Ans.(b)**Sol.****Quantity I:**

Let speed of boat in still water be 'x km/hr'
and speed of stream be 'y km/hr.'

Atq,
 $\frac{182}{7} = x + y$

$x + y = 26$... (i)

And $\frac{(182 \times \frac{200}{18} \times \frac{1}{100})}{7} = x - y$

$x - y = 4$... (ii)

On solving (i) and (ii), we get:

$x = 15$ km/hr.

So, **Quantity II > Quantity I.**

S39. Ans.(b)**Sol.****Quantity I:**

$44x^2 - 79x + 30 = 0$

$44x^2 - 55x - 24x + 30 = 0$

$11x(4x - 5) - 6(4x - 5) = 0$

$(4x - 5)(11x - 6) = 0$

$x = \frac{5}{4}, \frac{6}{11}$

Quantity II:

$15y^2 - 59y + 56 = 0$

$15y^2 - 35y - 24y + 56 = 0$

$5y(3y - 7) - 8(3y - 7) = 0$

$(3y - 7)(5y - 8) = 0$

$y = \frac{7}{3}, \frac{8}{5}$

So, **Quantity II > Quantity I.**

S40. Ans.(b)**Sol.****Quantity I:**

Let cost price of the article be Rs. 100x.

So, marked price of the article = $100x \times \frac{160}{100} = \text{Rs. } 160x$

And selling price of the article = Rs. 1830

$100x \times \frac{122}{100} = 1830$

$x = \frac{1830}{122}$

$x = 15$

So, CP of article = $100x = \text{Rs. } 1500$

And MP of article = $160x = \text{Rs. } 2400$

Required difference = $(2400 - 1830) - (1830 - 1500)$

$= 570 - 330 = \text{Rs. } 240$

Quantity II:

$\frac{16}{100} \times 2100 = ?$

$? = 336$

So, **Quantity II > Quantity I.**

S41. Ans.(d)**Sol.**

Let first number, second number and third number be 'a', 'b' and 'c' respectively.

Atq,
 $\frac{a+c}{2} = 810$

$a + c = 1620$... (i)

Now, $\frac{a+b}{2} - \frac{b+c}{2} = 380$

$a - c = 760$... (ii)

On solving (i) & (ii), we get:

$a = 1190, c = 430$

Now,

$b = c - 220$

$b = 210$

Required average = $\frac{1190 + 210 + 430}{3} = 610$

S42. Ans.(b)**Sol.**

Probability of choosing a bag = $\frac{1}{2}$

Probability of choosing 1 ball of each color from Bag - A

$= \left(\frac{{}^5C_1 \times {}^3C_1 \times {}^4C_1}{{}^{12}C_3} \right) = \frac{5 \times 3 \times 4}{2 \times 11 \times 10} = \frac{3}{11}$

Probability of choosing 1 ball of each color from Bag - B

$= \left(\frac{{}^7C_1 \times {}^5C_1 \times {}^3C_1}{{}^{15}C_3} \right) = \frac{7 \times 5 \times 3}{5 \times 7 \times 13} = \frac{3}{13}$

Required Probability = $\frac{1}{2} \left(\frac{3}{11} + \frac{3}{13} \right) = \frac{36}{143}$

S43. Ans.(b)**Sol.**

Per unit selling price of company - B

$= \frac{1500000 \times \frac{42}{100}}{120000 \times \frac{35}{100}} = \frac{150 \times 42}{12 \times 35} = \text{Rs. } 15$

Per unit selling price of company - D

$= \frac{1500000 \times \frac{8}{100}}{120000 \times \frac{5}{100}} = \frac{150 \times 8}{12 \times 5} = \text{Rs. } 20$

Required difference = $20 - 15 = \text{Rs. } 5$

S44. Ans.(a)**Sol.**

Average number of units sold by company

- A and B = $\frac{120000 \times \frac{55}{100}}{2} = 600 \times 55 = 33000$

Difference between units sold by company

- C & D = $120000 \times \frac{(25-5)}{100} = 24000$

Required ratio = $\frac{33000}{24000} = \frac{11}{8} = 11 : 8$

S45. Ans.(d)

Sol.

