

SBI PO Preliminary Grand Test –SPP-180759

HINTS & SOLUTIONS

ANSWER KEY

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

HINTS & SOLUTION

1. (1) Of all the expressions provided, expressions II and III can replace the highlighted part of the sentence. Expression I cannot be a replacement for this question as the phrase *caught the fancy* means *to be appealing or pleasing to someone*. Also, 'cryptocurrencies' is the main subject of the sentence which is a plural noun and hence it should take plural verb 'have' after it and not 'has'.
2. (4) The highlighted part of the sentence contains prepositional error i.e., 'in' should be replaced with 'of' to make it grammatically correct and contextually meaningful. 'Exploit in' depicts the degradation that's occurring within the natural resources whereas if you see it contextually, over-exploitation is occurring in context to natural resources therefore it should take 'of' after it.
- Of all the expressions provided, expressions I and II can be replacements to the highlighted part of the sentence. Expression III contains prepositional error which makes it grammatically incorrect. Preposition 'in' should be replaced with preposition 'of' in case of statement III.
3. (4) The sentence contains a phrasal error. Catch at means to seize or hold which does not fit in the context of the sentence. Choices I and II can be replacements for the highlighted part as both the words signify the same meaning i.e., advancement. Catch up means to reach someone or something by moving faster than the other person which finds the meaning in the sentence as the sentence is talking about the challenges posed by the artificial intelligence and the need to meet the challenges through scientific upheaval.

4. (2) The highlighted part of the sentence contains an error as there is omission of 'on' in the sentence. 'On' will be placed ahead of 'more' in **context to indicate device or machine**. Here, 'on' is used to indicate imported goods. Other than this, 'import' will be replaced with 'imported' as the sentence requires an adjective. Expressions I and II contains errors. In case of expression II, the usage of word 'then' is wrong as it is used to indicate something in relation to the time.
- Therefore, only expression III will be the replacement for the highlighted context. Hence option (2) is the correct choice.
5. (4) The highlighted part of the sentence contains an error. All the expressions provided in the choices serves as replacement to the highlighted phrase. In the highlighted part, 'late' should be replaced with 'latest' as it fits in the context of the sentence which is referring to the recent report released by the nature magazine. As all the given options can replace the highlighted phrase, option (4) becomes the most viable answer choice.
6. (2) The highlighted part of the sentence is incorrect. **As** is used to denote **reason for something** but its usage in the context is wrong as the sentence is talking about the obsession of US on improving IER with china despite its score on measuring index being better than India. Therefore, it should be substituted with '**Even though**' or '**Despite it being**' which means **despite the fact that**.
- Therefore, option (2) serves as the correct answer choice.
7. (1) The highlighted part of the sentence is contextually incorrect as '**abduct**' means to take away to an undisclosed location against their will.
- Obviate means to eliminate the need for something
Adduct means to force. Maneuver means to direct or guide which fits in the context of the sentence as the role of counsellors and coaches and other self-help are depicted as the medium to guide or direct the industries on a problem. Therefore, option (1) becomes the most suitable answer choice.
8. (4) The highlighted part of the sentence has an error. In place of 'challenge', the correct word would be 'challenges' as the verb given is 'indicate' which is a plural verb. Also, there are numerous problems highlighted and therefore challenges will justify them and make the sentence grammatically correct. All the three phrases stand correct for the replacement of the incorrect part of the sentence.
9. (1) The highlighted part of the sentence is grammatically and contextually incorrect as the former part of the sentence is indicating a future event that is about to happen [**there will be almost 'NIL'**]; while the bold part of the sentence is depicting a past event which is creating a contextual error.
- Expression III will be a replacement to the highlighted context as the word 'shall' depicts the event that is likely to happen whereas 'will' is used when there is surety of the event that is going to occur in future. Moreover, in expression (I) approve means 'officially agree to or accept as satisfactory' giving it a contextual error. Expression II cannot be a replacement to this sentence as tractability means flexibility which is not correct in the context of the sentence. Hence, option (1) is the most viable answer choice.

