

SSC CGL | SPECIAL MOCK TEST – 80 : SOLUTIONS

1. (a) W Z W T
 $\downarrow +0 \downarrow -4 \downarrow -8 \downarrow -12$
 W V O H
 $\downarrow +0 \downarrow -4 \downarrow -8 \downarrow -12$
 W R G V
 $\downarrow +0 \downarrow -4 \downarrow -8 \downarrow -12$
 W N Y J
 $\downarrow +0 \downarrow -4 \downarrow -8 \downarrow -12$
W J Q X

2. (c) M C F I
 $\downarrow +1 \downarrow +2 \downarrow +5 \downarrow +7$
 N E K P
 $\downarrow +1 \downarrow +2 \downarrow +5 \downarrow +7$
 O G P W
 $\downarrow +1 \downarrow +2 \downarrow +5 \downarrow +7$
 P I U D
 $\downarrow +1 \downarrow +2 \downarrow +5 \downarrow +7$
Q K Z K

3. (b) 3, 12, 7, 16, 11, 20, 15, **24**
 $\uparrow +9 \uparrow +9 \uparrow +9 \uparrow +9$

4. (b) STUDENT
 Alphabetical order
 D E N S T T U
 $\uparrow$
 13 letters

5. (c)
 6. (d)

7. (b) A G Similarly, C M
 $\downarrow +8 \downarrow +8 \downarrow +8 \downarrow +8$
 I O K U

8. (d) A ——— B
 The person seated opposite to 'A'

9. (a) T I M E
 $\downarrow +2 \downarrow +1 \downarrow +2 \downarrow +2$
 V J O G

Similarly,
 W O R D
 $\downarrow +2 \downarrow +1 \downarrow +2 \downarrow +2$
 Y P T F

10. (a) G N I D A E R
 $\swarrow \searrow \swarrow \searrow \swarrow \searrow \swarrow \searrow$
 READING
 Similarly,
 N O I T U L O S
 $\swarrow \searrow \swarrow \searrow \swarrow \searrow \swarrow \searrow$
 SOLUTION

11. (c) A Y R R J C
 $\downarrow +2 \downarrow +2 \downarrow +2 \downarrow +2 \downarrow +2$
 C A T T L E
Similarly,
 N C P D C A R
 $\downarrow +2 \downarrow +2 \downarrow +2 \downarrow +2 \downarrow +2$
 P E R F E C T

12. (c) 2, 3, 5, 7, 11, 13, 17, 20
 All numbers are prime number except 20

13. (c)

14. (a) $\ominus$
 Rani = Man
 $\nwarrow$
 Husband

15. (d) K 11 : I 9 : G 7
 $\uparrow -2 \uparrow -2$
 M 13 : K 11 : I 9
 $\uparrow -2 \uparrow -2$
 O 15 : M 13 : K 11
 $\uparrow -2 \uparrow -2$
 N 14 : K 11 : H 8
 $\uparrow -3 \uparrow -3$

16. (d)

17. (a) $\oplus$
 Woman
 $\nwarrow$
 Man
 $\swarrow$
 Son

18. (c) $\oplus$ — $\oplus$
 John — $\oplus$ = Woman

19. (b) $\ominus$ = $\oplus$
 $\nwarrow$
 Man — $\ominus$
 $\swarrow$
 Father

20. (c) 9 # 2 @ 3 \$ 1
 $= 9 \times 2 - 3 + 1$
 $= 18 - 3 + 1 = 16$

21. (c) Unit of power- watt, similarly

Unit of pressure - pascal
 22. (b) Mekong city is situated in Tibet, similarly Amazon city is situated in peru

23. (c) C G K
 $\downarrow +4 \downarrow +4 \downarrow +4$
 G K O
 $\downarrow +4 \downarrow +4 \downarrow +4$
 K O S
 $\downarrow +4 \downarrow +4 \downarrow +4$
 O S W
 $\downarrow +4 \downarrow +4 \downarrow +4$
S W A

24. (c) M I N
 $\downarrow +1 \downarrow +1 \downarrow -1$
 N J M
 $\downarrow +1 \downarrow +1 \downarrow -1$
 O K L
 $\downarrow +1 \downarrow +1 \downarrow -1$
 P L K
 $\downarrow +1 \downarrow +1 \downarrow -1$
Q M J

25. (d) B R F
 $\downarrow +3 \downarrow +3 \downarrow +2$
 E U H
 $\downarrow +3 \downarrow +3 \downarrow +2$
 H X J
 $\downarrow +3 \downarrow +3 \downarrow +2$
 K A L
 $\downarrow +3 \downarrow +3 \downarrow +2$
N D N

B-GENERAL AWARENESS

26. (b) Shahr-e Sokhta is considered a major part of the Helmand Civilization. This Bronze Age urban site is world-famous for its advanced urban planning, handicrafts, and early medical practices.

