

**SSC MOCK TEST – 77 (SOLUTION)**

1. (A)  $8 \square 8^2 = 64 \square 6 + 4 = 10$   
 $9 \square 9^2 = 81 \square 8 + 1 = 9$
2. (C) Monday is a day and Taurus is a **Zodiac**.
3. (D) The next vowel to A is E and the next vowel to O is **U**.
4. (C) Except **Venus**, rest of the planets rotates in the same direction.
5. (C)  $125 = 5^3$ ,  $216 = 6^3$ ,  $343 = 7^3$ , (**256 = 16^2**) which is different from others.
6. (A) **Bat** is the only mammal in the given group.
7. (D)
 

So, P is in **South-West** of Y.
8. (B)
9. (D)  $S > T$     $W > V$     $T > W$   
So we have  $S > T > W > W > V$   
So, **V** is the lightest bag.
10. (C)  $(5c4)A$     $(2B3)B6$   
 $= (5 \times 4) - (2 + 3) + 6$   
 $= 20 - 5 + 6 = \mathbf{21}$
11. (B)
12. (C)  $(5 \times 4) + (1 + 3) = 23$   
 $(7 \times 6) + (3 \times 4) = 54$   
 $(11 \times 2) + (2 \times 9) = 40$
13. (D)
14. (A)  $ab \underline{c} b / abc \underline{b} / ab \underline{c} b / \underline{a} bcb / \underline{a} b$
15. (A)
 
  - I. ✓
  - II. ✗
  - III. ✗
  - IV. ✗
16. (C) Word 'R' of **secret** is not present in 'ADOLESCENT'.
17. (B)  $1 + (4 \times 2) = 9$   
 $2 + (8 \times 2) = 18$   
 $3 + (6 \times 2) = 15$   
 $7 + (8 \times 2) = \mathbf{23}$

18. (B)  $6 \times 2 \times 3 \times 5 = 180 \square \frac{180}{20} = 9$   
 $3 \times 5 \times 6 \times 4 = 360 \square \frac{360}{20} = 18$   
 $4 \times 9 \times 3 \times 5 = 540 \square \frac{540}{20} = 27$   
 $2 \times 7 \times 4 \times 5 = 280 \square \frac{280}{20} = \mathbf{14}$
19. (B)  $5 \times 7 \times \sqrt{9} = 35 \times 3 = 105$   
 $7 \times 11 \times \sqrt{9} = 77 \times 3 = 231$   
 $11 \times 13 \times \sqrt{9} = 143 \times 3 = \mathbf{429}$
20. (C)
 

|                  |             |
|------------------|-------------|
| A N C I E N T    | N A T U R E |
| 2 5 1 6 8 5 9    | 5 2 9 0 4 8 |
| then T R A I N   |             |
| <b>9 4 2 6 5</b> |             |
21. (B) The number which shows hardworking people who are intelligent, but not sincere is **2**.
22. (C)  $13 \times 5 + 5 = 15 \times 5 - 5$
23. (A) Given  $2 \times 3 + 6 - 12 \div 4 = 17$   
After interchanging the sides  
 $2 + 3 \times 6 - 12 \div 4$   
 $= 2 + 18 - 3 = 17 = \text{R.H.S}$
24. (D)

The photograph is of X's mother. But the gender X is not decided, so X can either be son or daughter of the person in photograph.

25. (D) 11, 65, 12, 20, 56
26. (A) 9-time Olympic gold medallist, Usain Bolt from Jamaica has won the International Association of Athletics Federations (IAAF) male Athlete of the Year award for a record sixth time. Beside him, Ethiopia's Almaz Ayana, who broke the 10,000m world record by over 14 seconds in winning Olympic gold in 2016 Rio Olympics, won the 2016 IAAF female Athlete of the Year award. The awards were handed out by IAAF at a gala ceremony in Monaco.

