

**SSC MOCK TEST - 271 (SOLUTION)**

1. (C) Cream is the product of milk. In the same way Pottery is the product of clay.
2. (C)  $09 : 72 :: 06 : 42$   
 $\begin{array}{ccc} \boxed{+} & & \boxed{+} \\ \uparrow & & \uparrow \\ 7+2 & & 4+2 \end{array}$
3. (B)  $D : 25 :: F : 49$   
 $\begin{array}{ccc} \downarrow & & \downarrow \\ (4+1)^2 & & (6+1)^2 \end{array}$
4. (B) All others have two vowels except (B)
5. (D) The sum of all others is 27, except option (D).
6. (D)
7. (A) 2. Omit  $\rightarrow$  1. Omnipotent  $\rightarrow$  3. Omniscient  $\rightarrow$  4. Omnivorous
8. (B)

A	M	D	N	G	M	J	N	M	M	P	N	S	M	V	N
1	13	4	14	7	13	10	14	13	13	16	14	19	13	22	14
	+3		+3		+3		+3		+3		+3		+3		+3
9. (A)  $2 \quad 4 \quad 8 \quad 16 \quad 32$   
 $\begin{array}{ccccc} \boxed{\times 2} & \boxed{\times 2} & \boxed{\times 2} & \boxed{\times 2} & \boxed{\times 2} \end{array}$
10. (B)

H	O	U	R
↕	↕	↕	↕
S	L	F	I

Reverse place rank letter
11. (C)

B	R	I	D	G	E	F	R	U	I	T
+3	+3	+3	+3	+3	+3	+3	+3	+3	+3	+3
↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
F	U	L	G	J	H	I	U	X	L	W
12. (A)  $13 + 7 \times 2 = 27$   
 $54 + 45 \times 2 = 144$   
 Then,  $? + 32 \times 2 = 68$   
 $\Rightarrow ? = 68 - 64 = 4$
13. (B)  $3 \times 100 + 5 \times 9 = 345$   
 $4 \times 100 + 6 \times 10 = 460$   
 So,  $5 \times 100 + 7 \times 11 = 577$
14. (B) Clearly we can observe that nine days ago, it was Thursday. Therefore today is Saturday.
15. (A) Clearly, the number of ways to arrange 5 books =  $5! = 5 \times 4 \times 3 \times 2 \times 1 = 120$   
 So, Total time taken = 120 minutes = 2 hours.
16. (B)

Word	W	I	N	T	E	R	S	U	M	M	E	R	A	U	T	U	M	N
Position	23	9	14	20	5	18	19	21	13	13	5	18	1	21	20	21	13	14
	+2	+3	+4	+5	+6	+2	+3	+4	+5	+6	+2	+3	+4	+5	+6	+2	+3	+4
Given detail	23	11	17	24	10	24	19	23	16	17	10	24	1	23	23	25	18	20

17. (A) Let the marks in Geography be G and History be H.

$$\text{Eq 1: } G + H = 160$$

$$\text{Eq 2: } G/3 = H/2$$

By the problem:

$$G = 160 - H$$

Therefore, on putting the value of G in Eq 2:

$$(160 - H)/3 = H/2$$

$$320 - 2H = 3H$$

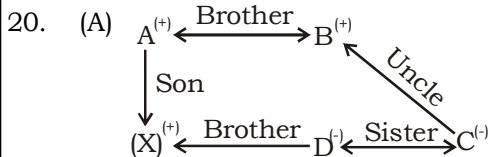
$$3H + 2H = 320$$

$$5H = 320$$

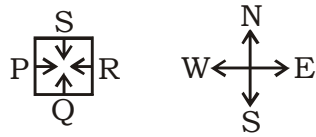
$$H = 64$$

18. (B)

19. (D) TABULATION



21. (D)



Q is facing North.