Per unit selling price of company - A

$$= \frac{1500000 \times \frac{16}{100}}{120000 \times \frac{20}{100}} = \frac{15 \times 16}{12 \times 2} = \text{Rs. } 10$$

Per unit selling price of company - E

$$= \frac{1500000 \times \frac{6}{100}}{120000 \times \frac{15}{100}} = \frac{150 \times 6}{12 \times 15} = \text{Rs. } 5$$

Per unit selling price of company - C

$$= \frac{1500000 \times \frac{28}{100}}{120000 \times \frac{25}{100}} = \frac{150 \times 28}{12 \times 25} = \text{Rs. } 14$$

$$\text{Required \%} = \frac{(10 + 5) - 14}{14} \times 100 = \frac{50}{7} \% = 7\frac{1}{7} \%$$

S46. Ans.(a)

Sol.

Let manufacturing price of 1 unit of company - C be Rs x.

So, marked price of 1 unit of company

$$- C = x \times \frac{2000}{1300} = \text{Rs. } \frac{20x}{13}$$

And selling price of 1 unit of company

$$- C = \frac{20x}{13} \times \frac{70}{100} = \frac{14x}{13} \text{ Rs.}$$

Atq,

Per unit selling price of Company

$$- C = \frac{1500000 \times \frac{28}{100}}{120000 \times \frac{25}{100}}$$

$$\frac{14x}{13} = \frac{150 \times 28}{12 \times 25}$$

$$x = 13$$

Required amount

$$= 120000 \times \frac{25}{100} \times \left(\frac{14 \times 13}{13} - 13 \right) = \text{Rs. } 30000$$

S47. Ans.(c)

Sol.

$$\text{Required angle} = \frac{(8 + 6)}{100} \times 360 = \frac{14 \times 36}{10} = \frac{252}{5} = 50.4^\circ$$

S48. Ans.(d)

Sol.

$$234 \times \frac{?}{13} - \frac{30}{100} \times 500 = 810 \times \frac{1}{27}$$

$$18 \times ? - 150 = 30$$

$$? = \frac{180}{18}$$

$$? = 10$$

S49. Ans.(e)

Sol.

$$\frac{60}{180} \times 9 + \frac{250}{100} \times 160 = ?$$

$$3 + 400 = ?$$

$$? = 403$$

S50. Ans.(b)

Sol.

$$5 \times 5 \times 5 \times 24 \times 24 \times \frac{1}{45} \times \frac{1}{45} \times \frac{1}{45} = (?)^2$$

$$(?)^2 = \frac{64}{81}$$

$$(?) = \frac{8}{9}$$

S51. Ans.(b)

Sol.

$$(29 + 121) \times \frac{1}{25} + 4 \times (?)^2 = \frac{75}{100} \times 840 + 52$$

$$4 \times (?)^2 = 630 - 6 + 52$$

$$(?)^2 = \frac{676}{4}$$

$$(?) = \sqrt{169}$$

$$(?) = 13$$

S52. Ans.(a)

Sol.

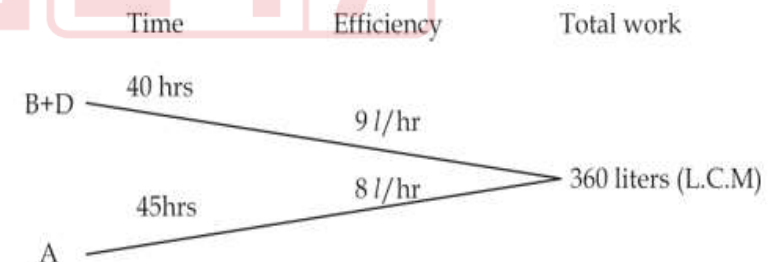
$$39 + 12 + 24 + ? = \frac{32}{100} \times 800$$

$$? = 256 - 75$$

$$? = 181$$

S53. Ans.(d)

Sol.



Atq,

$$\text{Efficiency of pipe - B} = 8 \times \frac{75}{100}$$

$$= 6 \text{ l/hr}$$

Let efficiency of pipe - D be 'x l/hr'

$$x - 6 = 9$$

$$x = 15 \text{ l/hr}$$

$$\text{Efficiency of Pipe - C} = 15 \times \frac{120}{100}$$

$$= 18 \text{ l/hr}$$

$$\text{Required time} = \frac{360 \times \frac{50}{100}}{(15+8)-18}$$

$$= \frac{180}{5} = 36 \text{ hrs.}$$

S54. Ans.(b)

Sol. Let initial quantity of petrol, diesel & kerosene oil in mixture-A be '2x', '3x' & '2x' liters respectively. And, let initial quantity of petrol, diesel & kerosene oil in mixture - B be '6y', '5y' & '4y' liters respectively.

