SSC MOCK TEST - 362 (SOLUTION)

1. (A) Angioplasty is used to treat Heart problem, while Dialysis is used to treat Kidney problem.
2. (B) As, $4^3 + 1 = 65$
   And, $9^3 + 1 = 730$
   Similarly, $6^3 + 1 =$ **217**
3. (C) Except Cotton, others are food crops.
4. (C) (A) 81 + (8 + 1) = 90
   (B) 84 + (8 + 4) = 96
   (C) 75 + (7 + 5) = 87 ≠ 84
   (D) 64 + (6 + 4) = 74
5. (D) As,

14	15	9	19	5
N	O	I	S	E
↓1+4	↓1+5	↓9	↓1+9	↓5
5	6	9	10	5
↓	↓	↓	↓1+0	↓
5	6	9	1	5

⇒ 56915

And,

19	15	21	18	3	5
S	O	U	R	C	E
↓1+9	↓1+5	↓2+1	↓1+8	↓	↓
10	6	3	9	3	5
↓1+0	↓	↓	↓	↓	↓
1	6	3	9	3	5

⇒ 163935

Similarly,

13	15	14	4	1	25
M	O	N	D	A	Y
↓1+3	↓1+5	↓1+4	↓	↓	↓2+5
4	6	5	4	1	7

⇒ 465417

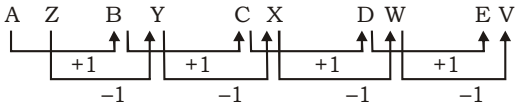
6. (C) $18 \times \frac{3}{2} = 27$

$27 \times \frac{4}{2} = 54$

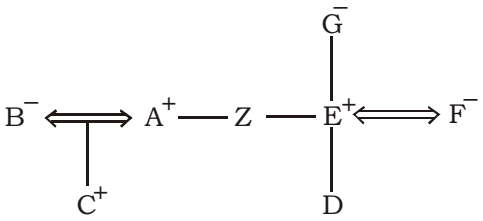
$54 \times \frac{5}{2} = 135$

$135 \times \frac{6}{2} =$ **405**

7. (A)



8. (C)



Hence, G is the mother of Z.

9. (C) As, 18 + (1 + 8) = 27
27 × (2 + 7) = 243
Similarly, 24 + (2 + 4) = 30
30 × (3 + 0) = 90

10. (B) l m **j** q r / **l** m **j** q r/ **l** m j q **r**

11. (D)

12. (B) **In the first row,**
(18 + 13) × (18 – 13) = 155
In the second row,
(29 + 22) × (29 – 22) = 357
In the third row,
(46 + 44) × (46 – 44) = **180**

13. (A) 225 × 5 + 4 ÷ 2 – 18 = 35
Change × and ÷ ,
225 ÷ 5 + 4 × 2 – 18 = 35
45 + 8 – 18 = 35
53 – 18 = 35
35 = 35

14. (A) At 6'o clock the hour hand is at 6 and minute hand is at 12, so they are 30 min apart.
Now to be together minute hand has to gain minutes over the hour hand.
Time taken to gain 55 minutes = 60 minutes

Time taken to gain 1 minute = $\frac{60}{55}$ minutes

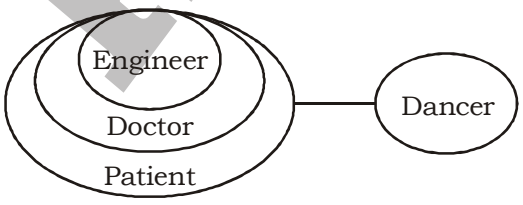
Time taken to gain 30 min = $\frac{60}{55} \times 30 = \frac{360}{11}$ minutes

So, the hands will coincide at $32\frac{8}{11}$ min past 6

15. (D) 2. Seed → 3. Sprout → 5. Sapling → 1. Plant → 4. Tree

16. (B) T > S > R > Q > P
Hence, T is the tallest among them.

17. (C)



I. True II. True III. True
Hence, all the conclusions follow.

18. (C) 19. (D)

20. (A) As, (17 – 8) × 8 = 72

Similarly, (25 – 11) × 11 = 154

21. (C) As, RETAILER → Alphabetical order → AEEILRRT

And, SPEAKER → Alphabetical order → AEEKPRS

Similarly, VEGETABLE → Alphabetical order → ABEEEGLTV

22. (B) 23. (A) 24. (A) 25. (C)

26. (B) Tide clocks are popular clocks are used by surfers, sailors, and anyone else who is concerned with the tidal cycle. They run on a 12 hour and 25 or 26 minute cycle, which is the time it taken for the high tide to ebb and flow back to high tide again.