शहर-ए-सोख्ता (Shahr-e Sokhta) को हेलमंद सभ्यता का एक प्रमुख हिस्सा माना जाता है। यह कांस्य युगीन शहरी स्थल अपने उन्नत शहरी नियोजन, हस्तशिल्प और प्रारंभिक चिकित्सा पद्धति के लिए विश्व प्रसिद्ध है।

27. (c) According to Akbar's administrative reforms during the Mughal period (as described in the Aine-e-

Akbari), the area of present-day Basti district in Uttar Pradesh was part of the Gorakhpur Sarkar under the Subah of Awadh.

मुगल काल में अकबर के प्रशासनिक सुधारों (आईने - ए - अकबरी के अनुसार) के तहत, वर्तमान उत्तर प्रदेश के बस्ती जिले का क्षेत्र गोरखपुर सरकार (अवध सूबे के अंतर्गत) का हिस्सा था।

28. (d) During the early (Moderate) phase of the Congress, demands for administrative reforms were raised. The demand for the separation of the executive and judiciary was prominently raised to ensure that justice was fair and independent, rather than for their integration.

कांग्रेस के शुरुआती (उदारवादी) चरण में शासन सुधारों की मांग की गई थी। न्याय निष्पक्ष और स्वतंत्र हो, इसके लिए कार्यपालिका और न्यायपालिका के पृथक्करण की मांग प्रमुखता से उठाई गई थी, न कि उनके एकीकरण की।

29. (c) This famous statement was made by Mahatma Gandhi in view of the growing communal tensions in the country and the horrors of the period of Partition.

(1) **Pt. Jawaharlal Nehru** — “Aaram Haram Hai”

“Who lives if India dies”

(2) **Bal Gangadhar Tilak** — “Swaraj is my birthright”

(3) **Madan Mohan Malaviya** — “Satyameva Jayate”

(4) **Gandhiji** — “Do or Die”

यह प्रसिद्ध कथन महात्मा गांधी द्वारा देश में बढ़ते सांप्रदायिक तनाव और विभाजन के दौर की विभीषिका को देखते हुए कहा गया था।

(1) **पं. जवाहर लाल नेहरू** - “आराम हाराम है”

“हु लिक्स ईफ इंडिया डाइस”

(2) **बाल गंगाधर तिलक** - “स्वराज मेरा जन्मसिद्ध अधिकार है”

(3) **मदन मोहन मालवीय** - “सत्यमेव जयते”

(4) **गांधीजी** - “करो या मरो”

30. (b) The atmosphere of Venus contains a high concentration of carbon dioxide along with dense clouds of sulfuric acid (H_2SO_4).

शुक्र (Venus) के वायुमंडल में कार्बन डाइऑक्साइड की अधिकता के साथ-साथ सल्फ्यूरिक एसिड (H_2SO_4) के घने बादल पाए जाते हैं।

31. (a) Mushrooms contain high-quality protein, various vitamins (especially the B-complex vitamins), and folic acid in abundance.

मशरूम में उच्च गुणवत्ता वाला प्रोटीन, विभिन्न विटामिन (विशेषकर बी-कॉम्प्लेक्स) और फोलिक एसिड प्रचुर मात्रा में पाए जाते हैं।

32. (c) Power Finance Corporation Limited (PFC) was established in 1986. It is a major financial institution that supports the development and financial requirements of India's power sector.

पावर फाइनेंस कॉर्पोरेशन लिमिटेड (PFC) की स्थापना वर्ष 1986 में की गई थी, जो भारत के विद्युत क्षेत्र के विकास और वित्तीय जरूरतों को पूरा करने वाली मुख्य वित्तीय संस्था है।

33. (d) To increase the strength of an electromagnet, the most effective combination is a soft iron core (with high magnetic permeability), an increased number of turns, and increased current.