Atq,

$$\frac{75}{100} \times 2x + \frac{100}{300} \times 6y = 36$$

$$1.5x + 2y = 36 \quad \dots(i)$$

And,

$$\frac{75}{100} \times 3x + \frac{100}{300} \times 5y = 42$$

$$\frac{9x}{4} + \frac{5y}{3} = 42$$

$$\frac{27x+20y}{12} = 42$$

$$27x + 20y = 504 \quad \dots(ii)$$

On solving (i) & (ii), we get:

$$x = 12, y = 9$$

$$\text{Required \%} = \frac{2x}{4y} \times 100$$

$$= \frac{12}{2 \times 9} \times 100$$

$$= 66\frac{2}{3}\%$$

S55. Ans.(a)

Sol.

Marks obtained by Veer in Hindi &

$$\text{English together} = \frac{48}{100} \times 300$$

$$= 144$$

Marks obtained by Shivam in science &

$$\text{I.T together} = \frac{40}{100} \times 400$$

$$= 160$$

$$\text{Required \%} = \frac{160-144}{160} \times 100$$

$$= 10\%$$

S56. Ans.(c)

Sol.

Total marks obtained by all four students

$$\text{in maths} = \left[300 \times \frac{20}{100} + \frac{22}{100} \times 400 + \frac{36}{100} \times 250 + \frac{28}{100} \times 350 \right]$$

$$= 60 + 88 + 90 + 98$$

$$= 336$$

$$\text{Required average} = \frac{336}{4} = 84$$

S57. Ans.(c)

Sol.

Marks obtained by Ayush in Hindi & Veer

$$\text{in I.T. together} = 250 \times \frac{20}{100} + 300 \times \frac{18}{100}$$

$$= 50 + 54 = 104$$

$$\text{Marks obtained by Shivam in Hindi} = 400 \times \frac{20}{100}$$

$$= 80$$

$$\text{Required \%} = \frac{104-80}{80} \times 100$$

$$= 30\%$$

S58. Ans.(a)

Sol.

Marks obtained by Anurag in science

$$\text{\& I.T. together} = 350 \times \frac{30}{100}$$

$$= 105$$

Difference of marks obtained by Ayush

$$\text{in Science \& I.T} = 250 \times \left(\frac{18-12}{100} \right)$$

$$= 15$$

$$\text{Required ratio} = \frac{105}{15}$$

$$= \frac{7}{1}$$

$$= 7 : 1$$

S59. Ans.(d)

Sol.

Average of marks obtained by Shivam

$$\text{in English \& Veer in IT} = \frac{\left(400 \times \frac{18}{100} + 300 \times \frac{18}{100} \right)}{2}$$

$$= \frac{72+54}{2} = 63$$

Average of marks obtained by Anurag in

$$\text{Hindi \& English} = \frac{\left(350 \times \frac{42}{100} \right)}{2}$$

$$= \frac{147}{2} = 73.5$$

$$\text{Required difference} = 73.5 - 63$$

$$= 10.5$$

S60. Ans.(d)

Sol.

Pattern of series -

$$111 + (1)^2 = 111 + 1 = 112$$

$$112 + (2)^2 = 112 + 4 = 116$$

$$116 + (3)^2 = 116 + 9 = 125$$

$$125 + (4)^2 = 125 + 16 = 141$$

$$141 + (5)^2 = 141 + 25 = 166$$

So, required number is 116.

S61. Ans.(a)

Sol.

Pattern of series -

$$780 - 11 \times 1 = 780 - 11 = 769$$

$$769 - 11 \times 3 = 769 - 33 = 736$$

$$736 - 11 \times 5 = 736 - 55 = 681$$

$$681 - 11 \times 7 = 681 - 77 = 604$$

$$604 - 11 \times 9 = 604 - 99 = 505$$

So, required number is 769.

S62. Ans.(e)

Sol.

Pattern of series -

$$2 \times 5 + 1 = 10 + 1 = 11$$

$$11 \times 4 + 2 = 44 + 2 = 46$$

$$46 \times 3 + 3 = 138 + 3 = 141$$

$$141 \times 2 + 4 = 282 + 4 = 286$$

$$286 \times 1 + 5 = 286 + 5 = 291$$

So, required number is 286.

S63. Ans.(b)

Sol.

Pattern of series -

$$\frac{548}{2} - 1 = 274 - 1 = 273$$

$$\frac{273}{2} - 1.5 = 136.5 - 1.5 = 135$$

$$\frac{135}{2} - 2 = 67.5 - 2 = 65.5$$

$$\frac{65.5}{2} - 2.5 = 32.75 - 2.5 = 30.25$$

$$\frac{30.25}{2} - 3 = 15.125 - 3 = 12.125$$

So, required number is 12.125.