27. (B) Nawabganj Bird Sanctuary, renamed in 2015 Shahid Chandra Shekhar Azad Bird Sanctuary, is a bird sanctuary located in Unnao district on the Kanpur-Lucknow highway in Uttar Pradesh, India consisting of a lake and the surrounding environment.

28. (A) Article 3 of the Indian Constitution deals with formation of new States of the Indian Union can be re-organized of their boundaries altered by an executive order of the Union government with the consent of the concerned state government by a simple majority in the ordinary process of legislation.

29. (B) In the S.R. Bommai Case in Union of India (1994) Justice Sawant and Kuldip Singh observed that Federalism and secularism was an essential feature of our Constitution and were a part of basic structure. In this case, the Supreme Court discussed at length provisions of Article 356 of the Constitution of India.

30. (B) President Droupadi Murmu launched 'herSTART', a startup platform for women entrepreneurs created by Gujarat University in Ahmedabad.

31. (A)

Rank	**Country**	**Uranium Reserves**
1.	Australia	1,706,100
2.	Kazakhstan	679,300
3.	Russian Fed	505,900
4.	Canada	493,900

32. (D) When heated from 0° to 10° C volume of a given mass of water will first decrease and then increase. If the word "ice" or "solid" is not mentioned, the word "water" means liquid water. Water vapour can be produced from the evaporation or boiling of liquid water. So the volume first decreases and then increases again when water droplets form the vapours due to stoppage of heat.

34. (C) Sound is sequence of waves of pressure that propagates through compressible media such as air or water. Sound that is perceptible by humans has frequencies from about 20 Hz to 20,000 Hz. In air at standard temperature and pressure, the corresponding wavelengths of sound waves can be reflected, refracted, or attenuated by the medium. Now if we consider these cases, then the train arriving has whistles of higher pitch because it propagates through a medium which is coming towards us but the train which is leaving propagating through a medium moving further away from the listener and thus produces whistle of lower pitch.

35. (D) India's earliest contact with Islam came through Arab merchants of the Malabar coast.

36. (D) After publishing a series of books and articles arguing that Buddhism was the only way for the untouchables to gain equality, Ambedkar publicly converted on October 14, 1956. After receiving ordination Ambedkar gave dhamma diksha to his followers. On 16th October, 1956, Ambedkar performed another mass religious conversion ceremony at Chanda.

37. (A) Chandragiri Fort is a historical fort, built in the 11th century located in Chandragiri, Tirupati in Andhra Pradesh, India. Chandragiri was under the rule of Yadava Naidus for about three centuries and came into control of Vijayanagar rulers in 1367.

39. (C) Penicillin is produced from the genus of fungi "Penicillin". All penicillin are alactam antibiotics and are used in the treatment of bacterial infections caused by susceptible, usually gram-positive, organisms.

40. (D) The Modi script was used to write the Marathi language spoken in the Indian state of Maharashtra. It originated as a cursive variant of the script during the 17th century CE. Modi was used until the 1950's when Devanagari replaced it as the written medium of the Marathi language.

43. (B) The Standing Committee on Labour, Textiles and Skill Development chaired by Bhartruhari Mahtab submitted its report on 'Implementation of Pradhan Mantri Kaushal Vikas Yojana (PMKVY)'.

44. (D) Upanayana is one of the traditional Samskaras (rites of passage) that marked the acceptance of a student by a guru (teacher) and an individual's entrance to a school in Hinduism. The tradition is widely discussed in ancient Sanskrit texts of India and varies regionally.

46. (C) A cricketer lowers his hands while taking a catch to decrease the rate of momentum. Cricketers increase the time by pulling their hand's backward with ball while taking a catch. Linear momentum or translational momentum is the product of the mass and velocity of an object.

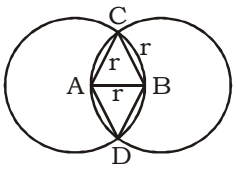
47. (D) The hepatic portal vein is a blood vessel that carries blood from the gastrointestinal tract and spleen to the liver. This blood is rich in nutrients that have been extracted from food.

48. (A) Tansen studied music for eleven years with Swami Haridas. He was the one who created Raga Miyan Ki Malhar.