चुंबक की प्रबलता बढ़ाने के लिए नर्म लोहे की क्रोड (चुंबकीय पारगम्यता अधिक), फेरों की संख्या बढ़ाना और धारा बढ़ाना सबसे प्रभावी संयोजन है।

34. (c) Statement 3 is incorrect because, according to Newton's universal law of gravitation, gravitational force is directly proportional to the product of the masses. Therefore, it is weakest between small

bodies and strongest between massive bodies.

कथन 3 गलत है क्योंकि न्यूटन के सार्वत्रिक गुरुत्वाकर्षण नियम के अनुसार गुरुत्वाकर्षण बल द्रव्यमान के गुणनफल के समानुपाती होता है, इसलिए यह छोटे पिंडों के बीच सबसे कमजोर और विशाल पिंडों के बीच सबसे मजबूत होता है।

35. (b) The provision of assigning residuary powers to the Centre in the Indian Constitution was borrowed from the Constitution of Canada (Article 248).

भारतीय संविधान में अवशिष्ट शक्तियाँ (Residuary Powers) केंद्र को सौंपने की व्यवस्था कनाडा के संविधान से ली गई है (अनुच्छेद 248)।

36. (c) Article 23 of the Indian Constitution prohibits human trafficking, begar, and other forms of forced labour.

Article 15 – Prohibition of discrimination on grounds of religion, race, caste, etc.

Article 21 – Protection of life and personal liberty

Article 39 – Part of the Directive Principles of State Policy

भारतीय संविधान का अनुच्छेद 23 मानव तस्करी, बेगार तथा अन्य प्रकार के जबरन श्रम पर प्रतिबंध लगाता है।

अनुच्छेद 15 – धर्म, मूलवंश, जाति के आधार पर भेदभाव का निषेध

अनुच्छेद 21 – प्राण एवं दैहिक स्वतंत्रता

अनुच्छेद 39 – राज्य के नीति निर्देशक तत्व का हिस्सा

37. (a) The first Quad (India, USA, Japan, Australia) Summit was held in March 2021 through virtual mode.

Established – In 2007 by Japanese Prime Minister Shinzo Abe

What is the Quad? – It is a Quadrilateral Security Dialogue comprising four democratic countries: India, the United States, Japan, and Australia.

प्रथम क्वाड (भारत, अमेरिका, जापान, ऑस्ट्रेलिया) शिखर सम्मेलन मार्च 2021 (वर्चुअल माध्यम से) आयोजित किया गया था।

स्थापना- 2007 में जापान के PM शिंजो आबे द्वारा कि गई,
क्वाड क्या है -यह चार लोकतांत्रिक देशों -भारत, अमेरिका, जापान और ऑस्ट्रेलिया का एक चतुष्पक्षीय सुरक्षा संवाद संगठन है।

38. (c) The Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) serves both the objectives of employment generation and poverty alleviation by providing a legal guarantee of 100 days of employment per year to adult members of rural households.

महात्मा गांधी राष्ट्रीय ग्रामीण रोजगार गारंटी अधिनियम (MGNREGA) ग्रामीण परिवारों के वयस्क सदस्यों को वर्ष में 100 दिन के रोजगार की कानूनी गारंटी देकर रोजगार सृजन और गरीबी उन्मूलन दोनों उद्देश्यों को साधता है।

39. (b) The formula for de Broglie wavelength is given by. Since wavelength is inversely proportional to the square root of kinetic energy (E), increasing kinetic energy decreases the wavelength.

डी-ब्रॉग्ली तरंगदैर्घ्य का सूत्र है। चूँकि तरंगदैर्घ्य गतिज ऊर्जा (E) के वर्गमूल के व्युत्क्रमानुपाती होती है, इसलिए गतिज ऊर्जा बढ़ाने पर तरंगदैर्घ्य घटती है।

40. (c) Meiosis is a type of cell division that occurs in reproductive cells in which the number of chromosomes is reduced to half (haploid).

अर्धसूत्री विभाजन (Meiosis) जनन कोशिकाओं में होने वाला वह विभाजन है जिसमें गुणसूत्रों की संख्या आधी (अगुणित) हो जाती है।

41. (a) The descending limb of the Loop of Henle is permeable to water, not impermeable. हेनले लूप की अवरोही भुजा जल के लिए पारगम्य होती है, अपारगम्य नहीं।

42. (d) A Firewall is a network security system that acts as

a barrier between an internal network and the external Internet.

