Q.1)

Ans) b

Exp) Refer to 'the estimates are based on administrative records of implementing the social security schemes, whose completeness, consistency, and accuracy are unknown; and since a formal sector worker, in principle, can legitimately access more than one social security scheme, double counting is a distinct possibility. The release does not explain how the problem is addressed in the database. Therefore, rightly, experts have demanded the release of the administrative data for independent verification.'

As per the highlighted fragments, I and II are correct while III is not. Hence, option B is correct.

Q.2)

Ans) a

Exp) Paragraph 3 talks about how the social schemes are applicable to a firm only once it reaches a certain threshold and how this shows that the people under a particular scheme may have increase by a huge amount but that does not correspond with an increase in actual employment. Basically, social security database is not a good source to understand about employment data.

This eliminates option B.

Option C is also incorrect as the paragraph does not state that enrolling is voluntary. Option D is incorrect as there is no matching of numbers as stated in the paragraph.

Only option A gives the best gist and states that the databases simply have the list of workers under the scheme but do not depict correct employment figures. Hence, option A is correct.

Q.3)

Ans) d

Exp) In the passage, it is mentioned that "If women had more control over family income and decisions, they would devote them to better pre and post-natal care and to their children." Implies that Status of women confirmed that hypothesis

Q.4)

Ans) c

Exp) In the passage, it is mentioned that "For more than 20 years India has even sustained the greatest effort in history to improve nutritional standards, according to UNICEF, through its Integrated Child Development Services (ICDS) Programme. So, it is not for lack of effort." From this author want to convey that there was no lack of effort in India.

Q.5)

Ans) a

Exp) In the passage, it is mentioned that "And this gap exists despite our much higher levels of per capita income, education and even safer water access." Implies that South Asia's performance in safer drinking water is better than that of sub-Saharan Africa.

Q.6)

Ans) b

Exp) From the passage, it can be concluded de-skilling refers to substitution of mechanized processes for labor formerly performed by skilled workers

Q.7)

Ans) c

Exp) In the passage, it is mentioned that "In automating, the industry moved to computer-based, digitized "numerical-control" (N/C) technology, rather than to artisan-generated "record-playback" (R/P) technology." Implies that N/C automation in the machine-tool industry was designed without the active involvement skilled machinists.

Q.8)

Ans) d

Exp) In the passage, it is mentioned that "Noble fails to substantiate this claim, although his argument is impressive when he applies the Marxist concept of "de-skilling" the use of technology to replace

skilled labor" implies author commends Noble's book for applying the concept of de-skilling to the machine tool industry.

Q.9)

Ans) c

Exp) When three boys joined his rank dropped by two it becomes 17^{th} from 15^{th} and it means two boys who joined were in front of him and one behind him. So, his rank is 17 among (48+3) students, then his rank from the end = $(51 - 17) = 34^{\text{th}}$

Q.10)

Ans) c Exp) Clearly, $n(S) = (6 \times 6) = 36$. Let E = Event that the sum is a multiple of 3 (i.e. 3, 6, 9 and 12) Then E = (1, 2), (2, 1), (1, 5), (5, 1), (2, 4), (4, 2), (3, 3), (3, 6), (6, 3), (4, 5), (5, 4) and (6, 6) n(E) = 12. $P(E) = \frac{n(E)}{n(S)} = \frac{12}{36} = \frac{1}{3}$

Q.11)

Ans) b Exp) Let speed of A and B be a and b respectively. Then, 20(a + b) = 100(a-b) $\Rightarrow (a + b) = 5(a - b)$ $\Rightarrow 6b = 4a$ i.e., if a=6, b=4Required percent $=\frac{2}{4} \times 100 = 50\%$

Q.12)

Ans) c

Exp) The above given conditions are possible only when U = 8, Z = 9 and Q = 0. Sum of these digits is 17.

Q.13)

Ans) c

Exp) Time taken by Amitabh to travel from the meeting point to Bodhgaya,

=10:32 am-9:27 am=1 hr 5 min

Speed of Amitabh and Roma = 4:5

Since time is inversely proportional to speed, time taken by Roma to travel from Bodhgaya to the meeting point = $(1 \text{ hr } 5 \text{ min}) \times 4/5 = 48 + 4 = 52 \text{ min}$

Therefore, time at which they both reached the meeting point = 8:20 am + 52 min = 9:12 amTime that they spent together for coffee and burger = 9:27 am - 9:12 am = 15 minutes.