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|--|--|
| <p>27. (B) The Indian Council of Medical Research (ICMR) is the apex body in India for the formulation, coordination and promotion of biomedical research. It is in news because ICMR has recently signed a MoU with Indian Council of Agricultural Research (ICAR) for cooperation in the area of Zoonoses, anti-microbial resistance, nutrition and pesticide residues. This MoU will strengthen the ties between the two organizations and energize environment of mutual cooperation and collaboration. The headquarters of ICMR is located in New Delhi.</p> <p>28. (A) Ninth Schedule was added by First Amendment Act of 1951, which relates to Land Reforms.</p> <p>29. (A) Project Elephant was launched in 1992 by the Government of India Ministry of Environment and Forests to provide financial and technical support of wildlife management efforts by states for their free ranging populations of wild Asian Elephants.</p> <p>30. (C) Phulel Singh Sujlana, the former international hockey umpire and veteran administrator, has recently passed away, according to Mumbai Hockey Association Limited. Sujlana was the chairman of the Indian Hockey Federation (IHF) Umpires Board from 1985 to 1993 and chairman of its Technical Committee in 1985.</p> <p>31. (B) Nagara, Dravida and Vesara are three main styles of Indian temple architecture.</p> <p>32. (A) India's first and Asia's longest cycle highway has been opened in Uttar Pradesh. The 207-km-long cycle highway runs between Etawah and Agra. It was inaugurated by state Chief Minister Akhilesh Yadav. It is about 7-feet-wide and is separated by a divider from main highway which ensures the safety of cyclists.</p> <p>33. (C) Mahatma Gandhi undertook fast unto death in 1932, against Ramsay Macdonald's Announcement of the Communal Award.</p> <p>34. (C) The National Pollution Control Day (NPCD) is celebrated every year on December 2 in India with an aim to make aware the people and industries about the need of Pollution Control Acts. This day is observed in the memory of those who lost their lives in 1984 due to the Bhopal gas tragedy and who was left severely affected due to leakage of poisonous gas "Methyl Isocyanate (MIC)" from Union Carbide plant in Bhopal. This catastrophe was the worst in the world's industrial history and people there still continue to witness physical and mental disabilities.</p> | <p>35. (D) O. Schmidt in 1943 gave Inter-Stellar Dust Hypothesis for the origin of the earth and solar system.</p> <p>37. (B) The Palk Strait separates India and Srilanka. It lies between the Gulf of Mannar and the Bay of Bengal.</p> <p>38. (C) Rakesh Asthana, the 1984 batch IPS officer of Gujarat-cadre, has been appointed as the interim Director of the Central Bureau of Investigation (CBI). He succeeded Anil Kumar Sinha. It is the first time in last 10 years that no new CBI chief has been named to succeed the current chief. The CBI chief is selected through a collegium comprising the Prime Minister, the Leader of Opposition or largest party in opposition in Lok Sabha and the Chief Justice of India. The collegium has not been able to meet.</p> <p>39. (D) Survey of India, The National Survey and Mapping Organization of the country under the Department of Science and Technology, is the oldest scientific department of the Govt. of India. It was set up in 1767.</p> <p>41. (D) PN Bhagwati was CJI during July 1985-Dec 1986. During his tenure as CJI, PIL was introduced to the Indian judicial system.</p> <p>43. (D) Through Corbett National Park Ramganga flows (not Ganga) which is a tributary of Ganges. Through Silent Valley National Park River Bhavani flows which is a tributary of Kaveri. Kaziranga and Manas are both national parks.</p> <p>49. (B) In financial accounting, a balance sheet or statement of financial position is a summary of the financial status of an organisation which can be a sole proprietorship, a business partnership or a company. Assets, liabilities and ownership of equity are listed as on a specific date, which is normally the end of the financial year. A balance sheet is the "snapshot of a company's financial condition".</p> <p>51. (B) Volume of hemispherical cup = <math>\frac{2}{3} \times 4\sqrt{2}r^3</math></p> $= \frac{2}{3} \times 4\sqrt{2} \times (4)^3 = \frac{128}{3} p \text{ cm}^3$ <p>Volume of cone = <math>\frac{1}{3} \times 8 \times 8 \times 16 \times 4\sqrt{2}</math></p> $= \frac{1024}{3} p \text{ cm}^3$ <p>% part of empty = <math>\frac{\frac{1024}{3} p - \frac{128}{3} p}{\frac{1024}{3} p} \times 100</math></p> $= 87.5\%$ |
|--|--|

52. (C)  $(x^2 - 1), (x^2 + 1), 2x$

Put  $x = 1, 2, 3$

Let = 2

= 3, 5, 4 Right Triangle

53. (B) CP : MP      P : d  
          2 : 3        3x : 2x

$$\frac{2(100 + 3x)}{100} = \frac{3(100 - 2x)}{100} \quad \because (SP = SP)$$

$$200 + 6x = 300 - 6x$$

$$x = \frac{25}{3} \%$$

$$\text{Discount \%} = \frac{50}{3} \% = 16.66\%$$

54. (A)  $\frac{12}{3 + \sqrt{15} + 2\sqrt{2}} \times \frac{3 + \sqrt{5} - 2\sqrt{2}}{3\sqrt{5} - 2\sqrt{2}}$

$$= \frac{12(3 + \sqrt{5} - 2\sqrt{2})}{(3 + \sqrt{5})^2 - (2\sqrt{2})^2} = \frac{12(3 + \sqrt{5} - 2\sqrt{2})}{9 + 5 + 6\sqrt{5} - 8}$$

$$= \frac{2(3 + \sqrt{5} - 2\sqrt{2})}{(\sqrt{5} + 1)}$$

Again,

$$= \frac{2(3 + \sqrt{5} - 2\sqrt{2})}{\sqrt{5} + 1} \times \frac{(\sqrt{5} - 1)}{(\sqrt{5} - 1)}$$