It is a Public Key Infrastructure that secures data through digital signatures and encryption. It is a technique used to detect vulnerabilities in a system's security.

फायरवॉल (Firewall) एक नेटवर्क सुरक्षा प्रणाली है जो आंतरिक नेटवर्क और बाहरी इंटरनेट के बीच अवरोध के रूप में कार्य करती है।

यह पब्लिक की इन्फ्रास्ट्रक्चर है जो डिजिटल सिग्नेचर और एन्क्रिप्शन के जरिए डेटा को सुरक्षित रखती है।

यह सिस्टम की सुरक्षा में कमियों का पता लगाने के लिए एक तकनीक है।

43. (a) Bandodkar Gold Trophy is a famous tournament associated with football.

Football = 11 players (Field length = 90-120 metres, width = 45-90 metres)

Tennis = 2/1 players (Court length = 78 feet, 27 feet wide)

Kho-Kho = 9 players

(Court length = 27 metres, width = 16 metres)

बांदोडकर गोल्ड ट्रॉफी फुटबॉल खेल से संबंधित एक प्रसिद्ध ट्रॉफी है।

फुटबॉल = 11 खिलाड़ी (मैदान की लम्बाई = 90 - 120 मीटर, चौड़ाई = 45 - 90 मीटर)

टेनिस = 2/1 खिलाड़ी (कोर्ट = 78 फीट लम्बाई, 27 फीट चौड़ाई)

खो-खो - 9 खिलाड़ी

(कोर्ट की लम्बाई 27 मीटर, चौड़ाई 16 मीटर)

44. (c) The Keshava Temple, located in Somnathpura in Mysore district of Karnataka, is an excellent example of Hoysala architecture (1268 CE) and is a magnificent Trikuta temple.

Established - By Soma, the commander of Hoysala King Narasimha III.

कर्नाटक के मैसूर जिले के सोमनाथपुरा में स्थित केशव मंदिर होयसल वास्तुकला

(1268 ईस्वी) का एक उत्कृष्ट त्रिकूट मंदिर है।

इसकी स्थापना - होयसल राजा नरसिम्हा III के सेनापति सोम द्वारा किया गया था।

45. (b) **Matki** dance is a famous traditional group folk dance of the Malwa region of Madhya Pradesh.

Assam — Bihu, Bagurumba, Bhor Tal

Bihar — Jhijhiya, Domkach, Jat-Jatin

Rajasthan — Ghoomar, Kalbelia, Bhavai

'मटकी' नृत्य मध्य प्रदेश के मालवा क्षेत्र का एक प्रसिद्ध पारंपरिक सामूहिक लोक नृत्य है।

असम - बिहू, बागुरुम्बा, भोरताल

बिहार - झिझिया, डोमकच, जट-जटिन

राजस्थान - घूमर, कालबेलिया, भवाई

46. (b) The official IATA code of Sardar Vallabhbhai Patel International Airport, located in Ahmedabad, is AMD.

अहमदाबाद स्थित सरदार वल्लभभाई पटेल अंतर्राष्ट्रीय हवाई अड्डे का आधिकारिक IATA कोड AMD है।

47. (d)

48. (b)

49. (d)

50. (b)

G - QUANTITATIVE APTITUDE

51. (d) According to the question, A's capital-time = 80,000 × 9 = 7,20,000
B's capital-time = 1,20,000 × 6 = 7,20,000
Therefore, the profit-sharing ratio is 1 : 1.

$$B's \text{ share} = ₹45,000 \times \frac{1}{2} = ₹22,500$$

52. (a) According to the question, the first multiple of 11 after 100 is 110 and the last multiple before 250 is 242. The multiples are in an arithmetic progression: 110, 121, 132, ..., 242. Average of an arithmetic progression = {First term + Last term}/2.