Grand Test – SPP 180759



10. (1) The highlighted context is grammatically incorrect as the usage of word widely is wrong in the context of the sentence. 'Wildly' will replace 'Widely' in the sentence as wildly shows fierce nature of the addictive drugs. As the sentence is in present continuous therefore in place of verb 'use' there will be 'using'. Therefore, only expression III is the replacement for the incorrect part.
11. (2) As mentioned in the first paragraph of the passage, Demographic dividend can increase the economic growth through different ways like rise in labour force (including women) and a massive shift in the middle- class society. Hence option (2) is the correct choice. Refer the lines "The first channel is through the swelling of the labour force, as more people reach working age." "The sixth channel is a massive shift towards a middle-class society that is already in the making." "The third channel is the rise in women's workforce that naturally accompanies a decline in fertility"
12. (4) According to the passage, Demographic dividend depends on the skilled workforce and increase in globalization and industrialization thus creating more jobs. Hence option (4) is the correct choice. Refer the lines in second paragraph of the passage "There is mounting concern that future growth could turn out to be jobless due to de-industrialization, de-globalization, and the fourth industrial revolution and technological progress." "A lot depends on whether the bulge in working population can be trained, and enough jobs created to employ the 10 million more people who will join the labour force every year."
13. (4) We can derive the conclusion from second paragraph of the passage which states that digital technologies may enable the creation of more jobs but India may not be able to take the advantage and hence there will be lack of jobs that increase the share of the population that will be dependent on the working population. Hence option (4) is the correct choice. Refer the lines "While digital technologies may enable the creation of new products and more productive jobs, they may also substitute existing jobs. India may not be able to take advantage of these opportunities, due to a low human capital base and lack of skills. Lack of jobs combined with a demographic dividend will increase the share of the population that is dependent on the working population."
14. (3) We can refer the third paragraph of the passage which states that India needs to invest more and more effectively in people through quality education, skills, health care that will translate into higher rates of economic growth and job creation. Hence, we can conclude that option (3) is the correct choice. Refer the lines "Investing in people through healthcare, quality education, jobs and skills helps build human capital, which is key to supporting economic growth, ending extreme poverty, and creating more inclusive societies".
15. (4) "Demographic dividend, growth and jobs" is an appropriate title of the passage.
16. (4) We can infer from the third paragraph of the passage. Refer "It has made gains in human development, but challenges remain, including big barriers to secondary schooling, low-quality public services, and gender discrimination." Also refer to the last paragraph of the passage "High-quality education is one of the strongest ways for countries to reduce poverty, achieve gender equality, and create more jobs."
17. (3) Bulge means an unusual temporary increase in number or size. Hence it has same meaning as rise, augmentation and surge. Humongous means huge, enormous.
18. (4) Accompany means support or assist. Hence it has same meaning as encourage and support. Urge means try earnestly or persistently to persuade to do something. Harness means control or tackle.
19. (4) Mounting means grow larger or more numerous. Hence it has opposite meaning as diminish and Taper. Tumbling means fall suddenly. Entrench means establish and settle.
20. (5) Massive means large and heavy or solid. Hence it has opposite meaning as meagre, paltry, miniature and petite.
21. (2) The paragraph is describing about the implications of the GST policies on the tax payer. Moreover, it's also highlighting the gaps offered in the solution for simplifying GST returns through IT system. The most suitable word that would comply with the theme of the paragraph is 'collections' as the sentence of the paragraph is describing about the revenues collected by GST council through industry in the month of April. All the other words fail to fit appositely in the given blank, hence, option (2) becomes the most suitable answer choice.
22. (5) The most appropriate word that fills the given blank is 'compliant'. 'Compliant' is an adjective which is describing about the quality of the 'tax payer base'. It means to be disposed to agree with others or obey rules, especially to an excessive degree; acquiescent. All the other words fail to fit in the given blank. Hence, option (5) is the most suitable answer choice. Biased means unfairly prejudiced for or against someone or something. Hesitant means tentative, unsure, or slow in acting or speaking. Obstinate means stubbornly refusing to change one's opinion or chosen course of action, despite attempts to persuade one to do so. Adamant means refusing to be persuaded or to change one's mind.
23. (4) The word that perfectly fills the given blank is "introduce" as the phrase [a new compliance system] provides a hint that the GST council will suggest a system to make the life of tax payers simpler. Moreover, all the other words fail to fit contextually in the given sentence. Hence, option (4) is the most suitable answer choice. Furnish means provide (a house or room) with furniture and fittings. Subjugate means bring under domination or control, especially by conquest. Confer means grant (a title, degree, benefit, or right).
24. (2) The most appropriate word that fits in the given blank is 'barring'. 'Barring' which is a preposition means except for; if not for. The word is used in the paragraph to refer the exclusion of exceptions in the policy of single monthly GST return. The other words given in the options fail to provide contextual meaning to the sentence. Hence, option (2) is the most viable answer choice. Regarding means in respect of; concerning. Reviewing means assess (something) formally with the intention of instituting change if necessary.
25. (1) The paragraph is describing about the implications of the GST policies on the tax payer. Moreover, it's also highlighting the gaps offered in the solution for simplifying GST returns through IT system. The most suitable word for the given blank is 'transition' which means the process or a period of changing from one state or condition to another. The word 'transition' is used here in reference to the upcoming changes in the GST return policy. The hint for the word can also be

observed from the phrase in the latter part of the paragraph [the second stage of the transition to simpler returns]. All the other words fail to provide absolute contextual meaning to the paragraph. Hence, option (1) is the most suitable answer choice.