$$= \frac{2(3\sqrt{5} + 5 - 2\sqrt{10} - 3 - \sqrt{5} + 2\sqrt{2})}{4}$$

$$= \sqrt{5} + \sqrt{2} - \sqrt{10} + 1$$

55. (C) Pankaj : Suraj  
Efficiency 5 : 4  
Time 4 : 5

5 unit = 6

$$4 = \frac{6}{5} \times 4 = \frac{24}{5} \text{ days}$$

56. (D)  $(8)^2 = \sqrt{d^2 - (r_1 + r_2)^2}$

$$64 = d^2 - 100$$

$$164 = d^2$$

$$d = 2\sqrt{41} \text{ cm}$$

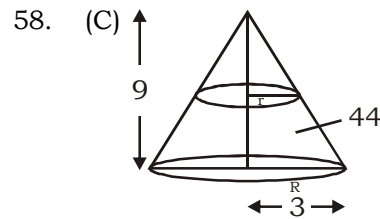
57. (D)  $(80 - x) = (96 - 3x)$

$$2x = 16$$

$$x = 8$$

$$CP = 80 - 8 = 72$$

$$P\% = \frac{18}{72} \times 100 = 25\%$$



$$\text{Volume of cone} = \frac{1}{3} \times 4\sqrt{12} \times (3)^2 \times 9 = 274\sqrt{12}$$

$$h = 3r$$

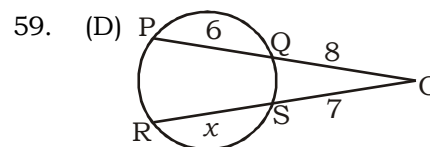
$$(\because 44 = 144\sqrt{12})$$

$$\text{Volume of upper part} = 274\sqrt{12} - 144\sqrt{12} = 134\sqrt{12}$$

$$= \frac{1}{3} 4\sqrt{12} r^2 \times h = 134\sqrt{12}$$

$$= \frac{1}{3} \times 4\sqrt{12} \times r^2 \times 3r = 134\sqrt{12}$$

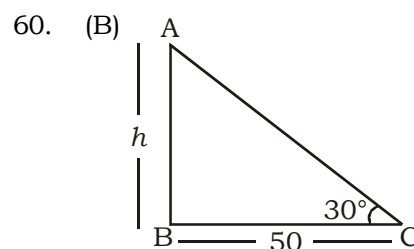
$$r = \sqrt[3]{13} \text{ cm}$$



$$OP \times OQ = OR \times OS$$

$$14 \times 8 = (x + 7) \times 7$$

$$x = 9 \text{ cm}$$



$$\tan 30^\circ = \frac{h}{50}$$

$$\frac{1}{\sqrt{3}} = \frac{h}{50}$$

$$h = \frac{50}{\sqrt{3}} \text{ m}$$

61. (C)  $\frac{3}{2}$  year R = 10%

3 year R = 10% (Half yearly)

Simple interest = 5 + 5 + 5 = 15%

$$\text{Compound interest} = 5 + 5 + \frac{5 \times 5}{100} = 10.25\%$$

$$10.25 + 5 + \frac{10.25 \times 5}{100} = 15.7625\%$$

Difference = 0.7625% \_\_\_\_\_ 244

$$100\% \text{ _____ } \frac{244}{0.7625} \times 100$$

= ₹ 32000

62. (D) 5 E 9

2 F 8

3 G 7

1114

Total = 1114

F = 9, E = 0, G = 0

63. (A)  $4a - \frac{4}{a} + 3 = 0$

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

Both side cube

$$a^3 - \frac{1}{a^3} - 3 \times \frac{-3}{4} = \frac{-27}{64}$$

$$a^3 - \frac{1}{a^3} = \frac{-27}{64} - \frac{9}{4}$$

Add 3 on both sides

$$a^3 - \frac{1}{a^3} + 3 = \frac{-27}{64} - \frac{9}{4} + 3 = \frac{21}{64}$$

64. (B)  $\frac{B}{A} = \sqrt{\frac{36}{16}}$

$$\frac{B}{A} = \frac{3}{2} = 3 : 2$$

65. (C)  $7\frac{1}{2}$  min \_\_\_\_\_ 1 km

$$= \frac{15}{2} \times 60 = 8 \text{ km/h}$$

$$\text{Speed of boat} = \frac{1}{2}(8 + 5) = 6\frac{1}{2} \text{ km/h}$$

66. (B) Ratio of income = 5 : 6

Exp. = 3 : 4

$$5x - 3y = 1800$$

$$6x - 4y = 1600$$

...(i)

...(ii)

