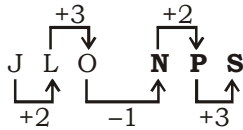
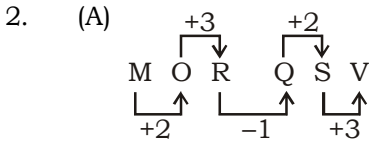


SSC MOCK TEST - 274 (SOLUTION)

1. (D) A group of lions is called a pride. A group of fish is called a shoal.



3. (C) $5 + 7 = 12 \Rightarrow 12^2 = 144$
 $1 + 4 = 5 \Rightarrow 5^3 = 125$

4. (C) The wing, fin, and rudder are all parts of an airplane.

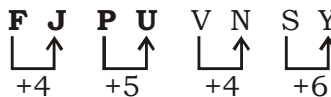
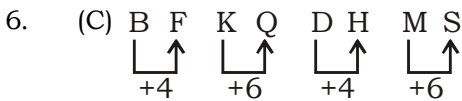
5. (B) Except 73, all are the sum of squares of continuous natural numbers.

$$3^2 + 4^2 + 5^2 = 9 + 16 + 25 = 50$$

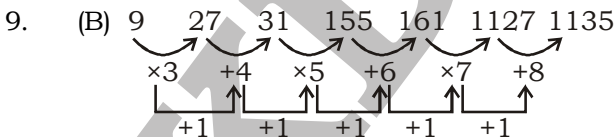
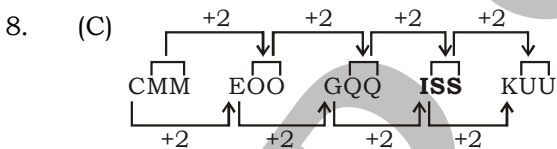
$$5^2 + 6^2 + 7^2 = 25 + 36 + 49 = 110$$

$$6^2 + 7^2 + 8^2 = 36 + 49 + 64 = 149$$

$$4^2 + 5^2 + 6^2 = 16 + 25 + 36 \neq 73$$



7. (A)



10. (B) 'The only daughter of the father of X's mother' means mother of X.

Hence X is the son of the lady in the photograph.

11. (D)

			Top face
			Opposite face

When the given figure is folded to form a cube, then the face bearing six dots will lie opposite the face bearing three dots.

12. (D) $(5 \times 6) + 2 = 32$
 $(7 \times 6) + 2 = 44$
 $(7 \times 5) + 2 = \mathbf{37}$
13. (D) $(1)^2 + (5)^2 + (4)^2 + (3)^2 = 51 \Rightarrow 51 \times 10 = 510$
 and $(3)^2 + (4)^2 + (6)^2 + (2)^2 = 65 \Rightarrow 65 \times 10 = 650$
 Similarly,
 $(0)^2 + (1)^2 + (2)^2 + (8)^2 = 69 \Rightarrow 69 \times 10 = \mathbf{690}$

14. (B)

15. (A) As,

S	E	C	T	O	R
↓-1	↓+0	↓-2	↓+0	↓-3	↓+0
R	E	A	T	L	R

Similarly,

F	L	O	W	E	R
↓-1	↓+0	↓-2	↓+0	↓-3	↓+0
E	L	M	W	B	R

16. (D)

1	2	8	48	384	3840
	×2	×4	×6	×8	×10
	↑	↑	↑	↑	
	+2	+2	+2	+2	

17. (C) The series is W/WY/WYB/WYBG/WYBGR/W/WY/WYB/WYBG.
 The letter G stands for Green.

18. (C) Using the correct symbols, we have: Given expression
 $= (3 \times 15 + 19) \div 8 - 6$
 $= (45 + 19) \div 8 - 6$
 $= 64 \div 8 - 6$
 $= 8 - 6 = \mathbf{2}$

19. (B) As, C A T

$3 \ 1 \ 20 = 3 + 1 + 20 = 24$
 $24\mathbf{3} \rightarrow$ No. of letters in CAT.

GO

$7 \ 15 = 7 + 15 = 22$
 $22\mathbf{2} \rightarrow$ No. of letters in GO.

Similarly,

C L O U D
 $3 \ 12 \ 15 \ 21 \ 4$
 $= 3 + 12 + 15 + 21 + 4 = 55$
 $55\mathbf{5} \rightarrow$ No. of letters in CLOUD.