S64. Ans.(a)

Sol.

Pattern of series -

$$6 \times 0.5 = 3$$

$$3 \times 1 = 3$$

$$3 \times 2 = 6$$

$$6 \times 4 = 24$$

$$24 \times 8 = 192$$

So, required number is 3.

S65. Ans.(e)

Sol.

Let number of employees in company - A be $5x$.

$$\text{So, number of employees in company - D} = 5x \times \frac{250}{100}$$

$$= 12.5x$$

$$\begin{aligned} \text{Number of employees in company - B} &= 12.5x \times \frac{2}{3} \\ &= \frac{25x}{3} \end{aligned}$$

$$\begin{aligned} \text{Number of employees in company - C} &= \frac{25x}{3} \times \frac{100}{250} \\ &= \frac{10x}{3} \end{aligned}$$

Atq,

$$5x + \frac{10x}{3} = 100$$

$$25x = 300$$

$$x = 12$$

Let average salary of A be Rs $5y$.

$$\text{So, average salary of B} = 5y \times \frac{160}{100}$$

$$= \text{Rs } 8y$$

$$\text{Average salary of D} = 8y \times \frac{75}{100}$$

$$= \text{Rs } 6y$$

$$\text{And, average salary of C} = 5y \times 2$$

$$= \text{Rs } 10y$$

Atq,

$$\frac{800000}{\frac{25}{3} \times 12} = 8y$$

$$\frac{100000 \times 3}{25 \times 12} = y$$

$$y = \text{Rs } 1000$$

Company	Number of employees	Average salary of employees
A	$5x = 60$	$5y = \text{Rs } 5000$
B	$\frac{25x}{3} = 100$	$8y = \text{Rs } 8000$
C	$\frac{10x}{3} = 40$	$10y = \text{Rs } 10,000$
D	$12.5x = 150$	$6y = \text{Rs } 6000$

$$\begin{aligned} \text{Average number of employees of} \\ \text{company - B \& D} &= \frac{100+150}{2} \end{aligned}$$

$$= 125$$

$$\text{Required difference} = 125 - (60 + 40)$$

$$= 25$$

S66. Ans. (d)

Sol.

Let number of employees in company - A be $5x$.

$$\text{So, number of employees in company - D} = 5x \times \frac{250}{100}$$

$$= 12.5x$$

$$\text{Number of employees in company - B} = 12.5x \times \frac{2}{3}$$

$$= \frac{25x}{3}$$

$$\text{Number of employees in company - C} = \frac{25x}{3} \times \frac{100}{250}$$

$$= \frac{10x}{3}$$

Atq,

$$5x + \frac{10x}{3} = 100$$

$$25x = 300$$

$$x = 12$$

Let average salary of A be Rs 5y.

$$\text{So, average salary of B} = 5y \times \frac{160}{100}$$

$$= \text{Rs } 8y$$

$$\text{Average salary of D} = 8y \times \frac{75}{100}$$

$$= \text{Rs } 6y$$

$$\text{And, average salary of C} = 5y \times 2$$

$$= \text{Rs } 10y$$

Atq,

$$\frac{800000}{\frac{25}{8} \times 12} = 8y$$

$$\frac{100000 \times 3}{25 \times 12} = y$$

$$y = \text{Rs } 1000$$

Company	Number of employees	Average salary of employees
A	$5x = 60$	$5y = \text{Rs } 5000$
B	$\frac{25x}{3} = 100$	$8y = \text{Rs } 8000$
C	$\frac{10x}{3} = 40$	$10y = \text{Rs } 10,000$
D	$12.5x = 150$	$6y = \text{Rs } 6000$

Total salary given by company - D = 150×6000

$$= \text{Rs } 900000$$

Total salary given by company - C = 40×10000

$$= \text{Rs } 400000$$

$$\text{Required \%} = \frac{900000 - 400000}{400000} \times 100$$

$$= 125\%$$

S67. Ans.(d)

Sol.