22. (C)  $36 + 4 - 3 \times 4 = 23$

After change all the signs

$$36 \div 4 \times 3 - 4 = 23$$

$$9 \times 3 - 4 = 23$$

$$27 - 4 = 23$$

$$23 = 23$$

23. (C)      24. (B)      25. (D)

26. (B) An inferior good is a type of good whose demand decreases when income of consumer increases or vice versa. In other words, we can say that the demand of an inferior good is inversely related to consumer's income

27. (A) The maximum strength of the Bangladeshi Parliament is 350. Out of 350, 50 seats are reserved for women which are apportioned on elected party position in the parliament.

28. (B) Haemoglobin is an important component of red blood cells. It consists of amino acids and iron due to which it is red in colour. Hemoglobin in the blood carries oxygen from the lungs to the rest of the body helping in aerobic respiration and metabolism. Deficiency in haemoglobin may cause diseases like anaemia.

29. (A) Phenol is also known as carbolic acid and is a corrosive poisonous crystalline acidic compound. It is obtained from coal tar and wood, and under dilute form is used as a disinfectant.

30. (B) Venus is also known as Earth's twin because both planets share a similar size, mass and surface composition.

31. (B) Anti-defection law is mentioned under 10th schedule of the Indian Constitution and was a 52nd amendment. This law ensured to check the opportunism of the legislatures and aimed to give stability to the parliamentary form of government.
33. (C) In glass, there is no flow of free electrons and hence it doesn't conduct heat but it is a good insulator which allows electricity and heat to pass through it by radiation following the law of optics.
34. (B) Vaishali was not among the 16 janpadas present during 7th century B.C.
35. (D) The former Maldivian Attorney-General, Fathimath Dhiyana Saeed, was First female secretary general of SAARC.
36. (B) Sirimavo Bandaranaike was a Sri Lankan stateswoman. She became the world's first non-hereditary female head of government in modern history.
37. (C) Mirage occurs due to total internal reflection of light. When the sun is high in the sky, the sand gets heated first and then the layers of air above it. The rays from the trees travel from an optically denser air layer to a rarer layer and hence bend away from the normal.
40. (D) Jat and Sawar are ranks in Mansabdari system, prevalent in Mughal time especially efficient in Akbar's reign.
41. (A) The acid found in apples is known as malic acid. Malic acid and it is also found in grapes and rhubarb.
43. (C) Soyabean is one of the richest source of protein.
44. (A) Speed of light is maximum in vacuum. The speed of light changes with change in media and depends upon its refractive index. It is the measurement of how often light is slowed down by interacting with matter it passes through and value with 1 means least obstructions.
46. (C) The Qutub Minar was named after the Sufi saint Khawaja Qutubuddin Bakhtiyar Kaki.
47. (C) Rusting is a redox reaction where oxidation and reduction takes place simultaneously.
48. (A) Vidarbha won the Ranji Trophy final 2017. The final took place between Vidarbha and Saurashtra, starting on 3 February 2019. Vidarbha defeated Saurashtra by 78 runs in the final, to become the sixth team in the tournament's history to retain their title.
49. (D) 2 members to be nominated by the President from the Anglo-Indian Community. Maximum strength of Lok Sabha is 552 and presently its strength is 545. The Anglo Indian members are nominated if, in President's opinion, that community is not adequately represented in the House.

51. (A) Let the second discount be  $x\%$

$$550.80 = 720 \times \frac{100-10}{100} \times \frac{100-x}{100}$$

$$550.80 = 720 \times \frac{90}{100} \times \frac{100-x}{100}$$

$$100 - x = \frac{550.80 \times 100}{72 \times 9}$$

$$100 - x = 85$$

$$x = 15\%$$

52. (C) Let the sides of the triangle be  $3x$ ,  $4x$  and  $5x$ .