From equ. (i) and (ii)

$$x = 1200$$

$$y = 1400$$

$$\text{Income of Apurva} = 1200 \times 6 = ₹ 7200$$

67. (D) Milk Water

$$7 : 1$$

$$\text{Milk} = 35$$

$$\text{Water} = 5$$

$$\frac{5+x}{35} = \frac{1}{3}$$

$$x = 6\frac{2}{3} \text{ litres}$$

68. (\*) Consecutive number

$$\frac{(x-3) + (x-2) + (x-1) + x + (x+1) + (x+2) + (x+3)}{7}$$

$$= 20$$

$$7x = 140$$

$$x = 20$$

$$\text{Largest number} = 23$$

69. (B)  $\frac{5x+2}{6x+2} = \frac{7}{8}$

$$40x + 16 = 42x + 14$$

$$x = 1$$

$$\text{Then Present age} = 5 \text{ and } 6 \text{ years}$$

$$\text{After 12 year} = 17 : 18$$

70. (D)  $\sin(639 + 30^\circ) = \frac{3}{\sqrt{12}} \times \frac{\sqrt{12}}{\sqrt{12}}$

$$\sin(639 + 30^\circ) = \frac{\sqrt{3}}{2}$$

$$\sin(639 + 30^\circ) = \sin 60^\circ$$

$$639 = 30^\circ$$

$$\cos^2 30^\circ = \frac{\frac{\sqrt{3}}{2} \cdot \frac{\sqrt{3}}{2}}{\frac{1}{2}} = \frac{3}{4}$$

71. (B) Spider climbed the height in 1 hrs

$$= 62\frac{1}{2}\% = \frac{125}{80}$$

$$\text{Next hours it covered} = \frac{1}{8}$$

$$\frac{5}{8} \quad \frac{1}{8}$$

Assume height = 64

$$64 \times \frac{5}{8} = 40 \text{ in 1 hours}$$

$$\text{Left} = 24 \text{ m}$$

$$\text{Next hour} = \frac{1}{8} \times 24 = 3$$

$$64 \text{ _____ } 192$$

$$1 \text{ _____ } 3$$

$$= 3 \times 3 = 9 \text{ m}$$

72. (A)  $\frac{50}{150} \times 100 = 33\frac{1}{3}\%$

73. (A) Diagonal =  $10\sqrt{2}$

$$\text{Side} = 10$$

$$= 10 \times 10 \times 20 = ₹ 2000$$

74. (C) Required percentage

$$= \frac{40+200}{600} \times 100$$

$$= \frac{24000}{600} = 40\%$$

75. (A) Required difference

$$= \frac{160-120}{600} \times 100 = 6.67\%$$

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2007, OUTRAM LINES, 1ST FLOOR, OPPOSITE MUKHERJEE NAGAR POLICE STATION, DELHI-110009

## MEANINGS IN ALPHABETICAL ORDER

| Word                | Meaning in English   | Meaning in Hindi        |
|---------------------|--|-------------------------|
| Access              | a means of approaching or entering a place   | पहुंच, प्रवेश           |
| Bestial             | of or like an animal   | वहशी                    |
| Bleaker             | (of a situation) not encouraging or giving any reason to have hope                               | निराशाजनक               |
| Chronic indigestion | recurring pain or discomfort in the stomach associated with difficulty in digesting food         | बदहजमी                  |
| Companion           | a partner  | साथी                    |
| Designate           | assign a name or title to  | नियुक्त करना            |
| Deteriorate         | become progressively worse   | बिगड़ना                 |
| Divulge             | make a private or sensitive information known  | भेद खोलना, घोषणा करना   |
| Hypothetical        | not real   | काल्पनिक                |
| Indulge             | allow oneself to enjoy the pleasure of something   | किसी काम में लिप्त होना |
| Inevitably          | that is certain to happen  | अनिवार्य रूप से         |
| Invert              | put upside down or in the opposite position, order, or arrangement                               | पलटना                   |
| Legacy              | something inherited  | विरासत                  |
| Non-existent        | not existing, or not real or present   | अस्तित्वहीन             |
| Preserve            | maintain something   | बनाये रखना              |
| Synagogue           | the building where a Jewish assembly or congregation meets for religious worship and instruction | यहूदी उपासनागृह         |
| Venture             | a risky or daring journey or undertaking   | जोखिम काम               |
| Virility            | manliness  | पौरुष ताकत              |



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## SSC MOCK TEST - 77 (ANSWER KEY)

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

76. (B) Change 'should be remained' into 'should remain'.  
77. (B) Change 'have' into 'had' as the sentence is in past tense.  
78. (B) Change 'on' into 'to' as 'something entrusted to someone' means 'to give someone the responsibility of doing something'.  
92. (C) The action is of past. 'was' will come in place of 'is'.

### Mock Test-76 (corrections)

96. (D)  
98. (D)

**Note:- If you face any problem regarding result or marks scored, please contact 9313111777**

**Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003**