Let number of employees in company - A be $5x$.

$$\text{So, number of employees in company - D} = 5x \times \frac{250}{100}$$

$$= 12.5x$$

$$\text{Number of employees in company - B} = 12.5x \times \frac{2}{3}$$

$$= \frac{25x}{3}$$

$$\text{Number of employees in company - C} = \frac{25x}{3} \times \frac{100}{250}$$

$$= \frac{10x}{3}$$

Atq,

$$5x + \frac{10x}{3} = 100$$

$$25x = 300$$

$$x = 12$$

Let average salary of A be Rs $5y$.

$$\text{So, average salary of B} = 5y \times \frac{160}{100}$$

$$= \text{Rs } 8y$$

$$\text{Average salary of D} = 8y \times \frac{75}{100}$$

$$= \text{Rs } 6y$$

$$\text{And, average salary of C} = 5y \times 2$$

$$= \text{Rs } 10y$$

Atq,

$$\frac{800000}{\frac{25}{8} \times 12} = 8y$$

$$\frac{100000 \times 3}{25 \times 12} = y$$

$$y = \text{Rs } 1000$$

Company	Number of employees	Average salary of employees
A	$5x = 60$	$5y = \text{Rs } 5000$
B	$\frac{25x}{3} = 100$	$8y = \text{Rs } 8000$
C	$\frac{10x}{3} = 40$	$10y = \text{Rs } 10,000$
D	$12.5x = 150$	$6y = \text{Rs } 6000$

Number of employees in company

$$\text{-A in 2018} = \frac{525000}{5000 \times \frac{140}{100}}$$

$$= \frac{525000}{7000} = 75$$

$$\text{Required \%} = \frac{75 - 60}{60} \times 100$$

$$= 25\%$$

S68. Ans.(b)

Sol.

Let number of employees in company - A be $5x$.

$$\text{So, number of employees in company - D} = 5x \times \frac{250}{100}$$

$$= 12.5x$$

$$\text{Number of employees in company - B} = 12.5x \times \frac{2}{3}$$

$$= \frac{25x}{3}$$

$$\text{Number of employees in company - C} = \frac{25x}{3} \times \frac{100}{250}$$

$$= \frac{10x}{3}$$

Atq,

$$5x + \frac{10x}{3} = 100$$

$$25x = 300$$

$$x = 12$$

Let average salary of A be Rs $5y$.

$$\text{So, average salary of B} = 5y \times \frac{160}{100}$$

$$= \text{Rs } 8y$$

$$\text{Average salary of D} = 8y \times \frac{75}{100}$$

$$= \text{Rs } 6y$$

$$\text{And, average salary of C} = 5y \times 2$$

$$= \text{Rs } 10y$$

Atq,

$$\frac{800000}{\frac{25}{8} \times 12} = 8y$$

$$\frac{100000 \times 3}{25 \times 12} = y$$

$$y = \text{Rs } 1000$$

Company	Number of employees	Average salary of employees
A	$5x = 60$	$5y = \text{Rs } 5000$
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D	$12.5x = 150$	$6y = \text{Rs } 6000$

$$\text{Employees who left company - B} = \frac{20}{100} \times 100$$

$$= 20$$

Total salary given by company - B to all its employees after joining of new employees = 8000 (80 + 30)

$$= \text{Rs } 880000$$

Let average salary of new employees of company - B be Rs x.

Atq,

$$880000 - (800000 - 20 \times 20000) = 30x$$

$$\frac{480000}{30} = x$$

$$x = \text{Rs } 16000$$

S69. Ans.(a)

Sol.

Let number of employees in company - A be 5x.

$$\text{So, number of employees in company - D} = 5x \times \frac{250}{100}$$

$$= 12.5x$$

$$\text{Number of employees in company - B} = 12.5x \times \frac{2}{3}$$

$$= \frac{25x}{3}$$

$$\text{Number of employees in company - C} = \frac{25x}{3} \times \frac{100}{250}$$

$$= \frac{10x}{3}$$

Atq,

$$5x + \frac{10x}{3} = 100$$

$$25x = 300$$

$$x = 12$$

Let average salary of A be Rs 5y.

$$\text{So, average salary of B} = 5y \times \frac{160}{100}$$

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$$= \text{Rs } 6y$$

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$$= \text{Rs } 10y$$

Atq,

$$\frac{800000}{\frac{25}{8} \times 12} = 8y$$

$$\frac{100000 \times 3}{25 \times 12} = y$$

$$y = \text{Rs } 1000$$

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D	$12.5x = 150$	$6y = \text{Rs } 6000$

$$\text{Required average} = \frac{60+100+40+150}{4} = 87.5$$

S70. Ans.(b)

Sol.