Therefore, average

$$= \frac{110 + 242}{2} = \frac{352}{2}$$

$$= 176$$

53. (c) According to the question,
Sum of 15 numbers = $15 \times 80 = 1200$

$$\text{Sum of first 6 numbers} = 6 \times 72 = 432$$

Average of next 6 numbers

$$= 72 \times \frac{125}{100} = 90, \text{ so their}$$

$$\text{sum} = 6 \times 90 = 540$$

Therefore, sum of the 13th, 14th and 15th numbers

$$= 1200 - 432 - 540 = 228$$

Let the 15th number be x .
Then the 13th number = $x + 8$ and the 14th number = $x - 10$.

$$\text{So, } (x + 8) + (x - 10) + x = 228$$

$$\Rightarrow 3x - 2 = 228$$

$$\Rightarrow x = \frac{230}{3}$$

Required average

$$= \frac{(x + 8) + (x - 10)}{2}$$

$$= x - 1 = \frac{227}{3}$$

$$= 75.67 \text{ (approximately)}$$

54. (c) According to the question,
annual return required = 9% of ₹8,00,000.

Annual return

$$= ₹8,00,000 \times \frac{9}{100}$$

$$= ₹72,000$$

Monthly return required

$$= \frac{₹72,000}{12} = ₹6,000$$

Since maintenance is ₹2,000 per month, required rent = ₹6,000 + ₹2,000 = ₹8,000.

55. (a) According to the question,
the amount doubles in every 5 years.

Since $8 = 2^3$, the amount has to double three times to become 8 times.

$$\text{Therefore, required time} = 3 \times 5 = 15 \text{ years.}$$

56. (c) According to the question,
the growth factor for one

$$\text{year is } \frac{7,920}{6,600} = 1.2.$$

Therefore, the rate of compound interest is 20% per annum.

Let the principal be P .
Then $P(1.2)^2 = 6,600$.

$$P = \frac{6,600}{1.44}$$

$$= ₹4,583.33 \text{ (approximately)}$$

57. (b) According to the question,
total cost = $25 \times 45 + 15 \times 50 = ₹1,125 + ₹750 = ₹1,875$.

Total quantity = $25 + 15 = 40$ litres.

Total selling price

$$= 40 \times 48 = ₹1,920$$

Therefore,

$$\text{Profit} = ₹1,920 - ₹1,875$$

$$= ₹45.$$

58. (a) According to the question,
200 cars were donated.
Hence, 1000 cars remained for distribution.
After 10% discount, selling

$$\text{price per car} = ₹120 \times \frac{90}{100}$$

$$= ₹108.$$

For every 8 purchased cars,
2 cars are free. Thus,
among 1000 distributed cars,
800 are purchased and 200 are free.

$$\text{Revenue} = 800 \times ₹108$$

$$= ₹86,400$$

$$\text{Total cost} = ₹90,000$$

Therefore,

$$\text{Loss} = ₹90,000 - ₹86,400$$

$$= ₹3,600$$

Loss percentage

$$= \left(\frac{3,600}{90,000} \right) \times 100 = 4\%$$

59. (c) Let the cost price be x .
According to the question,
Marked price = 180% of $x = 1.8x$.

After 25% discount, price

$$= 1.8x \times \frac{75}{100} = 1.35x$$

After another 10% discount, final price

$$= 1.35x \times \frac{90}{100} = 1.215x.$$

Therefore,

$$1.215x = 15,552$$

$$x = \frac{15,552}{1.215} = ₹12,800$$

60. (b) According to the question,

$$\text{juice} = 40 \times \frac{5}{8} = 25 \text{ litres}$$

$$\text{and water} = 40 \times \frac{3}{8} = 15 \text{ litres.}$$

Let x litres of water be added. Then the new water quantity is $(15 + x)$ litres.

Required ratio:

$$\frac{25}{15 + x} = \frac{2}{3}$$

Therefore,

$$75 = 30 + 2x$$

$$\Rightarrow 2x = 45$$

$$\Rightarrow x = 22.5 \text{ litres.}$$

61. (c) According to the question,

$$\text{A's one-day work} = \frac{1}{15} \text{ and}$$

$$\text{B's one-day work} = \frac{1}{20}.$$

Together, one-day work

$$= \frac{1}{15} + \frac{1}{20} = \frac{7}{60}$$

In 4 days, work completed

$$= 4 \times \frac{7}{60} = \frac{7}{15}$$

Therefore, remaining work

$$= 1 - \frac{7}{15} = \frac{8}{15}$$

62. (a) According to the question,
selling price of the mixture = ₹144 per kg.