Q.14)

Ans) d

Exp) We need to find ordered pairs (x, y) such that $x \times y \times hcf(x, y) = 120$.

Let x = ha and y = hb where h = HCF(x, y)

So h³ab=120

We need to write 120 as a product of a perfect cube and another number. So, the only possibility is $(2^3) \times (3) \times (5)$

From above h = 2, a = either 3 or 5 and b = 3 or 5

So, there is only pair (3, 5) of integer that satisfies the conditions given in question.

Q.15)

Ans) c

Exp) Suppose the can initially contains 7x and 5x of kerosene and diesel respectively.

Quantity of A in mixture left = $(7x - \frac{7}{12} \times 9)$ *litres* = $(7x - \frac{21}{4})$ *litres* Quantity of B in mixture left = $(5x - \frac{5}{12} \times 9)$ *litres* = $(5x - \frac{15}{4})$ *litres*

 $=\frac{7x-\frac{21}{4}}{5x-\frac{15}{4}+9} = \frac{7}{9}$ = $\frac{(28x-21)}{20x+21} = \frac{7}{9}$ => 252x - 189 = 140x + 147 => 112x = 336 => x = 3. So, the can contained 21 litres of kerosene.

Q.16)

Ans) d

Exp) Count the number of odd days from the year 2007 onwards to get the sum equal to 0 odd day. Year : 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 Odd day: 1 2 1 1 1 2 1 1 1 2 1 Sum = 14 odd days = 0 odd days. Calendar for the year 2018 will be the same as for the year 2007.

Q.17)

Ans) c

Exp) Let Roshan's 1 day's work = x and Mithu's 1 day's work = y. Then, x + y = 1/30 and 16x + 44y = 1. Solving these two equations, we get: x = 1/60 and y = 1/60Mithu's 1 day's work = 1/60Hence, B alone shall finish the whole work in 60 days.

Q.18)

Ans) c

Exp) Let the prize be x, x+5, x+10, x+15, x+20, x+25, x+30 and x+35 makes an AP with number of terms is 8 and common difference is 5 sum of terms is 164 Now,

 $= S_n = \frac{n}{2} [2a + (n - 1)d]$ = 164 = 4[2a + 7 × 5] = a = 3 4th highest prize is fifth term the given AP = x+20 = 3 + 20 = 23

Q.19)

Ans) b

Exp) Let w be the time taken in one way by walking and c be the time taken in one way by car.

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Then, according to the question,

In first case, w + c = 7 h 30 min ..... (i)

=> 2w + 2c = 15 h

In second case 2c = 4 h 30 min ...... (ii)

From equation (i) and (ii),

2w + 2c = 15 h

=> 2w + 4 h 30 min = 15 h

=> 2w = 15h - 4 h 30 min

=> 2w = 10 h 30 min

Hence, if he walks both ways, then the time taken is 10 h 30 min.
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Q.20)

Ans) b

Exp) Let the principle amount be "p" and amount paid by Rajesh and Suresh are a_1 and a_2 respectively. Amount paid by Rajesh $(a_1) = P + \text{simple interest of 3 years} = P + \frac{3P}{R}$ Amount paid by Suresh $(a_2) = P(1 + R)^3$ Given, Difference in amount $(a_2 - a_1) = \text{Rs. 21.7}$ And, $a_1 = P + \frac{3P}{10}$ And, $a_2 = P\left(1 + \frac{10}{100}\right)^3$

Therefore,

 $= P \left(1 + \frac{10}{100} \right)^3 - \left(P + \frac{3P}{10} \right) = 21.7$ => $P \left[\left(\frac{11}{10} \right)^3 - 1 - \frac{3}{10} \right] = 21.7$ => P [1331 - 1000 - 300] = 21700=> $P = \frac{21700}{31} = Rs.700$

Q.21)