Since, it is a right angle triangle.

$$\therefore \frac{1}{2} \times 3x + 4x = 7776$$

$$x^2 = \frac{7776}{6} = 1296$$

$$x = 36$$

$$\text{Perimeter of triangle} = 3x + 4x + 5x = 12x$$

$$= 12 \times 36 = 432\text{cm}$$

53. (B)  $\sin \theta + \sin^2 \theta = 1$

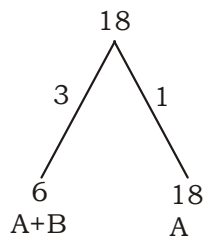
$$\sin \theta = 1 - \sin^2 \theta = \cos^2 \theta \quad \text{---(i)}$$

$$\cos^2 \theta + \cos^4 \theta$$

$$\sin \theta + (\sin)^2$$

$$\sin \theta + \sin^2 \theta = 1 \text{ (given)}$$

54. (B)



$$B = \frac{18}{3-1} = \frac{18}{2} = 9 \text{ days}$$

55. (C)  $5\% \Rightarrow \frac{5}{100} = \frac{1}{20}$

$$20 \rightarrow 21$$

$$20 \rightarrow 21$$

$$\underline{20} \rightarrow \underline{21}$$

$$\xrightarrow{\times 1} 800 \quad 9261 \quad \xrightarrow{\times 1} 9261$$

56. (A) Maximum value of  $\sin^4 \theta + \cos^4 \theta = 1$

57. (A) Let the farmer travelled on foot for 't' hours.

$$4t + (9 - t) \times 9 = 61$$

$$4t + 81 - 9t = 61$$

$$5t = 20$$

$$t = 4 \text{ hours}$$

So, the distance covered by the farmer =  $4 \times 4 = 16 \text{ km}$ .

58. (B) Let the percent age of A and B be  $5x$  and  $7x$  years respectively.

ATQ,

$$\frac{5x - 18}{7x - 18} = \frac{8}{13}$$

$$65x - 234 = 56x - 144$$

$$9x = 90$$

$$x = 10$$

So, percent age of A =  $5x$

$$= 5 \times 10 = 50 \text{ years}$$

59. (B)  $2 + x\sqrt{3} = \frac{1}{2 + \sqrt{3}} \times \left( \frac{2 - \sqrt{3}}{2 - \sqrt{3}} \right)$

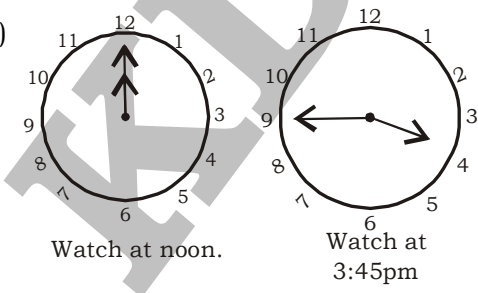
$$2 + x\sqrt{3} = \frac{(2 - \sqrt{3})}{2^2 - (\sqrt{3})^2}$$

$$2 + x\sqrt{3} = \frac{2 - \sqrt{3}}{4 - 3} = \frac{2 - \sqrt{3}}{1}$$

$$2 + x\sqrt{3} = 2 - \sqrt{3}$$

$$\text{So, } x = -1$$

60. (A)  $m^3 - 3m^2 + 3m + 3n + 3n^2 + n^3$   
 $= m^3 + 3(n^2 - m^2 + m + n) + n^3$   
 $= (-4)^3 + 3[(-2)^2 - (-4)^2 + (-4) + (-2)] + (-2)^3$   
 $= (-64) + 3[(+4) - (+16) - 4 - 2] + (-8)$   
 $= (-64) + 3[4 - 16 - 6] + (-8)$   
 $= (-64) + 3[-18] + (-8)$   
 $= -64 - 54 - 8 = -126$