20. (D) The final arrangement is as follows.

	Weight ↑	Height ↑
1.	C	E
2.	D	A
3.	E	C
4.	A	B
5.	B	D

So, D is the second heaviest person.

21. (B) 22. (B) 23. (B) 24. (C) 25. (C)
26. (B) Fiscal Deficit is the difference between the total income of the government (total taxes and nondebt capital receipts) and its total expenditure or a government's total expenditures exceed the revenue that it generates, excluding money from borrowings.
27. (B) Vyahula Giddha' is a popular folk dance. It is performed during marriages in the Indian state of Punjab.
28. (B) Prolactin is a hormone that is secreted by the pituitary gland in the brain which is responsible for the making milk by alveoli in breast. This hormone rises when the baby suckles the breast.
29. (A) Methyl isocyanate CH_3NCO was released during Bhopal gas tragedy. It is a colorless, odorful highly flammable liquid that evaporates quickly when exposed to the air. Methyl isocyanate is used in the production of pesticides, polyurethane foam, and plastics.
32. (B) The Khilafat Movement of 1920 was organised as a protest against the injustice done to Turkey. This movement led by the brothers Shaukat and Muhammad Ali and by Abul Kalam Azad.
33. (D) The orbit of a planet around the Sun is not a perfect circle, it is an ellipse. The Sun location is called as the Focus of ellipse.
35. (D) Non-Banking Financial institutions refer to those institutions that doesn't accept chequable deposits nor extend loans to general public. So going by this definition, Bank of India, is not an NBFC, but rather a commercial bank.
38. (D) Greenhouse gas that contribute to the greenhouse effect that is warming the Earth by absorbing the infrared radiations. Carbon Dioxide and chlorofluorocarbons are examples of greenhouse gases.
40. (B) Article 324 says -Superintendence, direction and control of elections to be vested in an Election Commission.
42. (C) Newton is the SI unit of Force. Force is any interaction which would change the motion of an object with mass.
45. (C) Comptroller and Auditor General of India is appointed by the President of India for a period of 6 years and can be removed from office in a manner and on grounds like Judge of a Supreme Court.
47. (D) The Battle of Chanderi was fought between Mughal Emperor Babur and a confederacy of Rajputs and Afghans (headed by Rana Sanga of Mewar).
49. (C) Tuberculosis (TB) is an infectious disease usually caused by the bacterium Mycobacterium tuberculosis.

51. (D)
- | | Let total capacity | Efficiency |
|-------|--------------------|----------------------------|
| A → 8 | 24 | 3 |
| B → 4 | | 6 |
| C → 6 | | -4 (as C is emptying pipe) |

Now $(A + B + C)$ 1 hr work = $(3 + 6 - 4) = 5$ unit

Required time to fill the tank by all the pipes together = $\frac{24}{5}$ hr = 4 hr 48 min

52. (A) HCF of $\frac{12}{7}, \frac{15}{16}, \frac{21}{4} = \frac{\text{HCF of } (12, 15, 21)}{\text{LCM of } (7, 16, 4)} = \frac{3}{112}$

53. (A) Let income of B = 100
A's income = 75

$$C's \text{ income} = 75 \times \frac{116}{100} = 87$$

A	B	C
75	100	87

C's income is more than A's income.

$$\therefore \text{Required more percentage} = \frac{87 - 75}{75} \times 100 = \frac{12 \times 100}{75} = 16\% \text{ more}$$

54. (B) As $(x + 3)$ is a factor of $F(x) = x^3 + 3x^2 + 2x + K$

$$F(-3) = 0$$

$$F(-3) = (-3)^3 + 3(-3)^2 + 2(-3) + K = 0$$

$$-27 + 27 - 6 + K = 0$$

$$K = 6$$

55. (B) $20W \times 16 = 16M \times 15$

$$\frac{M}{W} = \frac{20}{15}$$

$$\frac{M}{W} = \frac{4}{3} = 4 : 3$$

56. (B) $2x + \frac{2}{9x} = 4$

$$3x + \frac{1}{3x} = 6$$

Now,

$$27x^3 + \frac{1}{27x^3} = 216 - 18$$

$$27x^3 + \frac{1}{27x^3} = 198$$

57. (D) Speed of Sound = $\frac{1700}{25} = 68\text{m/s}$

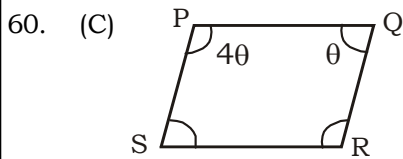
58. (B) $\frac{3000 \times 12 \times T}{100} = 1080$