26. (3) Mutation means the action or process of mutating. The most suitable word that perfectly fits in the theme of the paragraph is 'simplifying'. The phrase [GST Council would make life simpler] in the former part of the paragraph provides a hint that GST council must have introduced a system to "simplify" the life of tax payers. The other words do not fit either grammatically or contextually in the sentence. Hence, option (3) is the most viable answer choice.

Rousing means exciting; stirring. Omitting means leave out or exclude (someone or something), either intentionally or forgetfully.

27. (4) The sentence is expressing that to make the life of the tax payers simpler the firm in charge of the GST Network's IT system has been consulted. 'Consulted' means seek information or advice from (someone, especially an expert or professional). All the other words create a contextual error in the paragraph. Hence, option (4) is the most suitable answer choice.

Huddled means heap together in a disorderly manner. Negotiated means obtain or bring about by discussion.

28. (2) The given blank of the sentence can be filled with the word "gaps". 'Gaps' referred to the shortcomings of the flaws of the policy newly framed. It is to be noted that the conjunction 'yet' is used to introduce a contrasting statement. Therefore, as the paragraph is describing about making the life simpler for tax payers, 'yet' is used to indicate a contrasting word that should fill the blank. All the given, except for option (2) fail to make the paragraph coherent.

Regulations means a rule or directive made and maintained by an authority. Prospects means the possibility or likelihood of some future event occurring.

29. (2) The most appropriate word that fills the given blank is 'provisional'. 'Provisional' is an adjective which means to be arranged or existing for the present, possibly to be changed later. All the other words fail to fit in the given blank. Hence, option (2) is the most suitable answer choice. Amplified means increase the volume of (sound), especially using an amplifier.

Equivalent means equal in value, amount, function, meaning, etc.

30. (1) The given blank of the sentence should be filled with the word "invoices". As mentioned in the previous sentence [even if the seller doesn't upload the invoices] the noun 'invoices' is used in the similar context. 'Invoices' means a list of goods sent or services provided, with a statement of the sum due for these; a bill. All the other words do not fill the blank correctly. Hence option (1) is the most feasible answer choice.

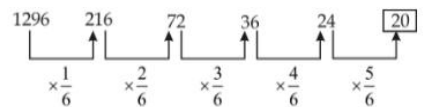
Affidavits means a written statement confirmed by oath or affirmation, for use as evidence in court.

Remarks means a written or spoken comment

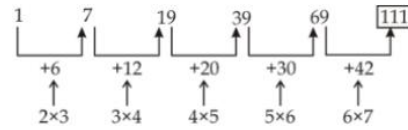
31. (4)



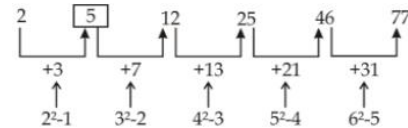
32. (2)



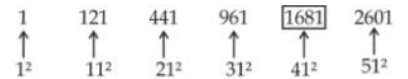
33. (5)



34. (5)

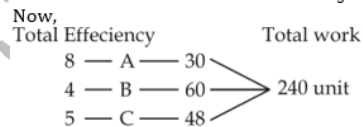


35. (4)



36. (4)

Let efficiency of A be $200x$
 Efficiency of B = $200x \times \frac{50}{100} = 100x$
 Efficiency of C = $100x \times \frac{125}{100} = 125x$
 Ratio of their efficiency =
 A : B : C = $200x:100x:125x = 8 : 4 : 5$
 A alone can complete work in = $60 \times \frac{4}{8} = 30$ days
 C alone can complete work in = $60 \times \frac{4}{5} = 48$ days



On last day, C alone completes work = 5 unit
 Work done by A and C together in 5 days = $(8 + 5) \times 5 = 65$ unit

Remaining work was completed by A, B and C in
 $= \frac{240 - 65 - 5}{8 + 4 + 5} = \frac{170}{17} = 10$ days

Number of days for which A worked = $10 + 5 = 15$ days

37. (2)

Let Cost Price of each good be Rs $100x$
 Then Marked Price of each good be Rs $100x \times \frac{120}{100} = Rs 120x$
 Let total number of goods be $4y$
 Now, SP of $(\frac{3}{4} \times 4y = 3y)$ goods = $3y \times 125x = 375xy$
 S.P. of remaining good = $y \times 120x = 120xy$
 Total S.P. = $375xy + 120xy = 495xy$
 Profit % = $\frac{(SP - CP)}{CP} \times 100$
 $= \frac{495xy - 4y \times 100x}{4y \times 100x} \times 100$
 $= \frac{95}{400} \times 100 = 23\frac{3}{4}\%$

38. (1)

Interest received by Arun in scheme I,
 $S.I. = \frac{P \times R \times T}{100}$ (where, P- principal, R- Rate and T- time)
 $S.I. = \frac{x \times 12 \times 3}{100} = \frac{36x}{100}$