With a 20% profit, cost price of the mixture

$$= \frac{144}{1.20} = ₹120 \text{ per kg.}$$

Using alligation, ratio of ₹90 oil to ₹150 oil = $(150 - 120) : (120 - 90) = 30 : 30 = 1 : 1$

63. (a) According to the question, combined rate of A, B and C = $\frac{1}{6} + \frac{1}{8} + \frac{1}{12}$.
LCM 24 gives combined rate = $\frac{4}{24} + \frac{3}{24} + \frac{2}{24} = \frac{9}{24}$
 $= \frac{3}{8}$ tank per hour.
In 2 hours, work completed = $2 \times \frac{3}{8} = \frac{3}{4}$.
Remaining work = $\frac{1}{4}$.
After C is closed, A and B together fill at the rate $\frac{1}{6} + \frac{1}{8} = \frac{7}{24}$ tank per hour.
Required additional time = $\left(\frac{1}{4}\right) \div \left(\frac{7}{24}\right) = \frac{6}{7}$ hours.
64. (c) According to the question, 30 minutes = $\frac{1}{2}$ hour.
Original distance = $240 \times \frac{1}{2} = 120$ km.
New distance = $120 + 20\%$ of $120 = 120 + 24 = 144$ km.
Time remains $\frac{1}{2}$ hour.
Therefore, new speed = $\frac{144}{\frac{1}{2}} = 288$ km/h.
65. (a) According to the question, when moving towards each other: $X + Y = \frac{360}{4} = 90$ km/h.
When moving in the same direction: $X - Y = \frac{360}{12} = 30$ km/h.
Adding the two equations: $2X = 120$.
Therefore, speed of X = 60 km/h.
66. (b) According to the question, 25% of the pizza remains.

Area of circle = πr^2
 $= \left(\frac{22}{7}\right) \times 21 \times 21$
 $= 1,386 \text{ cm}^2$
Remaining area = 25% of $1,386 = 346.5 \text{ cm}^2$.
(Note: the printed option in the supplied PDF is 346.36 cm^2 , while the standard calculation with $\pi = \frac{22}{7}$ gives 346.5 cm^2 .)

67. (a) According to the question, area of ring = $\pi(R^2 - r^2) = \pi(10^2 - 7^2) = 51\pi$.
Area of the whole outer circle = $\pi R^2 = 100\pi$.
Required ratio = $51\pi : 100\pi = 51 : 100$.
Since the question asks for an approximate ratio, $51 : 100$ is approximately $1 : 2$.
68. (b) According to the question, one complete turn covers the entire circumference.

A quarter turn covers $\frac{1}{4}$ of the circumference.
Therefore, percentage covered = $\left(\frac{1}{4}\right) \times 100 = 25\%$.

69. (c) According to the question, the point (1, 8) lies on $y = mx + 5$.
Putting $x = 1$ and $y = 8 : 8 = m(1) + 5$.
Therefore, $m = 8 - 5 = 3$.
70. (b) According to the question, evaluate each term:
 $31^3 = 29,791$; $18^3 = 5,832$; $37^3 = 50,653$.
Therefore,
 $31^3 + 18^3 - 37^3 + 210$
 $= 29,791 + 5,832 - 50,653 + 210$
 $= 35,623 - 50,653 + 210$
 $= -15,030 + 210$
 $= -14,820$
71. (b) According to the question, we have to arrange the fractions from smallest to greatest.
Convert them into decimal form:

$$\frac{5}{9} = 0.555..., \frac{4}{7} = 0.571...,$$

$$\frac{3}{5} = 0.600 \text{ and } \frac{2}{3} = 0.666...$$

Therefore, $\frac{5}{9} < \frac{4}{7} < \frac{3}{5} < \frac{2}{3}$.