49. (D) Edward Teller, Stanislaw M. Ulam, and other American scientists developed the first hydrogen bomb, which was tested at Enewetak atoll on November 1, 1952.

50. (D) The Purna Swaraj Declaration, of the Independence of India was promulgated by the Indian National Congress. A very large number of Congress volunteers and delegates, members of other political parties and an especially large public gathering attended the session Convened in Lahore.

51. (C)



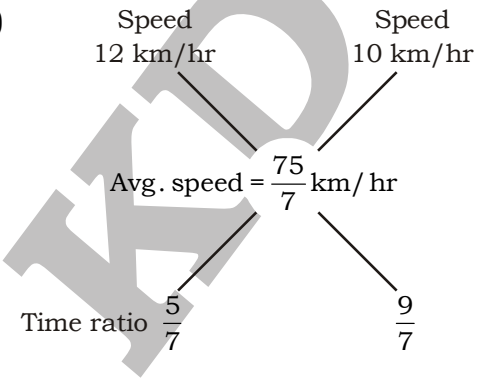
ΔABC and ΔABD are equilateral triangles.

$AB = AC = BC = BD = AD = r$

$\angle DBC = \angle CBA + \angle DBA$

$= 60° + 60° = 120°$

52. (A)



So, ratio = 5 : 9

(5 + 9) unit = 7 hours

14 unit = 7 hours

1 unit = $\frac{7}{14}$ hour

5 unit = $\frac{7}{14} \times 5 = \frac{35}{14}$ hours

Total distance cover at 12 km/hr = $12 \times \frac{35}{14} = 30$ km

53. (A) $(a^2 + 2a)^2 + 12(a^2 + 2a) - 45$

Let $(a^2 + 2a) = x$

$= x^2 + 12x - 45$

$= x^2 + 15x - 3x - 45$

$= x(x + 15) - 3(x + 15)$

$= (x - 3)(x + 15)$

Put the value of x,

$(a^2 + 2a - 3)(a^2 + 2a + 15)$

$= (a^2 + 3a - a - 3)(a^2 + 2a + 15)$

$= \{a(a + 3) - 1(a + 3)\}(a^2 + 2a + 15)$

$= (a - 1)(a + 3)(a^2 + 2a + 15)$

54. (B) A : B = 5 : 4

Total profit is 100%, but 90% profit is shared between them as 10% goes to charity.

5 unit = 7500

9 unit = $\frac{7500}{5} \times 9$

9 unit = 90%

As, 90% = $\frac{7500}{5} \times 9$

100% = $\frac{7500}{5 \times 90} \times 9 \times 100 = ₹\ 15{,}000$

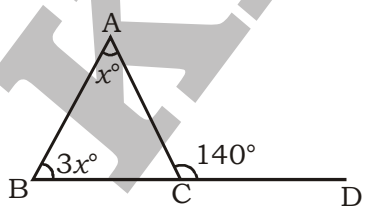
55. (A) Upstream speed, U = $\frac{2}{2} = 1$ km/hr

Downstream speed, D = $\frac{1}{\frac{1}{3}} = 3$ km/hr

Speed of boat in still water = $\frac{D+U}{2} = \frac{3+1}{2} = 2$ km/hr

So, required time = $\frac{5}{2}$ hours = 2 hours 30 minutes

56. (C)



$\angle A + \angle B = 140°$

$x + 3x = 140°$

$4x = 140°$

$x = 35°$

$\angle A = 35°$

57. (B) Let the time taken be x hours.
ATQ,
$3 \times 8 \times 2 = 4 \times x \times 1$
$x = 12$ hours

58. (D) L.C.M of 3, 5, 7, 8 = 840
840) 28523 (34
2520
3323
3360
– 37
So, 37 is the least number which should be added.

59. (A) Let the amount A be ₹ x.
Amount B = ₹ (36000 – x)
ATQ,

$$\frac{x \times 15 \times 4}{100} = \frac{(36000 - x) \times 15 \times 6}{100}$$

$2x = 108000 - 3x$
$5x = 108000$

$$x = \frac{108000}{5} = ₹\ 21600$$

Amount B = 36000 – 21600 = ₹ 14400

$$\therefore \text{ Total interest received } = \frac{21600 \times 15 \times 4}{100} + \frac{14400 \times 15 \times 6}{100}$$