Ans) d Exp) Income of Suzuki in 2011 = $1.55 \times 12 \times 10^5$ = 18.6 lakh Investment in 2012 = 18.6 lakh Profit earned in 2012 = $55/100 \times 18.6 \times 10^5$ = 10.23 lakh

Q.22)

Ans) d Exp) Investment of Hyundai in 2015 = $24 \times 10^5/1.60$ = 15 lakh Profit in 2015 = 24 - 15 = 9 lakh. Profit in 2014 = $45/100 \times 15 \times 10^5$ = 6.75 lakh Required answer = 9 - 6.75= 2.25 lakh

Q.23)

Ans) c Exp) Let the amount invested by Hyundai and Suzuki in the year 2012 be x each. Income of Hyundai in 2012 = 1.70x Income of Suzuki in 2012 = 1.55 x Ratio = Hyundai/Suzuki = 1.70x/1.55x = 34/31 = 34: 31

Q.24)

Ans) b Exp) Amount invested by Suzuki in 2016 = $1/3 \times 27 \times 10^5$ = 9 lakh Amount invested by Hyundai in 2016 = $2/3 \times 27 \times 10^5$ = 18 lakh Profit earned by Suzuki = $80/100 \times 9 \times 10^5$ = 72×10^4 Profit earned by Hyundai = $75/100 \times 18$ = 13.5 lakh Total profit = 13.5 + 7.2 = 20.7 lakh

Q.25)

Ans) d Exp) Average = 80 + 180 +130 +170 +140 + 160/6 = 860/6 = 143 × 1/3

Q.26) Ans) c Exp) Required ratio = 80 + 180 + 130/120+210 +150 = 390/480 = 13 :16

Q.27)

Ans) a

Exp) Total required difference = (160 - 120) + (220 - 150) + (290 - 240) = 40 + 70 + 50 = 160 thousands

Q.28)

Ans) d

Exp) Total production in 2019 = (280 + 120 + 100) × 118/100 = 500× 118/100 = 590 thousand

Q.29) Ans) c Exp) Given x + y = 11.....(i)10x + y + 45 = 10y + x(ii)From equation (i) and (ii), we get X = 3 and y =8 So, the number is 38.

Q.30)

Ans) c

Exp) Given,

The average run scored by Ram in 15 innings is N runs. Hence the total runs scored = 15N. The score in sixteenth innings = N + 48,

The average run scored by Ram after sixteenth innings will be = $\frac{15N+N+48}{16} = N + 3$.

Q.31)

Ans) c

Exp) Refer the first two sentences of the passage "In a poor country like India, as income rises people first concentrate on increasing their consumption of what they regard as basic or more essential consumer goods. For the poor, these goods would primarily include cereals and for people at successive levels of higher income protective foods, simple non-food consumer goods, more modern, better quality non-food consumer goods and simple consumer durables, better quality consumer goods, and so on."

Q.32)

Ans) d

Exp) Refer to the sentence mentioned in passage "For the poor, these goods would primarily include cereals and for people at successive levels of higher income protective foods, simple non-food consumer goods, more modern, better quality non-food consumer goods and simple consumer durables, better quality consumer goods, and so on."

Q.33)

Ans) d

Exp) Refer to the sentence mentioned in passage "For the poor, these goods would primarily include cereals and for people at successive levels of higher income protective foods, simple non-food consumer goods, more modern, better quality non-food consumer goods and simple consumer durables, better quality consumer goods, and so on."

Q.34)

Ans) a

Exp) Refer to the sentence mentioned in passage "Approach to the Seventh Plan, importance was given to edible oils, pulses and some of the other protective foods but the overall impression created was that food grains still hold the centre of the stage".

Q.35)

Ans) c

Exp) In the passage, the author is describing how pain signals are conveyed in the body and discussing ways in which the pain signals can be blocked.

Q.36) Ans) d

Exp) In the passage, it is mentioned that "When a cell is injured, a rush of prostaglandins sensitizes nerve endings at the injury." Implies that the flood of prostaglandins sensitizes nerve endings at the site of the injury is the first things to occur when cells are injured.

Q.37)

Ans) d

Exp) In the passage, it is mentioned that "It now appears that a number of techniques for blocking chronic pain-such as acupuncture and electrical stimulation of the central brain stem-involve the release of endorphins in the brain and spinal cord." Implies that if after acupuncture, a patient with chronic back pain reports that the pain is much less severe is the most likely attributable to the effect of endorphins.