Thus, the required ascending order is

$$\frac{5}{9}, \frac{4}{7}, \frac{3}{5}, \frac{2}{3}$$

72. (a) According to the question, $2\frac{1}{2} = 2.5$
Therefore, $(2.5 + 3.6) - 1.9 = 6.1 - 1.9 = 4.2$.
Hence, the required value is 4.2.
73. (c) According to the question, first simplify the innermost bracket.

$$\left(\frac{3}{4} - \frac{1}{4}\right) = \frac{1}{2}$$

Therefore,

$$\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$$

Now,

$$\frac{1}{3} - \frac{1}{4} = \frac{1}{12}$$

Thus,

$$\frac{5}{6} \div \frac{1}{12} = \frac{5}{6} \times 12 = 10$$

Hence,

$$7\frac{1}{4} - 10 = \frac{29}{4} - \frac{40}{4} = -\frac{11}{4}$$

$$= -2\frac{3}{4}$$

74. (b) According to the question, Python-proficient engineers = $50 + 70 = 120$
Java-proficient engineers = $50 + 60 = 110$
Therefore, required ratio = $120 : 110 = 12 : 11$
75. (d) According to the question, profit is divided in the ratio of capital $\times$ time.
Arvind's investment = $80,000 \times 12 = 9,60,000$

Bhavin's investment
 $= 1,20,000 \times 8 = 9,60,000$
 Chandan's investment
 $= 1,60,000 \times 4 = 6,40,000$
 Thus, the ratio $= 9,60,000$
 $: 6,40,000$
 $= 3 : 3 : 2$
 Chandan's share

$$= 1,05,000 \times \frac{2}{3} = ₹26,250$$

D-ENGLISH LANGUAGE

76. (b) **Cramped** (भीड़) means feeling or causing someone to feel uncomfortably confined or hemmed in by lack of space. Its opposite is **Spacious** (विशाल), which means having ample space.
Crammed (दूस दूस के भरा हुआ) means completely fill (a place or container) to the point of overflowing.
Filthy (गंदा) means disgustingly dirty.
Tight (कसा हुआ) means fixed, fastened, or closed firmly; hard to move, undo, or open.
77. (c) The correct spelling is "**frustration.**"
78. (a) Rachit had some important work and so he cancelled the show tickets for everyone.
Dog in the manger (कुत्ता जो बगीचे में है और खुद कुछ नहीं खाता, दूसरों को भी नहीं खाने देता) : refers to someone who prevents others from benefiting from something they do not use or want themselves.
79. (a) William Wordsworth was a romantic poet. He did things in an unusual manner.
 The indefinite article "a" is used before "romantic poet" because it refers to Wordsworth as one among many poets of the Romantic period.
 The indefinite article "an" is used before "unusual

manner" because "unusual" starts with a vowel sound.

80. (b) **(When Serena arrives)** uses the present simple tense, while the **main clause (she will call you)** uses the future simple tense .
 According to 1st Conditional: When/If + Present Simple, Future Simple.
81. (b) **Convinced** (विश्वस्त) : means having a strong belief or being sure about something. In this context, it suggests that while the speaker is doubtful about the story, the other person seems sure or convinced about it.
Pleasant (आनंदजनक) : refers to something enjoyable or agreeable, which does not fit the context of being doubtful or sure about a story.
Regretting (पछताना) : refers to feeling sorrow or remorse, which is unrelated to the context of being doubtful or sure about something.
Uncertain ((अनिश्चित) : means not sure.
82. (b) The correct order is CDAB.
 The sequence starts with Fotik's progress (C), followed by his backstory of being employed (D), details of the agreement (A), and concludes with the salary payment (B).
83. (c) **Outflow** (प्रवाह) means the movement or transfer of something out of a place. Its opposite is **Influx** (प्रवेश), which means an arrival or entry of large numbers of people or things.
Deluge (बाढ़) means a severe flood.
Income (आय) means money received, especially on a regular basis, for work or through investments.
Torrent (तेज धारा)
84. (c) **Has the car been broken by them?**

Active Voice: Auxiliary Verb ("Have") + Subject + Main Verb (Past Participle: "broken") + Object

Passive Voice: Auxiliary Verb ("Has") + Object ("the car") + "been" + Main Verb (Past Participle: "broken") + "by" + Subject

85. (c) The correct spelling is **Schedule**, means a plan or timetable of activities or events.

Literature (साहित्य) : Refers to written works, especially those considered of superior or lasting artistic merit.

Reformation (सुधार) : Refers to the process of improvement or change, particularly in a social or religious context.

Miserable (दुःखद) : Describes a state of being very unhappy, uncomfortable, or in distress.

86. (b) Active Voice Structure : **Auxiliary Verb** (did) + **Subject** (your father) + **Verb** (accompany) + **Object** (you)?