= 12960 + 12960 = ₹ 25920

60. (B) $$\frac{\sin(A+B) - 2\sin A + \sin(A-B)}{\cos(A+B) - 2\cos A + \cos(A-B)}$$

$$= \frac{\sin A.\cos B + \cos A.\sin B + \sin A.\cos B - \cos A.\sin B - 2\sin A}{\cos A.\cos B - \sin A.\sin B + \cos A.\cos B + \sin A.\sin B - 2\cos A}$$

$$= \frac{2\sin A\cos B - 2\sin A}{2\cos A\cos B - 2\cos A} = \frac{2\sin A(\cos B - 1)}{2\cos A(\cos B - 1)} = \frac{\sin A}{\cos A} = \tan A$$

61. (D) Let the speed of man in still water be x km/hr.
Speed of stream = 3 km/hr
Speed of man in upstream = (x – 3) km/hr
Speed of man in downstream = (x + 3) km/hr
ATQ,

$$\frac{D}{x-3} = 9 \qquad \text{.....(i)}$$

$$\frac{D}{x+3} = 6 \qquad \text{.....(ii)}$$

Dividing equation (i) by (ii), we get

$$\frac{x+3}{x-3} = \frac{9}{6}$$

$6x + 18 = 9x - 27$

$3x = 45$

$x = \frac{45}{3} = 15$ km/hr

62. (C) To get 25% profit quantity of water mixed in one litre of milk = $1 \times \frac{25}{100} = \frac{1}{4}$

63. (A) Part of the cistern filled in 3 minutes = $\frac{3}{12} + \frac{3}{16} = \frac{21}{48} = \frac{7}{16}$

Remaining part = $1 - \frac{7}{16} = \frac{9}{16}$ part

Let remaining $\frac{9}{16}$ part was filled in x minutes.

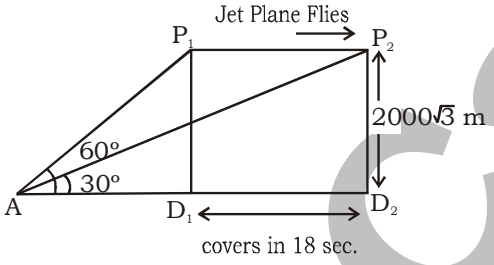
ATQ,

$\frac{x}{12} \times \frac{7}{8} + \frac{x}{16} \times \frac{5}{6} = \frac{9}{16}$

$= x\left(\frac{7+5}{96}\right) = \frac{9}{16}$

$x = \frac{9}{16} \times \frac{96}{12} = 4.5$ minutes

64. (A)



In ΔAP_1D_1,

$\tan 60° = \frac{P_1D_1}{AD_1} = \frac{2000\sqrt{3}}{AD_1}$

$\sqrt{3} = \frac{2000\sqrt{3}}{AD_1}$

$AD_1 = 2000$ m

In ΔAP_2D_2,

$\tan 30° = \frac{P_2D_2}{AD_2} = \frac{2000\sqrt{3}}{AD_2}$

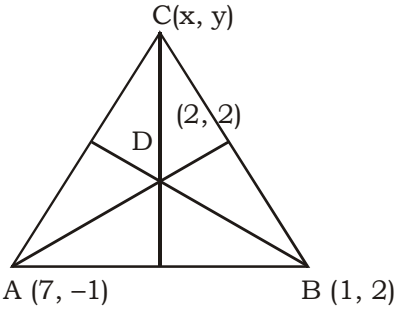
$\frac{1}{\sqrt{3}} = \frac{2000\sqrt{3}}{AD_2}$

$AD_2 = 6000$ m

$D_1D_2 = 6000 - 2000 = 4000$ m

Speed of the Jet = $\frac{4000}{18} \times \frac{18}{5} = 800$ km/h

65. (A)



Let co-ordinate of vertex C be (x, y).

$$2 = \frac{7+1+x}{3}$$

$6 = 8 + x$

$x = -2$

$$2 = \frac{-1+2+y}{3}$$

$6 = 1 + y$

$y = 5$

$\therefore$ (x, y) = (– 2, 5)

66. (D) $\dfrac{8x}{3} + \dfrac{\left[7\left(5 - \dfrac{2x}{3}\right)\right]}{2} = \dfrac{1}{2}$

$$\frac{8x}{3} + \frac{35 - \frac{14}{3}x}{2} = \frac{1}{2}$$

$$\frac{8x}{3} + \frac{105 - 14x}{6} = \frac{1}{2}$$

$$\frac{16x + 105 - 14x}{6} = \frac{1}{2}$$

$2x + 105 = 3$

$2x = 3 - 105$

$2x = -102$

$$x = -\frac{102}{2}$$

$x = -51$

67. (C) Number of diagonals $= \left[\dfrac{n \times (n-1)}{2} - n\right]$

$$= \left[\frac{8 \times (8-1)}{2} - 8\right] = 20$$

68. (D) Let the number of red balls = 100

Number of white balls = 160

Number of green balls = $160 \times \frac{87.5}{100} = 140$

Ratio of red, white and green balls = 100 : 160 : 140 = 5 : 8 : 7

$\therefore$ Number of green balls $= \frac{120}{20} \times 7 = 42$

69. (C) 45082K is divisible by 3.