$$12T = 36$$

$$T = 3 \text{ years}$$

59. (B) $\frac{3\sqrt{8} - 2\sqrt{12} + \sqrt{20}}{3\sqrt{18} - 2\sqrt{27} + \sqrt{45}} = \frac{6\sqrt{2} - 4\sqrt{3} + 2\sqrt{5}}{9\sqrt{2} - 6\sqrt{3} + 3\sqrt{5}}$

$$= \frac{2(3\sqrt{2} - 2\sqrt{3} + \sqrt{5})}{3(3\sqrt{2} - 2\sqrt{3} + \sqrt{5})} = \frac{2}{3}$$



Let $\angle Q$ be θ

Then, $\theta + 4\theta = 180^\circ$

$5\theta = 180^\circ$

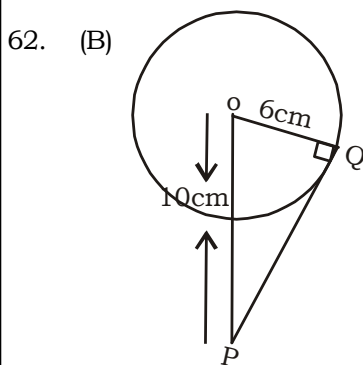
$\theta = 36^\circ$

$\angle Q = 36^\circ$

$\angle Q + \angle R = 180^\circ$ (Pairs of Adjacent angles of \parallel gm are supplement-entary)

$\angle R = 180 - 36 = 144^\circ$

61. (A) Weight of the new man = $42 + 15 \times 1.6$
 $= 42 + 24.0 = 66.0$ kg



$$PQ = \sqrt{10^2 - 6^2} = \sqrt{100 - 36}$$

$$= \sqrt{64} = 8 \text{ cm}$$

63. (C) $\frac{\cos^2 45^\circ}{\sin^2 60^\circ} + \frac{\cos^2 60^\circ}{\sin^2 45^\circ} - \frac{\tan^2 30^\circ}{\cot^2 45^\circ} - \frac{\sin^2 30^\circ}{\cot^2 30^\circ}$

$$\frac{\left(\frac{1}{\sqrt{2}}\right)^2}{\left(\frac{\sqrt{3}}{2}\right)^2} + \frac{\left(\frac{1}{2}\right)^2}{\left(\frac{1}{\sqrt{2}}\right)^2} - \frac{\left(\frac{1}{\sqrt{3}}\right)^2}{(1)^2} - \frac{\left(\frac{1}{2}\right)^2}{(\sqrt{3})^2}$$

$$\frac{1}{2} + \frac{1}{4} - \frac{1}{3} - \frac{1}{4}$$

$$\frac{2}{3} + \frac{1}{2} - \frac{1}{3} - \frac{1}{12}$$

$$\frac{8+6-4-1}{12}$$

$$\frac{14-5}{12}$$

$$\frac{9}{12} = \frac{3}{4}$$

64. (D) If equations have no solution, then,

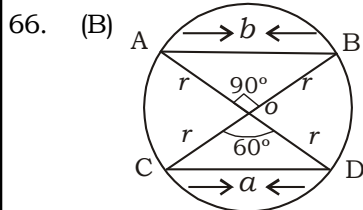
$$\frac{a_1}{a_2} = \frac{b_1}{b_2} \neq \frac{c_1}{c_2}$$

$$\frac{2}{6} = \frac{-k}{-12} \neq \frac{15}{15}$$

$$6k = 24$$

$$k = 4$$

65. (C) Required time = $\frac{4 \times \frac{165}{60}}{16.5}$ hours = $\frac{4 \times 165}{16.5 \times 60} \times 60$ mins = 40 mins



$\triangle COD$ is an equilateral triangle.

$$a = r$$

$\therefore \triangle AOB$ is an isosceles triangle.