Passive Voice Structure : **Auxiliary Verb** (were) + **Subject** (you) + **not** + **Past Participle** (accompanied) + **by** + **Agent** (your father)?

87. (d) **Taciturn** (मौनी/कम बोलने वाला) means being reserved or speaking very little, often due to shyness or introversion. Its opposite is **Loquacious** (बातूनी), which refers to being very talkative or tending to speak freely and at length.

Laconic (संक्षिप्त) means using very few words, similar to being brief and concise.

Reticent (संकोची) means being unwilling to express

one's thoughts or feelings readily.

Withdrawn (अलग-थलग) means shy or introverted, often avoiding social interactions.

88. (d) When the main verb in the sentence is in the present tense (as in **"prepares"**), the auxiliary verb in the tag question should be in the present tense as well. Hence, the correct tag question would be **"doesn't she?"** instead of **"did she?"**.

89. (d) **Ominous** (अशुभ) means giving the impression that something bad or unpleasant is about to happen, often a sign of danger or trouble. Similarly, **Inauspicious** (अशुभ) refers to something not favorable or likely to bring bad luck.

Propitious (शुभ) means indicating a good chance of success or being favorable.

Blissful (आनंदमय) means full of joy or extreme happiness.

Profane (अपवित्र) means showing disrespect towards sacred or holy things.

90. (d) **The correct order is dcba :**
d. Introduces the right to dignity.
c. Explains how dignity can be earned.
b. Introduces human rights.
a. Specifies freedom of thought and expression as key human rights.

91. (d) **Back to the drawing board** means to start something again from the beginning

because the earlier attempt was unsuccessful. (किसी कार्य में असफल होने के बाद उसे नई शुरुआत से करना)

"Giving a penny for your thoughts" (आपके विचारों को जानने की इच्छा जताना) means to ask someone what they are thinking.

"Going to miss the boat" (अवसर खो देना) means to miss an opportunity.

"Going to bite the bullet" (साहसपूर्वक कठिनाई का सामना करना) means to face a difficult or unpleasant situation with courage.

92. (b) The correct phrase is **"cut back on"**, which means to reduce or decrease something, especially in the context of habits like eating junk food.

93. (d) **"wherein"** means "in which" or "inside which" and is used to refer to a place or situation, it indicates that the treasure chest was hidden inside the room.

whereof - Refers to the thing or matter being discussed

whereas - Used to introduce a contrast

94. (c) **Beyond the shadow of a doubt** means something is absolutely certain or undeniable, with no room for doubt.

95. (c) The correct order is **QRPO :**

Q. Starts the sentence: "in a world that can be."

R. Describes the world: "harsh and challenging."

P. Introduces the solution: "kindness and empathy."

O. Describes the result: "bring light and positivity."

96. (a)

97. (b)

98. (b)

99. (d)

100. (b)

ANSWER KEY

1. (a)	21. (c)	41. (a)	61. (c)	81. (b)
2. (c)	22. (b)	42. (d)	62. (a)	82. (b)
3. (b)	23. (c)	43. (a)	63. (a)	83. (c)
4. (b)	24. (c)	44. (c)	64. (c)	84. (c)
5. (c)	25. (d)	45. (b)	65. (a)	85. (c)
6. (d)	26. (b)	46. (b)	66. (b)	86. (b)
7. (b)	27. (c)	47. (d)	67. (a)	87. (d)
8. (d)	28. (d)	48. (b)	68. (b)	88. (d)
9. (a)	29. (c)	49. (d)	69. (c)	89. (d)
10. (a)	30. (b)	50. (b)	70. (b)	90. (d)
11. (c)	31. (a)	51. (d)	71. (b)	91. (d)
12. (c)	32. (c)	52. (a)	72. (a)	92. (b)
13. (c)	33. (d)	53. (c)	73. (c)	93. (d)
14. (a)	34. (c)	54. (c)	74. (b)	94. (c)
15. (d)	35. (b)	55. (a)	75. (d)	95. (c)
16. (d)	36. (c)	56. (c)	76. (b)	96. (a)
17. (a)	37. (a)	57. (b)	77. (c)	97. (b)
18. (c)	38. (c)	58. (a)	78. (a)	98. (b)
19. (b)	39. (b)	59. (c)	79. (a)	99. (d)
20. (c)	40. (c)	60. (b)	80. (b)	100. (b)