C.I. received by Kush after 2 years = $P \left[\left(1 + \frac{r}{100} \right)^2 - 1 \right]$
 $= (x + 4000) \left[\left(1 + \frac{20}{100} \right)^2 - 1 \right]$
 $= (x + 4000) \times \frac{11}{25}$

ATQ,
 $\frac{36x}{100} + \frac{11}{25}(x + 4000) = 3360$
 $36x + 44(x + 4000) = 3360 \times 100$
 $\Rightarrow x = 2000$

Sum invested by Kush = $x + 4000 = 2000 + 4000 = Rs.6000$

Grand Test – SPP 180759



39. (3) Let total mixture of milk and water be $100x$
 \therefore Amount of water in mixture = $\frac{3}{5} \times 100x = 60x$
 Amount of milk in mixture = $100x - 60x = 40x$
 Amount of milk left in mixture after selling 37.5% of mixture
 $= 40x - 40x \times \frac{37.5}{100}$
 $= 40x - 15x$
 $= 25x$
 Amount of water left in mixture after selling 37.5% of mixture
 $= 60x - 60x \times \frac{37.5}{100}$
 $= 60x - \frac{45x}{2}$
 $= \frac{75x}{2}$
 ATQ,
 $\Rightarrow \frac{25x}{\frac{75x}{2} + 62.5} = \frac{2}{5}$
 $\Rightarrow 125x = 75x + 125$
 $\Rightarrow 50x = 125$
 $\Rightarrow x = \frac{125}{50}$
 $\Rightarrow x = 2.5$
 \Rightarrow Initial quantity of mixture = $100x = 100 \times 2.5 = 250 \text{ } \ell$

40. (5) Total expenditure of employee
 $=$ Income - Savings
 $= 1,20,000 - 1,20,000 \times \frac{40}{100}$
 $=$ Rs 72000
 Average expense on lifestyle, transportation and clothing together
 $= \frac{1}{3} \left[\frac{57^\circ}{360^\circ} + \frac{54^\circ}{360^\circ} + \frac{45^\circ}{360^\circ} \right] \times 72000$
 $= \frac{1}{3} \times \frac{156^\circ}{360^\circ} \times 72000$
 $= 10400$
 Average expense on transportation and daily necessities together
 $= \frac{1}{2} \left[\frac{54^\circ}{360^\circ} + \frac{120^\circ}{360^\circ} \right] \times 72000$
 $= 17400$
 Required difference = $17400 - 10400$
 $=$ Rs 7000

41. (2) Total expenditure of employee
 $= 1,20,000 \times \frac{(100-40)}{100} = 72000$
 Savings before increase in expenditure
 $= 1,20,000 \times \frac{40}{100} = 48000$
 Increase in expense on Home Loan EMI
 $= \frac{61.5^\circ}{360^\circ} \times 72000 \times \frac{10}{100}$
 $= 1230$
 Increase in expense on transportation
 $= \frac{54^\circ}{360^\circ} \times 72000 \times \frac{20}{100}$
 $= 2160$
 Total expenditure after respective expenses increased = $72000 + 1230 + 2160$
 $= 75390$
 New savings = $1,20,000 - 75390$
 $= 44610$
 percentage change in saving
 $= \frac{(48000 - 44610)}{48000} \times 100 = 7.0625\% \approx 7\%$

42. (4) Total expenditure of employee
 $= 1,20,000 \times \frac{(100-40)}{100} = 72000$
 Expense on Lifestyle and daily necessities together
 $= \left(\frac{57^\circ}{360^\circ} + \frac{120^\circ}{360^\circ} \right) \times 72000$
 $= 35400$
 Expense on Clothing and other together
 $= \left(\frac{45^\circ}{360^\circ} + \frac{22.5^\circ}{360^\circ} \right) \times 72000$
 $= 13500$

Required percentage = $\frac{(35400-13500)}{13500} \times 100$
 $= \frac{219}{135} \times 100 = 162\frac{2}{9}\%$
 Alternate,
 Required percentage = $\frac{(57+120)-(45+22.5)}{45+22.5} \times 100$
 $= \frac{177 - 67.5}{67.5} \times 100 = 162\frac{2}{9}\%$