So, (4 + 5 + 0 + 8 + 2 + K) is also divisible by 3.

(19 + K) is divisible by 3.

The greatest value of K = 8

The smallest value of K = 2

$\therefore$ Required sum = $8^2 + 2^2 = 68$

70. (A) $\left(\frac{7}{16} \div \frac{1}{2} \text{ of } \frac{1}{5}\right) \times \frac{4}{5} - \frac{1}{3} \times \frac{5}{8} \div \frac{1}{2} + \frac{3}{4}$

$= \frac{7}{16} \times \frac{10}{1} \times \frac{4}{5} - \frac{1}{3} \times \frac{5}{8} \times \frac{2}{1} + \frac{3}{4}$

$= \frac{7}{2} - \frac{5}{12} + \frac{3}{4} = \frac{42 - 5 + 9}{12} = \frac{46}{12} = \frac{23}{6}$

71. (D) $2\cos^2\theta - 5\cos\theta + 2 = 0$

$2\cos^2\theta - 4\cos\theta - \cos\theta + 2 = 0$

$2\cos\theta(\cos\theta - 2) - 1(\cos\theta - 2) = 0$

$(2\cos\theta - 1)(\cos\theta - 2) = 0$

$\cos\theta = \frac{1}{2}, 2$

$\cos\theta = \cos 60°$ (2 can't be taken as $0° < \theta < 90°$)

$\theta = 60°$

$\therefore$ $\sec\theta + \sin\theta = \sec 60° + \sin 60° = 2 + \frac{\sqrt{3}}{2} = \frac{4 + \sqrt{3}}{2}$

72. (D) Total number of students = (6 + 15 + 11 + 18 + 16) × 10 = 66 × 10 = 660

73. (B) Required number of students = (18 + 16) × 10 = 340

74. (C) Number of students who use bus = 150

$\therefore$ Required percentage = $\frac{150}{660} \times 100 = \frac{250}{11} = 22\frac{8}{11}\%$

75. (D) Required ratio = 6 : 16 = 3 : 8

MEANINGS IN ALPHABETICAL ORDER

Affluent	(especially of a group or area) having a great deal of money; wealthy	धनी
Ambition	a strong desire to do or to achieve something, typically requiring determination and hard work	महत्वाकांक्षा
Appreciate	recognize the full worth of	सराहना
Benevolence	the quality of being well meaning; kindness	भलाई
Cautious	(of a person) careful to avoid potential problems or dangers	सतर्क
Conceal	keep from sight; hide	छिपाना
Condolence	an expression of sympathy, especially on the occasion of a death	शोक
Depreciate	diminish in value over a period of time	मूल्य कम करना
Diligent	having or showing care and conscientiousness in one's work or duties	मेहनती
Elucidate	make (something) clear; explain	स्पस्ट करना
Erroneous	wrong; incorrect	गलत
Furious	extremely angry	आगबबूला
Hostile	unfriendly; antagonistic	विरोधी
Illustrate	provide (a book, newspaper, etc.) with pictures	स्पस्ट करना
Infuriate	make (someone) extremely angry and impatient	क्रुद्ध करना
Insolence	rude and disrespectful behavior	बदतमीजी
Lethargic	affected by lethargy; sluggish and apathetic	सुस्ती
Malevolence	the state or condition of being malevolent	द्वेष
Obstruct	block (an opening, path, road, etc.); be or get in the way of	बाधा डालना
Precise	marked by exactness and accuracy of expression or detail	सटीक

SSC MOCK TEST - 362 (ANSWER KEY)

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

76. (B) Change ‘are’ to ‘is’ because the subject ‘council of ministers’ is considered as one unit.

77. (B) Change ‘is’ to ‘has been’ to correct the error of tense to indicate that the damage has been done in present perfect.

90. (A) The correct spelling is 'Journey'.

91. (C) The correct spelling is 'Guidance'.