61. (D)
- 
- Watch at noon.                      Watch at 3:45pm

$$\text{So, required angle} = 90^\circ + \frac{45}{60} \times 30^\circ$$

$$= 90^\circ + 22\frac{1}{2} = 112\frac{1}{2}$$

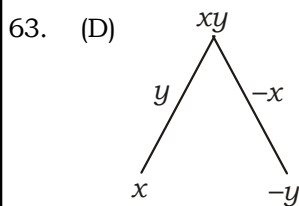
62. (B)  $x^3 + y^3 + z^3 - 3xyz = \frac{1}{2} (x + y + z) [(x - y)^2 + (y - z)^2 + (z - x)^2]$

$$= \frac{1}{2} (332 + 333 + 335) [(332 - 333)^2 + (333 - 335)^2 + (335 - 332)^2]$$

$$= \frac{1}{2} \times 1000 [(-1)^2 + (-2)^2 + (3)^2]$$

$$= \frac{1}{2} \times 1000 [1 + 4 + 9]$$

$$= 500 \times 14 = 7000$$



Required time =  $\frac{xy}{y-x}$

64. (D) From option,  
Let first number be 6, second be 10, third be 14 and fourth be 18.  
ATQ,  
 $6 + 5 = 10 + 1 = 14 - 3 = 18 - 7 = 11$   
So, all are equal

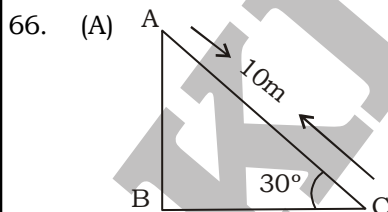
65. (B) Quantity of milk =  $729 \times \frac{7}{9} = 567$  ml & Water = 162 ml

Let  $x$  ml water be added.  
ATQ,

$$\frac{567}{162 + x} = \frac{7}{3}$$

$$162 + x = 243$$

$$x = 81 \text{ ml}$$



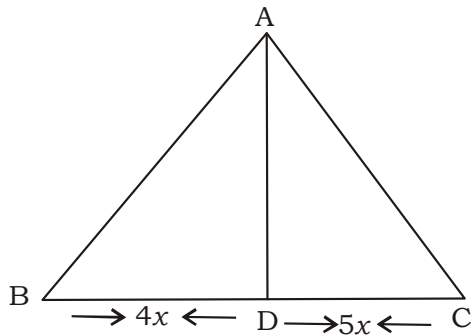
$\therefore$  Required distance is BC.

$$\cos 30^\circ = \frac{BC}{AC}$$

$$\frac{\sqrt{3}}{2} = \frac{BC}{10}$$

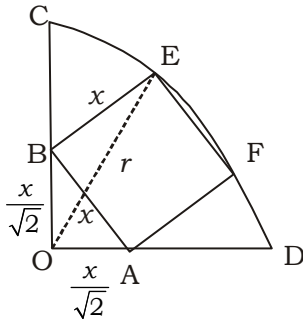
$$BC = 8.66 \text{ m}$$

67. (B)



$$\text{Area of } \triangle ADC = \left(\frac{5}{4} \times 60\right) = 75 \text{ sq. cm}$$

68. (D)



Radius = OE

$$OB = OA = \frac{x}{\sqrt{2}}$$

$$\angle EBO = 90^\circ + 45^\circ$$

$$\cos \angle EBO = \cos (90 + 45^\circ)$$

$$\cos (90 + 45^\circ) = \frac{BE^2 + OB^2 - OE^2}{2 \times BE \times OB}$$

$$-\sin 45^\circ = \frac{x^2 + \left(\frac{x}{\sqrt{2}}\right)^2 - OE^2}{2 \times x \times \frac{x}{\sqrt{2}}}$$

$$-\frac{1}{\sqrt{2}} = \frac{x^2 + \frac{x^2}{2} - OE^2}{\sqrt{2} \times x^2}$$

$$OE^2 = \frac{5x}{2}$$

$$OE = \sqrt{\frac{5}{2}} x$$

69. (B) Total C.P of the rice =  $30 \times 70 + 20 \times 70.75$   
 $= 2100 + 1415 = ₹ 3515$