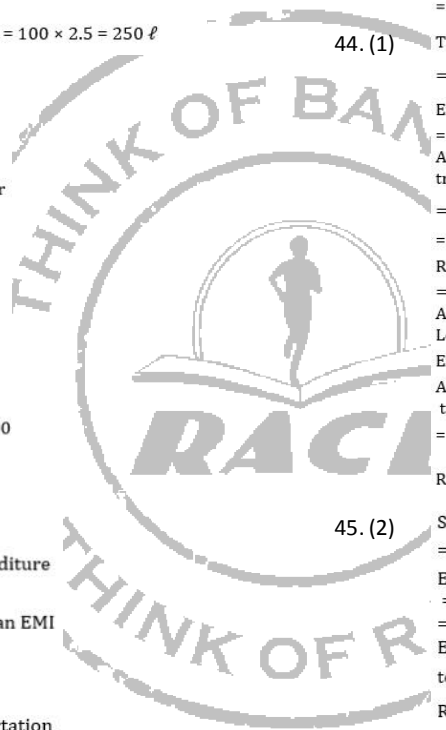
43. (1) Employee's new Income
 $= 1,20,000 \times \left(\frac{100 - 20}{100} \right)$
 $= 1,20,000 \times \frac{80}{100}$
 $= 96000$
 New total expenditure
 $= 96000 - 96000 \times \frac{60}{100}$
 $=$ Rs 38400
 Old total expenditure
 $= 1,20,000 \times \frac{(100 - 40)}{100} = 72000$
 Required difference
 $= \frac{57^\circ}{360^\circ} \times 72000 - \frac{57^\circ}{360^\circ} \times 38400$
 $= 5320$

44. (1) Total expenditure
 $= 1,20,000 \times \frac{(100 - 40)}{100} = 72000$
 Expense on Touring = $\frac{22.5}{360} \times 72000 \times \frac{75}{100}$
 $= 3375$
 Average expenses in clothing and transportation
 $= \frac{1}{2} \left[\frac{45^\circ}{360^\circ} + \frac{54^\circ}{360^\circ} \right] \times 72000$
 $= 9900$
 Required ratio = $\frac{3375}{9900}$
 $= 15 : 44$
 Alternate,
 Let Total expense = $100x$
 Expense on touring = $\frac{22.5}{360} \times \frac{75}{100} \times 100x = \frac{75x}{16}$
 Average Expense on clothing and transportation together
 $= \frac{1}{2} \left[\frac{45}{360} + \frac{54}{360} \right] \times 100x = \frac{55x}{4}$
 Required ratio = $\frac{\frac{75x}{16}}{\frac{55x}{4}} = \frac{15}{44}$

45. (2) Savings of employee
 $= 1,20,000 \times \frac{40}{100} = 48000$
 Employee's total expenditure
 $= 1,20,000 - 48000$
 $= 72000$
 Expense on Lifestyle and daily necessities together
 $= \left(\frac{57^\circ}{360^\circ} + \frac{120^\circ}{360^\circ} \right) \times 72000$
 Required percent = $\frac{35400}{48000} \times 100$
 $= 73.75\%$
 Alternate,
 Let Total Income = $100x$
 Expense on Lifestyle and daily necessities together
 $= \left(\frac{57^\circ}{360^\circ} + \frac{120^\circ}{360^\circ} \right) \times \frac{60}{100} \times 100x = 29.5x$
 Employee's saving = $\frac{40}{100} \times 100x = 40x$
 Required percentage = $\frac{29.5x}{40x} \times 100 = 73.75\%$

46. (2) P (Arun speak truth) = $\frac{4}{5}$
 P (Bhavya speak truth) = $\frac{6}{7}$

Required probability
 $= \frac{4}{5} \times \frac{1}{7} + \frac{1}{5} \times \frac{6}{7}$
 $= \frac{10}{35}$
 $= \frac{2}{7}$



47. (2) Sum of money invested by man in scheme I

$$= 3600 \times \frac{7}{7+6+5}$$

$$= 3600 \times \frac{7}{18} = 1400$$

Interest received in I scheme, $CI_1 = P \left[\left(1 + \frac{R}{100} \right)^2 - 1 \right]$

(P- principal, R- rate)

$$= 1400 \left[\left(1 + \frac{10}{100} \right)^2 - 1 \right]$$

$$= \text{Rs } 294.$$

Sum of money invested in scheme II = $3600 \times \frac{6}{7+6+5}$

$$= 3600 \times \frac{6}{18} = 1200$$

Interest received in II scheme, $SI = \frac{\text{Principal} \times \text{Rate} \times \text{Time}}{100}$

$$= \frac{1200 \times 12 \times 2}{100}$$

$$= \text{Rs } 288$$

Sum of money invested in scheme III

$$= 3600 \times \frac{5}{7+6+5}$$

$$= 3600 \times \frac{5}{18} = \text{Rs } 1000.$$

Interest received in scheme III,

$$CI = P \left[\left(1 + \frac{r}{100} \right)^2 - 1 \right]$$

$$= 1000 \left[\left(1 + \frac{r}{100} \right)^2 - 1 \right]$$

ATQ,

$$294 + 288 + 1000 \left[\left(1 + \frac{r}{100} \right)^2 - 1 \right] = 1832$$

$$\left(1 + \frac{r}{100} \right)^2 - 1 = \frac{1250}{1000}$$

$$\left(1 + \frac{r}{100} \right)^2 - 1 = \frac{5}{4}$$

$$1 + \frac{r}{100} = \frac{3}{2}$$

$$\frac{r}{100} = \frac{3}{2} - 1$$

$$\frac{r}{100} = \frac{1}{2}$$

$$r = \frac{1}{2} \times 100$$

$$r = 50\%$$

48. (4) Volume of cylinder = $\pi r^2 h$ (r- radius of cylinder, h- height of cylinder)