Let number of employees in company - A be 5x.

$$\text{So, number of employees in company - D} = 5x \times \frac{250}{100}$$

$$= 12.5x$$

$$\text{Number of employees in company - B} = 12.5x \times \frac{2}{3}$$

$$= \frac{25x}{3}$$

$$\text{Number of employees in company - C} = \frac{25x}{3} \times \frac{100}{250}$$

$$= \frac{10x}{3}$$

Atq,

$$5x + \frac{10x}{3} = 100$$

$$25x = 300$$

$$x = 12$$

Let average salary of A be Rs 5y.

$$\text{So, average salary of B} = 5y \times \frac{160}{100}$$

$$= \text{Rs } 8y$$

$$\text{Average salary of D} = 8y \times \frac{75}{100}$$

$$= \text{Rs } 6y$$

$$\text{And, average salary of C} = 5y \times 2$$

$$= \text{Rs } 10y$$

Atq,

$$\frac{800000}{\frac{25}{8} \times 12} = 8y$$

$$\frac{100000 \times 3}{25 \times 12} = y$$

$$y = \text{Rs } 1000$$

Company	Number of employees	Average salary of employees
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D	$12.5x = 150$	$6y = \text{Rs } 6000$

Let the first term of AP be 'a' and the common difference be 'd'

Atq,

$$a + 11d = \frac{9}{4} (a + 4d)$$

$$4a + 44d = 9a + 36d$$

$$5a = 8d$$

$$a = 1.6d \quad \dots(i)$$

Now,

$$\frac{a+4d+a+5d+a+6d+a+7d}{4} = 35.5$$

$$2a + 11d = 71$$

On solving (i) & (ii), we get:

$$d = 5, a = 8$$

$$\text{Required number} = a + 14d$$

$$= 8 + 70$$

$$= 78$$

S71. Ans.(b)

Sol. "Abide by" is a phrasal verb which means formal to accept or obey an agreement, decision, or rule. 'Comply' means act in accordance with a wish or command. Since, 'comply' appropriately illustrates the meaning of 'abide by', option (b) is the most viable answer choice.

Flout means openly disregard (a rule, law, or convention).

Counter means denoting opposition, retaliation, or rivalry.

S72. Ans.(e)

Sol. If you **back down**, you withdraw a claim, demand, or commitment that you made earlier, because other people are strongly opposed to it. "Withdraw" means remove or take away (something) from a particular place or position. Since, 'withdraw' appropriately illustrates the meaning of 'back down'; option (e) is the most viable answer choice.

Mend means repair (something that is broken or damaged).

Replicate means make an exact copy of; reproduce.

S73. Ans.(a)

Sol. If you **cut down on** something or cut down something, you use or do less of it. 'Dwindle' means diminish gradually in size, amount, or strength. Since, 'dwindle' appropriately illustrates the meaning of 'cut down on'; option (a) is the most viable answer choice.

Invigorate means give strength or energy to.

Fierce means having or displaying an intense or ferocious aggressiveness.

Ameliorate means make (something bad or unsatisfactory) better.

S74. Ans.(a)

Sol. **Bash away at something** means to continue to work hard on something. Persevere is a verb which means continue in a course of action even in the face of difficulty or with little or no indication of success. Since, 'persevere' appropriately illustrates the meaning of 'bashing away at'; option (a) is the most viable answer choice.

S75. Ans.(e)

Sol. **To bear out something means** to support the truth of something, or to support someone's statement or claim. "Confirms" means state with assurance that a report or fact is true. Since, 'Confirms' appropriately illustrates the meaning of 'bear out'; option (e) is the most viable answer choice.

Ridicule means the subjection of someone or something to contemptuous and dismissive language or behaviour.

Tolerate means allow the existence, occurrence, or practice of (something that one dislikes or disagrees with) without interference.

S76. Ans.(b)

Sol. **Fawn (all) over someone** means to flatter someone or attend to someone excessively; to curry favor with someone. Flatter means lavish praise and compliments on (someone), often insincerely and with the aim of furthering one's own interests. Since, 'flatter' appropriately illustrates the meaning of 'fawned over'; option (b) is the most viable answer choice.

S77. Ans. (c)

Sol. "Make of" is a phrasal verb which means to understand someone or the meaning of something in a particular way. "Perceive" means interpret or regard (someone or something) in a particular way. Since, 'perceive' appropriately illustrates the meaning of 'make of'; option (c) is the most viable answer choice.

Slump means undergo a sudden severe or prolonged fall in price, value, or amount.

Distort means pull or twist out of shape.

Flaunt means display (something) ostentatiously, especially in order to provoke envy or admiration or to show defiance.

Evade means escape or avoid (someone or something), especially by guile or trickery.