Q.38)

Ans) b

Exp) In the passage, it is mentioned that "When electrical impulses get to the spinal cord, a painsignaling chemical known as substance P is released there. Substance P then excites nearby neurons to send impulses to the brain." Implies that if the prostaglandin synthetase is only partially blocked then some substance P is likely to be produced, so some pain signals will reach the brain.

Q.39)

Ans) a

Exp) Given that Equation is $(16: 32 - 2 \times 3 + 4)$ Now, by assigning the proper signs in the given expression, $16 + 32: 2 - 3 \ge 4 = 16 + 16 - 12 = 20$

Q.40)

Ans) b

Exp) For the least possible number of casks of equal size, the size of each cask must be of the greatest volume.

To get the greatest volume of each cask, we have to find the largest number which exactly divides 435, 609 and 290. That is nothing but the H.C.F of (435, 609, and 290)

The H.C.F of (435, 609, 290) = 29 litres

Each cask must be of the volume 29 litres.

Req. No. of casks is

 $=\frac{435}{29} + \frac{609}{29} + \frac{290}{29}$

 $= 15^{29} + 21^{29} + 10^{29} => 46$

Hence, the least possible number of casks of equal size required is 46.

Q.41)

Ans) d

Exp) Average price of pulse in Agra in Jan = $\frac{14}{4} \times (20 + 40 + 60 + 70) = \text{Rs } 47.5$ Feb = $\frac{14}{4} \times (30 + 50 + 60 + 70) = \text{Rs } 52.5$ March = $\frac{14}{4} \times (10 + 40 + 70 + 80) = \text{Rs } 50$ April = $\frac{14}{4} \times (20 + 40 + 50 + 60) = \text{Rs } 42.5$ May = $\frac{14}{4} \times (30 + 50 + 70 + 80) = \text{Rs } 57.5$ In May the average price is maximum

Q.42)

Ans) a

Exp) rate of Faba Beans in Agra in May = 50 rate of Pigeon Peas in Vrindavan in April = $40 \ge 4/3 = 53.33$ req percentage = $50/53.33 \ge 100 = 93.75\%$

Q.43) Ans) d Exp) Price of Cow Peas in Agra in Jan = Rs 20

price of Cow Peas in agra in may = Rs 30 percentage inc = (30-20)/20 x 100 = 50%

Q.44)

Ans) b

Exp) Average rate of Pigeon Peas in Agra during 5 months = $1/5 \ge (60 + 70 + 80 + 40 + 70) = 64$ Average rate of Cow Peas in Agra during 5 months = $1/5 \ge (20 + 60 + 40 + 50 + 30) = 40$ Average rate of Chick Peas in Agra during 5 months = $1/5 \ge (70 + 30 + 70 + 60 + 80) = 62$ Average rate of Pigeon Peas in Faba Beans during 5 months = $1/5 \ge (40 + 50 + 10 + 20 + 50) = 34$

Q.45)

Ans) d

Exp) Total number of SIMs sold by Jio =56000 × 70/100 + 78000 × 60/100 + 80000 × 55/100 +60000 × 70/100 + 810000 × 63/100 = 39200 + 46800 + 44000 + 42000 + 51030 = 223030 Average = 223030/5 = 44606

Q.46)

Ans) b

Exp) Sale of Airtel = $70000 \times 52/100$ = 36400Total number of SIMs produced by Jio = 81000Required % = $36400/81000 \times 100$ = $44.938 \approx 45\%$