$$= \pi \times (13)^2 \times 56$$

$$= \pi \times 169 \times 56 \text{ cm}^3$$

Volume of hemispherical bowl = $\frac{2}{3} \pi [a^3 - b^3]$ (a- outer radius, b- inner radius)

$$= \frac{2}{3} \pi \left[\left(\frac{16}{2} \right)^3 - \left(\frac{14}{2} \right)^3 \right]$$

$$= \frac{2}{3} \pi \times 169 \text{ cm}^3$$

ATQ,

$$\pi \times 169 \times 56 = \pi \times \frac{2}{3} \pi \times 169$$

$$n = 84$$

49. (3) $CI = P \left[\left(1 + \frac{r}{100} \right)^n - 1 \right]$ (P- principal, r- rate and n- time)

ATQ,

$$P \left[\left(1 + \frac{20}{100} \right)^2 - 1 \right] - P \left[\left(1 + \frac{20}{100} \right) - 1 \right] = 444$$

$$P \left[\frac{36}{25} - 1 \right] - P \left[\frac{6}{5} - 1 \right] = 444$$

$$\frac{11P}{25} - \frac{P}{5} = 444$$

$$11P - 5P = 444 \times 25$$

$$6P = 444 \times 25$$

$$P = \text{Rs } 1850$$

50. (1) 5 years ago, sum of ages of 5 members = $29 \times 5 = 145$ years

Let bride's present age be x years.

Present sum of age of family members after Ram's marriage and birth of his child.

$$= 145 + 5 \times 5 + x + 1 = 171 + x$$

ATQ,

$$\frac{171 + x}{7} = 28$$

$$171 + x = 196$$

$$x = 25 \text{ years}$$

Bride's age at the time of marriage

$$= x - 3$$

$$= 25 - 3 = 22 \text{ years}$$

51. (3) Total number of child tourist who visited Goa in 2017

$$= \frac{840}{28} \times [100 - (42 + 28)]$$

$$= 900$$

Total number of Adult female tourist visit Agra

$$= \frac{680}{40} \times 32$$

$$= 544$$

Required difference = $900 - 544 = 356$

52. (2) Let total number of tourist visiting Delhi is 3x and Mumbai is 5x

Required ratio = $\frac{3x \times \frac{44}{100}}{5x \times \frac{42}{100}}$

$$= 22 : 35$$

53. (4) Let total number of tourist visiting Delhi is 11x and Kerala is 15x

$$15x \times \frac{38}{100} - 11x \times \frac{44}{100} = 430$$

$$\frac{570x - 484x}{100} = 430$$

$$86x = 43000$$

$$\frac{43000}{86}$$

$$x = 500$$

$$x = 500$$

Total number of tourist visiting Kerala = 500×15

$$= 7500$$

Let total number of tourist visiting Agra is

7x and total number of tourist visiting Goa is 11x

Total Adult female tourist visit Goa

$$= 11x \times \frac{28}{100}$$

$$= \frac{77x}{25}$$

Total number of female tourist visit Agra

$$= 7x \times \frac{32}{100}$$

$$= \frac{56x}{25}$$

Required % = $\frac{\frac{77x}{25} - \frac{56x}{25}}{\frac{56x}{25}} \times 100$

$$= \frac{21x}{56x} \times 100$$

$$= 37.5\%$$

55. (4) Let total tourist visit Kerala is 4x and total tourist visit Agra 5x

$$\frac{5x \times [100 - (32 + 28)]}{4x \times [100 - (38 + 36)]} \times 100$$

Required % = $\frac{100}{100} \times 100$

$$= \frac{5x \times 40}{4x \times 26} \times 100$$

$$= 192 \frac{4}{13}\%$$

56. (2) Let's efficiency of A is x unit/day and B's efficiency is 3x unit/day

So, B work for 19 days and A work for 18 days

ATQ—

Total work = $19 \times 3x + 18 \times x = 75x$

Efficiency of C = $\frac{75x}{50}$

$$= 1.5x \text{ unit/day}$$

(A + C) together = $\frac{75x}{(x + 1.5x)}$

$$= 30 \text{ days}$$

57. (4)

$$\text{First year Interest} = 12000 \times \frac{20}{100} = 2400 \text{ Rs.}$$

For second year —

$$(12000 + 2400 + x) \times \frac{120}{100} = 20400$$

$$6x = 102000 - (72000 + 14400)$$

$$x = \frac{15600}{6}$$

$$x = 2600 \text{ Rs.}$$

58. (5)