S78. Ans.(e)

Sol. "Passed off" is a phrasal verb which means (of proceedings) happen or be concluded in a specified, usually satisfactory way. Therefore, "happen" appropriately illustrates the meaning of 'passed off'. Hence, option (e) is the most suitable answer choice,

S79. Ans.(d)

Sol. The error lies in part (D) of the sentence. It is to be noted that the phrases like 'a series of', 'a body of', 'a crowd of', 'a bunch of' are always associated with a plural noun. However, the verb is singular, since it depicts a singular series. Therefore, to make the sentence grammatically correct, replace 'scheme' with 'schemes'. Moreover, all the other parts of the sentence are correct. Hence, option (d) is the most suitable answer choice.

S80. Ans.(b)

Sol. The error lies in part (B) of sentence. To make the sentence grammatically correct replace "when" with "than". It is to be noted that with 'no sooner', the conjunction 'than' is used. Moreover, 'when' is used with 'no Hardly'. Hence, option (b) is the most viable answer choice.

S81. Ans.(a)

Sol. The error lies in part (A) of the sentence. It is to be noted that in cases where two incidents of past are mentioned, then generally the main clause is in

the past perfect tense, while the clauses beginning with words like 'when', 'before' etc., are in simple past tense. Therefore, to make the sentence grammatically correct replace, "when George had" with "when George". Moreover, since all the other parts of the sentence are grammatically correct, option (a) is the most viable answer choice.

S82. Ans.(e)

Sol. All the parts of the given sentence are grammatically correct and together form a contextually meaningful sentence. Therefore, option (e) is the most suitable answer choice.

S83. Ans.(a)

Sol. The error lies in part (A) of the sentence. To frame a grammatically viable sentence, replace "swam" with "swum" as the past form of "swim" is "swam" while past participle is "swum". Since, along with "has/have/had/having" past participle of the verb is used, swum is the correct form of the word required here. Hence, option (a) is the most suitable answer choice.

S84. Ans.(d)

Sol. The error lies in part (D) of the sentence. To frame a grammatically viable sentence, replace "than" with "to" as words like inferior, superior, junior, senior, anterior, posterior and prior are followed by 'to' for comparison. Hence, option (d) is the most suitable answer choice.

S85. Ans.(e)

Sol. All the parts of the given sentence are grammatically correct and together form a contextually meaningful sentence. Therefore, option (e) is the most suitable answer choice.



S86. Ans.(e)

Sol. The answer to the given question can be validated from the 2nd paragraph of the passage. Refer to the 1st, 3rd and 4th lines of the paragraph “–Higher import duties on steel add to their predicament. With steel being a common industrial input, any increase in import duties on steel causes widespread cost inefficiencies for user industries and induces import of steel-intensive goods such as earthmover and construction equipment from countries like China. Besides, it also discourages export of steel-intensive value added products, for example engineering goods, by making them expensive – adding to India’s current account woes”. After carefully reading the lines, it can be understood that all the given alternatives are the consequences of the expensive steel. Hence, option (e) is the most viable answer choice.

S87. Ans.(b)

Sol. The answer can be validated from the 3rd line of the 3rd paragraph “It has one of the lowest effective taxations after adjusting for numerous deductions and exemptions, besides having access to an increasingly captive domestic market. It gets preferential treatment compared to non-ferrous metals such as aluminium and copper.” However, alternative (I) weakens the statement (A) of the passage. Hence, option (b) is the most viable answer choice.

S88. Ans.(d)

Sol. Refer to the first sentence of 6th paragraph, “Thus, Indian steel companies *have access to cheaper raw material, a fast growing domestic market protected from import competition along with low effective taxation.* No surprise, sale of steel assets prompted by insolvency and bankruptcy proceedings *have best recovery rates* and there is intense competition among major bidders including defaulting promoters to acquire distressed steel assets.” Thus, after carefully reading these lines it can be understood that option (d) is the most suitable answer choice.

S89. Ans.(e)

Sol. To validate the answer refer to the last paragraph 1st, 2nd and 3rd sentences “The country should use its limited *financial tools such as subsidies and differential taxation policy to boost futuristic industries* such as artificial intelligence...Steel companies should rather be asked to focus on moving up the value chain *where quality and services and not price affect effective demand*....Besides, India *should remove import duties on recyclable steel scrap or metal scrap*”. Hence, option (e) is the most suitable answer choice.

S90. Ans.(e)

Sol. Indigenous means originating or occurring naturally in a particular place. Native means a local inhabitant. Since they both are synonymous to each other, option (e) is the most suitable answer choice. Exile means the state of being barred from one's native country, typically for political or punitive reasons
Immigrant means a person who comes to live permanently in a foreign country.
Eccentric means (of a person or their behaviour) unconventional and slightly strange.