Total S.P of rice =  $50 \times 80.50 = ₹ 4025$

So, profit =  $4025 - 3515 = ₹ 510$

70. (A)  $\tan 4^\circ \cdot \tan 43^\circ \cdot \tan 47^\circ \cdot \tan 86^\circ$   
 $\tan(90^\circ - 86^\circ) \cdot \tan(90^\circ - 47^\circ) \cdot \tan 47^\circ \cdot \tan 86^\circ$   
 $\cot 86^\circ \cdot \cot 47^\circ \cdot \tan 47^\circ \cdot \tan 86^\circ = 1$

71. (A)  $x \cos \theta - \sin \theta = 1$

Let  $\theta = 0^\circ$

$x \cos 0^\circ - \sin 0^\circ = 1$

$x \times 1 - 0 = 1$

$x = 1$  .....(i)

$x^2 + (1 + x^2) \sin \theta = x^2 + (1 + x^2) \sin 0^\circ$

$= x^2 + (1 + x^2) \times 0$

$= x^2 = (1)^2 = 1$

72. (B) Required number  $\frac{61.2}{360} \times 48600 + \frac{28.8}{360} \times 62500 = 862500$   
 $= 8262 + 5000 = 13262$

73. (D)  $M_{2008} = \frac{64.8}{360} \times 48600 = 8748$

$M_{2009} = \frac{54}{360} \times 62500 = 9375$

$\therefore$  Required% =  $\left( \frac{8748}{9375} \times 100 \right) \% = 93.312\% \approx 93\%$

74. (C) Required ratio =  $48600 \times \frac{72}{360} : 62500 \times \frac{86.4}{360}$   
 $= 9720 : 15000 = 81 : 125$

75. (D) Required number =  $48600 \times \left( \frac{61.2 + 64.8 + 61.2}{360} \right) + 62500 \times \left( \frac{64.8 + 54 + 28.8}{360} \right)$   
 $= 25272 + 25625 = 50897$



## MEANINGS IN ALPHABETICAL ORDER

Anticipate	regard as probable; expect or predict	आशा
Bacchanal	an occasion of wild and drunken revelry	भदचलन
Boisterous	(of a person, event, or behavior) noisy, energetic, and cheerful; rowdy	प्रचण्ड
Coalesce	come together to form one mass or whole	सम्मिलित
Dandy	a man unduly devoted to style, neatness, and fashion in dress and appearance	अलबेला
Debauch	destroy or debase the moral purity of; corrupt	भ्रष्टाचार
Dexterity	skill in performing tasks, especially with the hands	निपुणता
Dim	(of a light, color, or illuminated object) not shining brightly or clearly	धुंधला
Emanates	(of something abstract but perceptible) issue or spread out from (a source)	उत्पन्न
Eschew	deliberately avoid using; abstain from	त्याग करना
Flit	move swiftly and lightly	उड़ जाना
Gloom	partial or total darkness	उदासी
Knack	an acquired or natural skill at performing a task	आदत
Nifty	particularly good, skillful, or effective	प्रशस्त
Obnoxious	extremely unpleasant	अप्रिय
Repudiate	refuse to accept or be associated with	परित्याग करना
Revel	enjoy oneself in a lively and noisy way, especially with drinking and dancing	आनंद लेना
Scorn	the feeling or belief that someone or something is worthless or despicable; contempt	घिन आना
Solemn	formal and dignified	गंभीर
Spree	a spell or sustained period of unrestrained activity of a particular kind	मौज-मस्ती
Subdued	(of a person or their manner) quiet and rather reflective or depressed	वशीभूत
Weird	suggesting something supernatural; uncanny	अजीब
Whisk	take or move (someone or something) in a particular direction suddenly and quickly	धीरे

**SSC MOCK TEST - 271 (ANSWER KEY)**

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

76. (A) Replace 'deliberately' by 'deliberate'.

77. (A) Replace 'based' by 'having'.

90. (A) The correct spelling of 'Emanates' is 'Emanates', 'Insisted' is 'Insisted' and 'Coalesce' is 'Coalesce'.

91. (A) The correct spelling of 'Cordonned' is 'Cordoned', 'Binommial' is 'Binomial' and 'Fontannel' is 'Fontanel'.