Let still water speed of boat A is x km/hr and B is $(16 - x)$ km/hr

ATQ—

$$\frac{30}{16-x} - \frac{30}{x+1} = 2$$

$$\frac{15-x}{15-x} - \frac{x+1}{x+1} = 2$$

$$30x + 30 - 450 + 30x = 2(15x + 15 - x^2 - x)$$

$$60x - 420 = 2(14x + 15 - x^2)$$

$$x^2 + 16x - 225 = 0$$

$$x(x + 25) - 9(x + 25) = 0$$

$$x = 9 \text{ km/hr}$$

$$\text{speed of boat B in still water} = (16 - 9) = 7 \text{ km/hr}$$

59. (1)

Capital invested by Veer and Subham in the ratio of

$$= (3x \times 4 + 5x \times 6) : (1800 \times 12)$$

$$= 42x : 21600$$

ATQ—

$$\frac{42x}{21600} = \frac{7}{9}$$

$$x = \frac{2400}{6}$$

$$x = 400$$

$$\text{value of } 5x = 400 \times 5$$

$$= 2000 \text{ Rs.}$$

60. (1)

Total amount of initial mixture

$$= 22.5 \times 8$$

$$= 180 \text{ gm}$$

Let total y gm of mixture taken

ATQ—

$$\frac{180 \times \frac{2}{5} - \frac{2y}{5}}{180 \times \frac{3}{5} - \frac{3y}{5} + 28} = \frac{1}{2}$$

$$\frac{72 - \frac{2y}{5}}{108 - \frac{3y}{5} + 28} = \frac{1}{2}$$

$$\frac{360 - 2y}{680 - 3y} = \frac{1}{2}$$

$$2(360 - 2y) = 680 - 3y$$

$$4y - 3y = 720 - 680$$

$$y = 40 \text{ gm}$$

$$\text{tin taken out} = 40 \times \frac{2}{5}$$

$$= 16 \text{ gm}$$

61. (2)

$$2^2 \times (3)^7 \times (6)^2 = (12)^2 \times 9$$

$$2^2 \times (3)^7 \times 36 = 144 \times 9$$

$$(3)^7 = \frac{144 \times 9}{4 \times 36}$$

$$(3)^7 = (3)^2$$

$$? = 2$$

62. (4)

$$\frac{12.5}{100} \times 512 + \frac{37.5}{100} \times 96 + 3 \times 7 = (?)^2$$

$$\Rightarrow \frac{1}{8} \times 512 + \frac{3}{8} \times 96 + 21 = (?)^2$$

$$\Rightarrow 64 + 36 + 21 = (?)^2$$

$$\Rightarrow (?)^2 = 121$$

$$\Rightarrow ? = 11$$

63. (3)

$$(64)^{\frac{4}{3}} \times \frac{1}{12} \times 16 + 32 \times 8 = ? \times 8$$

$$(64)^{\frac{1}{3}} \times 16 + 256 = ? \times 8$$

$$4 \times 16 + 256 = ? \times 8$$

$$64 + 256 = ? \times 8$$

$$? = 320 \times \frac{1}{8}$$

$$? = 40$$

64. (1)

$$(3375)^{\frac{1}{3}} \times \sqrt{21} + 15 \times 11 = (?)^2 + 29$$

$$15 \times \sqrt{36} \times 11 = (?)^2 + 29$$

$$(?)^2 = 15 \times 6 \times 11 - 29$$

$$(?)^2 = 990 - 29$$

$$(?)^2 = 961$$

$$(?) = 31$$

65. (5)

$$\frac{(4)^2 \times (144)^{\frac{1}{2}} \times (?)^2}{16 \times 8} = \frac{(3)^3 \times 8}{(2)^2}$$

$$\Rightarrow \frac{16 \times 12 \times (?)^2}{16 \times 8} = 27 \times 2$$

$$\Rightarrow (?)^2 = \frac{27 \times 2 \times 8}{12}$$

$$\Rightarrow (?)^2 = 36$$

$$\Rightarrow ? = 6$$

66-70.

A's flight is scheduled at 3:45pm. The flight of Spicejet is scheduled at 5:30pm. Flight of Vistara is scheduled only before one flight. So, it means that flight of Vistara is scheduled at 6:00pm.

| Timing | Person | Airlines |
|---------|--------|----------|
| 1:00 pm | | |
| 2:30 pm | | |
| 3:45 pm | A | |
| 4:15 pm | | |
| 5:30 pm | | Spicejet |
| 6:00 pm | | Vistara |
| 8:00 pm | | |

Neither Q nor X travelled from Spicejet. Only one flight is scheduled between Q and Z, who travelled from Go Air. Only two flights are scheduled between Go Air's flight and Jet Airways' flight. F travelled from Jet Airways. F's flight is not scheduled at 1:00pm. From this there can be two possible cases-

Case-1

| Timing | Person | Airlines |
|---------|--------|-------------|
| 1:00 pm | | |
| 2:30 pm | Q | |
| 3:45 pm | A | |
| 4:15 pm | Z | Go Air |
| 5:30 pm | | Spicejet |
| 6:00 pm | | Vistara |
| 8:00 pm | F | Jet Airways |