S91. Ans.(a)

Sol. Whopping means very large. Colossal means extremely large or great. Since they both are synonymous to each other, option (a) is the most suitable answer choice.
Midget means a very small person or thing
Impish means inclined to do slightly naughty things for fun; mischievous.
Trivial means of little value or importance.

S92. Ans.(b)

Sol. Envisaged means contemplate or conceive of as a possibility or a desirable future event. Disregarded means pay no attention to; ignore. Since they are antonyms to each other, option (b) is the most feasible answer choice.
Confronted means come face to face with (someone) with hostile or argumentative intent.
Envisioned means imagine as a future possibility; visualize.

S93. Ans.(e)

Sol. The passage is describing about the level of air pollution that has been increased. Several harmful gases/pollutants that have been added to the air we breathe. Further the paragraph has also mentioned the immediate action required on the part of the government to control air pollution. The word highlighted is precisely contributing to the theme of the paragraph and does not require any replacements. Hence, option (e) is the most suitable answer choice.

Thickening means make or become thick or thicker.
Choking means swallow something with difficulty.
Suffocating means causing difficulty in breathing.

S94. Ans.(d)

Sol. The most suitable word to replace the incorrect highlighted word is "enormity" as the passage is describing about the level of air pollution that has been increased. Several harmful gases/pollutants that have been added to the air we breathe. Further the paragraph has also mentioned the immediate action required on the part of the government to control air pollution. The word required here is to describe the intensity of the pollutants arising. Thus, 'enormity' which means a grave crime or sin fits suitably. Hence, option (d) is the most suitable answer choice.

Hindrance means a thing that provides resistance, delay, or obstruction to something or someone.

Optimism means hopefulness and confidence about the future or the success of something.

Divinity means the state or quality of being divine.

S95. Ans.(b)

Sol. The most suitable word to replace the incorrect highlighted word is "findings". It is to be noted that the sentence has mentioned about some data highlighted in a study. Thus, the word that adheres to the grammatical syntax and context of the paragraph is "findings". All the other words fail to coherently fit in the paragraph. Hence, option (b) is the most suitable answer choice.

Studying means investigate and analyse (a subject or situation) in detail.

Allegation means a claim or assertion that someone has done something illegal or wrong, typically one made without proof.

S96. Ans.(c)

Sol. The paragraph is describing the rising level of pollution and the reasons behind it. One of the major reasons of increase in pollution in winter is

burning of stocks after the grain is harvested. Therefore, with reference to the given context, stubble replaces appropriately the incorrect highlighted word. All the other words are incoherent to the given paragraph. Hence, option (c) is the most suitable answer choice.

Stubble means the cut stalks of cereal plants left sticking out of the ground after the grain is harvested.

S97. Ans.(c)

Sol. The paragraph is describing about the stubble burning by farmers during winter season which leads to air pollution. Therefore, with reference to the given context, 'engulfs' replaces appropriately the incorrect highlighted word. All the other words are either grammatically incorrect or incoherent. Hence, option (c) is the most suitable answer choice.

Inundated means overwhelm (someone) with things or people to be dealt with.

Restricts means put a limit on; keep under control.

S98. Ans.(a)

Sol. The given sentence of the passage is describing the air quality of the country which is sometimes "very poor" and other times "hazardous". Therefore, with reference to the given context, 'oscillate' replaces appropriately the incorrect highlighted word. All the other words are either grammatically incorrect or incoherent. Hence, option (a) is the most suitable answer choice.

Oscillate means move or swing back and forth in a regular rhythm.

Deteriorate means become progressively worse.

Degenerate means lacking some usual or expected property or quality.

S99. Ans.(e)

Sol. The passage is describing about the level of air pollution that has been increased. Several harmful gases/pollutants that have been added to the air we breathe. Further the paragraph has also mentioned the immediate action required on the part of the government to control air pollution. The word highlighted is precisely contributing to the theme of the paragraph and does not require any replacements. Hence, option (e) is the most suitable answer choice.

Deteriorating means becoming progressively worse.

Prosecuting means institute or conduct legal proceedings against (a person or organization).

Incrementing means cause a discrete increase in (a numerical quantity).

S100. Ans.(b)

Sol. The most suitable word to replace the incorrect highlighted word is “gimmicks” which means a trick or device intended to attract attention, publicity, or trade. Here, the paragraph is emphasizing on the government’s part initiate measures to control pollution. However, it has also suggested that actions should be more than mere odd-even-traffic rule. Thus, usage of ‘conveyance’ is incorrect in the given paragraph. Hence, option (b) is the most suitable answer choice.

Supplant means supersede and replace.

Authorization means the action of authorizing.



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