$$\text{So, } \angle OBA = 45^\circ$$

$$\sin 45^\circ = \frac{r}{b}$$

$$\frac{1}{\sqrt{2}} = \frac{r}{b}$$

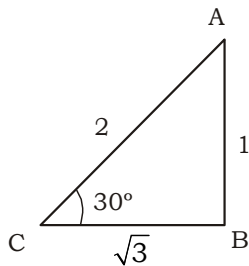
$$b = \sqrt{2} r \text{ or } \sqrt{2} a$$

67. (B) Arithmetic mean of first n natural number = $\frac{n+1}{2}$

68. (A) One side of cube = $\frac{20}{4}$ cm = 5 cm

$$\text{Area of cube} = 5^3 \text{ cm}^3 = 125 \text{ cm}^3$$

69. (C)



ATQ,

$$\sqrt{3} \text{ units} = 129$$

$$1 \text{ unit} = \frac{129}{\sqrt{3}} = 43\sqrt{3}$$

$$\therefore \text{Height of the cliff} = 43\sqrt{3}$$

70. (3) ATQ,

$$\frac{22}{7} \times (81 - r^2) \times 14 = 748$$

$$(81 - r^2) \times 4 = 68$$

$$81 - r^2 = 17$$

$$r^2 = 81 - 17$$

$$r^2 = 8$$

$$\therefore \text{Thickness} = 9 - 8 = 1 \text{ cm}$$

71. (C) $\tan \theta = \frac{8}{15}$

$$\sin \theta = \frac{8}{\sqrt{15^2 + 8^2}} = \frac{8}{17}$$

$$\therefore \frac{\sqrt{1 - \sin \theta}}{\sqrt{1 + \sin \theta}} = \frac{\sqrt{1 - \frac{8}{17}}}{\sqrt{1 + \frac{8}{17}}} = \sqrt{\frac{9}{25}} = \frac{3}{5}$$

72. (B) Difference = $540 - 120 = 420$

73. (C) Average production = $\frac{1800}{6} = 300$

74. (C) Required ratio = $1160 : 640 = 29 : 16$

75. (B) Required number of fans = $400 - 300 = 100$

MEANINGS IN ALPHABETICAL ORDER

Obsolete	No longer produced or used; out of date; Archaic	अप्रचलित, पुराना
Liberate	to free	मुक्त करना
Fallacy	a mistaken belief, especially one based on unsound arguments	भ्रान्ति
Replica	an exact copy or model of something	प्रतिरूप
Daunt	make (someone) feel intimidated or apprehensive	हतोत्साह करना, डराना
Ornate	elaborately or highly decorated	सुशोभित
Anonymous	(of a person) not identified by name; of unknown name	गुमनाम
Biography	an account of someone's life written by someone else	जीवनी
Demagogue	a leader who makes false claims and promises in order to gain power	जनोत्तेजक नेता
Tyrant	a cruel and oppressive ruler	निरंकुश शासक
Obituary	a notice of a death, especially in a newspaper typically including a brief biography of the deceased person	शोक समाचार
Plagiarism	the practice of taking someone else's work or ideas and passing them off as one's own	साहित्यिक चोरी
Conspicuous	attracting notice or attention	विशिष्ट
Conjuror	a performer of clever tricks that seem magic	करतब दिखाने वाला
Voluntary	done, given, or acting of one's own free will	स्वैच्छिक
Homage	special honour or respect shown publicly	श्रद्धांजलि

SSC MOCK TEST - 274 (ANSWER KEY)

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

76. (A) If two articles are used before two ordinals, the noun following must be singular. Change 'episodes' into 'episode'.
77. (C) Change 'some' into 'somewhat' before 'angry'.
84. (C) 'Get away' means 'to escape'. 'Get away' is followed by 'with'.
85. (C) 'A big draw' means 'a big source of attraction'.
86. (A) Verb 'avoid' takes Gerund after it. Use 'avoid going to...'
87. (B) 'Break into' means 'to enter by force.'
90. (B) The correct spelling of 'Demagogue' is Demagogue, 'Homege' is 'Homage' and 'Obitury' is 'Obituary'.
91. (C) The correct spelling of 'Plegiarism' is 'Plagiarism', 'Conspicous' is 'Conspicuous' and 'Voluntery' is 'Voluntary'.