Case-2

| Timing | Person | Airlines |
|---------|--------|-------------|
| 1:00 pm | | |
| 2:30 pm | | |
| 3:45 pm | A | |
| 4:15 pm | Z | Go Air |
| 5:30 pm | | Spicejet |
| 6:00 pm | Q | Vistara |
| 8:00 pm | F | Jet Airways |

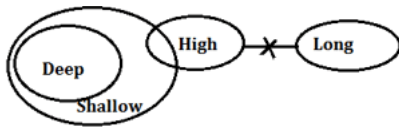
Now, X's flight is scheduled immediately after V's flight. D travelled from Air India. A did not travel from Emirates. From this case-2 will be eliminated as V's flight is scheduled at 1:00 pm and X's flight is scheduled at 2:30 in case-2 then there will be no place left for D. Now, proceeding with case-1

In case-1 X's flight is scheduled at 6:00 pm and V's flight is scheduled at 5:30 pm. Rest D's flight is flight is scheduled at 1:00pm and Q travelled from Emirates. And A travelled from Indigo. So, the final arrangement is-

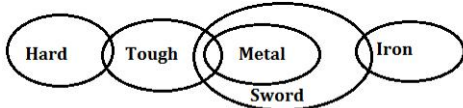
Grand Test – SPP 180759



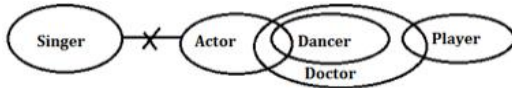
86. (5)



87. (3)

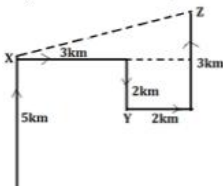


88. (4)

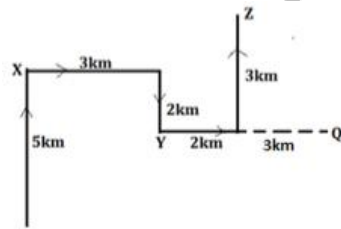


89. (4)

Required distance = $\sqrt{5^2 + 1^2} = \sqrt{26}$ km



90. (2)



91-95.

T attend school one of the day before Wednesday. Only one person attend school in between T and the one who attend St. Xavier. Only two persons attend school in between St. Xavier and Sainik school. S attend Modern school on Saturday.

| Days | Person | School |
|-----------|--------|------------|
| Monday | | Sainik/ |
| Tuesday | T | |
| Wednesday | | |
| Thursday | | St. Xavier |
| Friday | | |
| Saturday | S | Modern |
| Sunday | | Sainik/ |

Only three persons attend school in between S and the one who attend Sanskriti School. From this we get that T attends Sanskriti school on Tuesday. Now, P attend school immediately before U and does not attend St. Xavier school. So, U attends St. Xavier on Thursday and P attend the school on Wednesday.

| Days | Person | School |
|-----------|--------|------------|
| Monday | | Sainik/ |
| Tuesday | T | Sanskriti |
| Wednesday | P | |
| Thursday | U | St. Xavier |
| Friday | | |
| Saturday | S | Modern |
| Sunday | | Sainik/ |

Only one person attend school in between V and R. Neither Q nor V attend Sainik school. So, from this it is clear that R attend the Sainik school on Sunday and V attend the school on Friday. Rest Q attend the school on Monday.

| Days | Person | School |
|-----------|--------|------------|
| Monday | Q | |
| Tuesday | T | Sanskriti |
| Wednesday | P | |
| Thursday | U | St. Xavier |
| Friday | V | |
| Saturday | S | Modern |
| Sunday | R | Sainik |

The one who attend Bluebells school does not attend the school immediately after and immediately before the one who attend St. Xavier. So, Q attend Bluebells school. P does not attend DAV Public school. So, V attend the DAV school and P attend the DPS school.

| Days | Person | School |
|-----------|--------|------------|
| Monday | Q | Bluebells |
| Tuesday | T | Sanskriti |
| Wednesday | P | DPS |
| Thursday | U | St. Xavier |
| Friday | V | DAV Public |
| Saturday | S | Modern |
| Sunday | R | Sainik |

91. (3)

93. (1)

96-100.

92. (2)

94. (3)

95. (3)

- 12-T
- 11-Q
- 10-O
- 9-S
- 8-N
- 7-D
- 6-I
- 5-R
- 4-C
- 3-Y
- 2-A
- 1-K

96. (1)

Letters written against numbers 3, 5, 6, 7, 12 are—Y, R, I, D, T Word formed—DIRTY. So letter is I.

97. (5)

98. (3)

99. (4)

100. (5)

- 'Four'
- (I) $O \geq F$ (False) (II) $M > F$ (False)
- (I) $I > L$ (True) (II) $P > T$ (True)