Q.47)

```
Ans) c
Exp) Airtel sold in February = 72000 × 58/100
= 41760
Airtel sold in March = 92000 × 75/100
= 69000
Required % rise = (69000 -41760)/41760 ×100
= (27240 ×100)/41760
= 65.229
= 65%
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Q.48)

Ans) d Exp) Jio sold in February = 78000 × 60/100 = 780 × 60= 46800 Airtel sold in April = 68000 × 60/100 = 680 × 60 = 40400 Ratio = 46800/40400 = 780/680 = 39/34 = 39: 34



This 35 is the CP of (6 + 1) hence the CP for 6 will be 30 (50-30)/30*100= 66 (2/3)%

Q.54)

Ans) b Exp) Original price of rice = x rs/kg Reduced price = $\frac{100-6.25}{100}x = 0.9375x$ She can buy one kg more with reduced money So, $\frac{240}{0.9375x} - \frac{240}{x} = 1$ => x = 16 So, previous price = 16 rs/kg Current price = 0.9375 × 16 = 15 rs

Q.55)

Ans) a

Exp) From the Statement (1), C is in the South of B and B is in the West of A. Hence, A is East of B.

Q.56)

Ans) d Exp) r = 7, h = 24 So, slant height, $l = \sqrt{(24)^2 + (7)^2} = 25 \text{ cm}$ So curved surface area of a cap = $\pi rl = 22/7 * 7 * 25 = 550 \text{ sq. cm}$ So curved surface area of 5 such caps = 550*5 = 2750 sq. cm which is also equal to the area of the sheet required to make 5 such caps.

Q.57)

Ans) a Exp) A: B: $C = \frac{1}{2} : \frac{2}{3} : \frac{3}{4} = 6 : 8 : 9$ (*Multiply each ratio by LCM*) B's share = $299 \times \frac{8}{23} = 104$

Q.58)

Ans) d

Exp)

| Institute | Competitive Examination | Weekly off |
|-----------|----------------------------|------------|
| Р | Banking | Wednesday |
| Q | SSC | Sunday |
| R | NET | Saturday |
| S | Engineering | Thursday |
| Т | Medical | Tuesday |
| U | CAT | Friday |
| V | TET | Monday |

Q.59) Ans) a

Exp)

| Institute | Competitive Examination | Weekly off |
|-----------|----------------------------|------------|
| Р | Banking | Wednesday |
| Q | SSC | Sunday |
| R | NET | Saturday |
| S | Engineering | Thursday |
| Т | Medical | Tuesday |
| U | CAT | Friday |
| V | TET | Monday |

Q.60) Ans) c

Exp)

| Institute | Competitive Examination | Weekly off |
|-----------|----------------------------|------------|
| Р | Banking | Wednesday |
| Q | SSC | Sunday |
| R | NET | Saturday |
| S | Engineering | Thursday |
| Т | Medical | Tuesday |
| U | CAT | Friday |
| V | TET | Monday |

Q.61)

Ans) d

Exp) Unless we know the exact salary of the employees, we can't calculate the average salary.

Q.62)

Ans) c

Exp) As we are talking about the minimum average salary, we will assume the minimum value of the range for each group. For example, 90 females will have Rs 5000 as the minimum salary and 28 female employees will have Rs 10000 as the minimum salary. $90 \times 5000 + 28 \times 10000 + 8 \times 15000 + 3 \times 20000 + 1 \times 25000$ 935000

| $0000 + 6 \times 15000 + 5 \times 20000 + 1 \times 25000$ | 933000 | ~ ' | 7101 | 2 |
|---|------------|-----|------|---|
| 90 + 28 + 8 + 3 + 1 | 130 | = . | 1192 | 2 |

Q.63)

Ans) d

Exp) We do not know the exact salaries of those 3 male employees and 1 female employee who earn more than Rs 25000. So, we can't say anything about this.

Q.64)

Ans) b

Exp) Total no. of employees = 461

No. of employees who earn more than or equal to 10000 but less than 20000 = 48 + 28 + 16 + 8 = 100Therefore, *required percentage* = $\frac{100}{461} \times 100 \approx 21.7\%$

Q.65)

Ans) d

Exp) There are 286 male employees and 175 female employees in the company. (a) and (b) are easily inferred from the data but (c) is not, as we cannot find the number of employees earning more than or equal to 5000 but less than or equal to 10000.

Q.66)

Ans) b Exp) Let the cost price = Rs. 100 Selling price = Rs. 150 Printed price = $\frac{100}{100-40} \times 150 = Rs. 250$ So, the required ratio = $\frac{Cost \ price}{printed \ price} = \frac{100}{250} = \frac{2}{5}$ => 2: 5

Q.67)

Ans) b Exp) The total number of Green colour ball in Tennis = 50000The total number of Green colour ball in Cricket = $50000 \times 3 / 2 = 75000$ The total number of Balls in Cricket = $75000 \times 100 / 12 = 625000$

Q.68)

Ans) a Exp) The total number of other colour Balls in Cricket after 2 years = 150000 × 10 / 100 = 15000 For first year = 150000 + 15000 = 165000 = 165000 × 10 / 100 = 16500 For second year = 165000 + 16500 = 181500 = 181500

Q.69)

Ans) c

Exp) Total Ball in Cricket = 1200000 Blue colour balls in Cricket = 1200000 × 26 / 100 = 312000 Blue colour balls in Tennis = 312000 × 5 / 3 = 520000 Total Balls in Tennis = 520000 × 100 / 30 = 1733333.3 = 1733333 = 17.3 lakh

Q.70)

Ans) d

Exp) The Ratio between the number of Orange colour ball in Tennis and that of Blue colour ball in Cricket Number of Orange colour ball in Tennis = 859000 × 22/100 = 188980 Number of Blue colour ball in Cricket = 786000 × 26/100 = 204360 Ratio = 188980: 204360 = 37796: 40872

Q.71)

Ans) b

Exp) Question Type: Yes/No Is the number 5(a + b) + c divisible by 5?

Given information: a, b and c are integers. You can Use Conceptual Knowledge here. Given that each of these numbers is an integer, 5(a + b) will be a multiple of 5 regardless of the values of a and b. Therefore you are simply focused on the question "Is c a multiple of 5?" If c is a multiple of 5 then the whole thing is divisible by 5. If c is not a multiple of 5 then the whole thing is not divisible by 5.

Statement 1: a + b is not divisible by 5. As mentioned above the value of a + b does not matter. So this statement is not sufficient alone. This is the advantage of doing your work early. When you truly understand the question you can work through the statements very efficiently. This statement is not sufficient. The correct answer is B, C, or E.

Statement 2: c is divisible by 5. This is an exact answer to the question that you developed by manipulating the question stem. If c is a multiple of 3 and since we know from algebra that 5(a + b) will also be a multiple of 5 then we also know that adding two multiples of 5 gives a result that is a multiple of 5. Try it. Make c = any multiple of 5. Then make a and b any integers at all. 5(a + b) will also be a multiple of 5 and "5(a + b) + c = a multiple of 5." The answer is always "yes." It is consistent and sufficient. The correct answer is B.

Q.72)

Ans) d

Exp) From the passage it can be inferred that there is no lack of cultural norms.

Q.73)

Ans) b

Exp) In the passage it is mentioned that "National character is not formally considered by social scientists in discussing economic and social development today. They believe that people differ and that these differences should be taken into account somehow" implies that the social scientists would agree that models of economic and social development would be improved by the inclusion of adequate descriptions of national character.

Q.74)

Ans) a

Exp) In the passage a problem is presented and reasons for its existence are supplied.

Q.75)

Ans) d

Exp) In the passage it is mentioned that "Mores, which embodied each culture's ideal principles for governing every citizen, were developed in the belief that the foundation of a community lies in the cultivation of individual powers to be placed in service to the community." Implies that mores in preliterate cultures concerned such skills as warfare and food-gathering because these skills were demonstrations of an individual's contributions to the community

Q.76)

Ans) a

Exp) The author concluded that "morality" must be concerned with what is honored by the community at large implies according to author the position of the sociocentrics is stronger than that of the egocentrics.

Q.77)

Ans) b

Exp) The author be most likely to agree that the unfulfilled citizen cannot fulfill his moral obligations to the community.

Q.78)

Ans) d

Exp) From the passage it can be inferred that according to author U.S. want to use that report as a handle against the developing countries in the forthcoming meet.

Q.79)

Ans) d

Exp) In the passage it is mentioned that "relaxing the standards for drinking water" implies that option (d) in not true in the context of the passage.

Q.80)

Ans) b

Exp) In the passage it is mentioned that "skeptics might question the timing of the haze report. The Johannesburg meet on Rio+10 is just two weeks away and the stage is set for the usual battle between the developing world and the West" Implies that according to author meet is going to witness a blaming game between developed and developing countries.