SSC MOCK TEST - 280 (SOLUTION)

1. (B) YAWC : UESG : : QIOK : **MMKO**

   (with shifts: -4, +4, -4, +4 for both groups)

2. (C)

   $$17 : 24 :: 153 : \mathbf{216}$$

   (×9 relation)
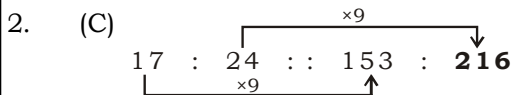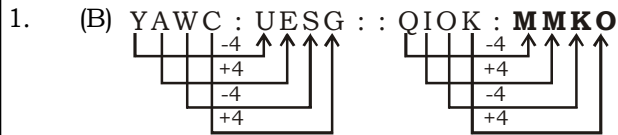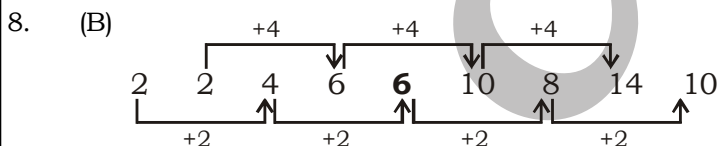
3. (B) As 'Justice' is done in 'Court'. Similarly, 'Education' is imparted in 'School'.

4. (D) (A) 97 ÷ 9, Remainder = 7 (an odd number)

   (B) 41 ÷ 4, Remainder = 1 (an odd number)

   (C) 83 ÷ 6, Remainder = 5 (an odd number)

   (D) 74 ÷ 7, Remainder = 4 (an even number)

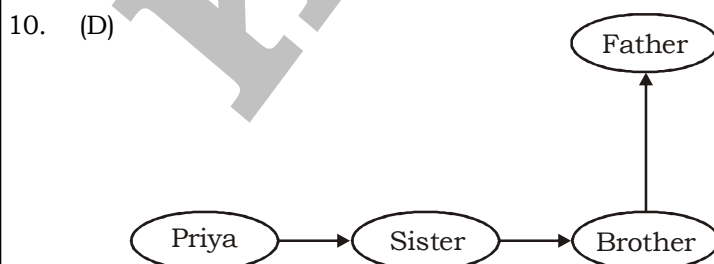5. (C) (A) G   I   J   M
       (+2, +1, +3)

   (B) L   N   O   R
       (+2, +1, +3)

   (C) T   R   P   S
       (-2, -2, +3)

   (D) C   E   F   I
       (+2, +1, +3)

6. (D) Avast, Norton and Kaspersky are antivirus, while Linux is an operating system.

7. (A) 1. Decollete → 3. Decorous → 2. Desecrate → 4. Desipicable → 5. Destitute

8. (B)

   $$2 \quad 2 \quad 4 \quad 6 \quad \mathbf{6} \quad 10 \quad 8 \quad 14 \quad 10$$

   (+4 on alternate terms, +2 on alternate terms)

9. (C) E $\xrightarrow{+2}$ G $\xrightarrow{+2}$ I $\xrightarrow{+2}$ **K** $\xrightarrow{+2}$ M

   L $\xrightarrow{+0}$ L $\xrightarrow{+0}$ L $\xrightarrow{+0}$ **L** $\xrightarrow{+0}$ L

   F $\xrightarrow{+2}$ H $\xrightarrow{+2}$ J $\xrightarrow{+2}$ **L** $\xrightarrow{+2}$ N

   A $\xrightarrow{+0}$ A $\xrightarrow{+0}$ A $\xrightarrow{+0}$ **A** $\xrightarrow{+0}$ A

10. (D)

    Father

    Priya → Sister → Brother → (Father)

    The boy in the photograph is the brother of Priya.

11. (B) T A M E

12. (D) As,

$9^2 + 6^2 = 81 + 36 = 117$

$8^2 + 2^2 = 64 + 4 = 68$

Similarly,

$7^2 + 3^2 = 49 + 9 = $ **58**

13. (C) **From figure I,**

$$\frac{32 + 128}{20} = \frac{160}{20} = 8$$

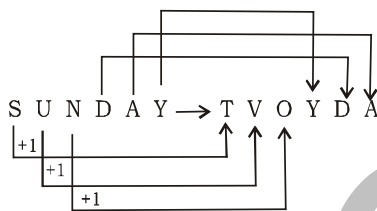**From figure II,**

$$\frac{71 + 9}{10} = \frac{80}{10} = 8$$

From figure III,

$$\frac{19 + 13}{\mathbf{4}} = \frac{32}{4} = 8$$

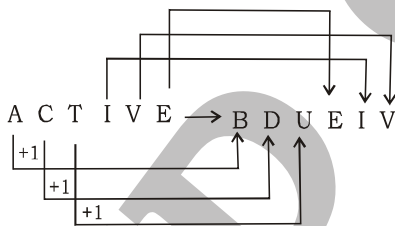14. (C) All are different from one another. Whale is not a fish, it is a mammal.

15. (D) Day after tommorrow is Saturday. So today is Thursday. Thus, yesterday was Wednesday and three days before Wednesday was Sunday.
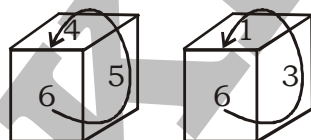
16. (A)

S U N D A Y → T V O Y D A

Similarly,

A C T I V E → B D U E I V

17. (B)

Shortcut:

Taking Anticlockwise from the number '6'.

6, 5, 4
6, 3, 1

Thus, opposite of '3' is '5'. So, at the bottom '5'.

18. (B)

19. (C)

L   I   T   E   R   A   T   E
↓   ↓   ↓   ↓   ↓   ↓   ↓   ↓
2   7   6   4   5   8   6   4

and

D   A   T   E
↓   ↓   ↓   ↓
9   8   6   4

Similarly,

R   E   L   A   T   E   D
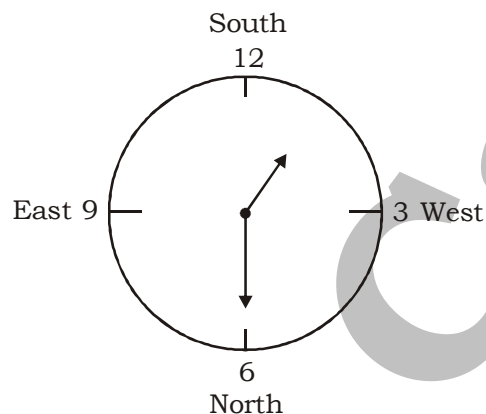↓   ↓   ↓   ↓   ↓   ↓   ↓
5   4   2   8   6   4   9

20. (D) $8 * 7 * 4 * 3 * 4 * 24$
$8 + 7 \times 4 - 3 \times 4 = 24$
$8 + 28 - 12 = 24$
$36 - 12 = 24$
$24 = 24$

21. (D)

Hence, the hour hand will be in South-West direction.

22. (B)

23. (A) **b** b **d** d a **a**/**b** b d d **a** a

24. (B)

25. (C) G → 10, 31, 02, **43**, 24
R → 20, **01**, 42, 33, 14
E → 00, 41, 12, **23**, 34
A → **95**, 86, 77, 68, 59
T → 75, 96, 67, 58, **89**

26. (B) The main motive of Third Five Year Plan in India is agriculture enhancement. The term of this plan being from the year 1961 to 1966.

28. (C) The liver is called the chemical factory of your body. It is called so because it receives substances and converts them into essential elements required for body.

29. (D) Formic Acid is present in Ant Bites. It is a simplest carboxylic acid. It is commonly used as a preservative and antibacterial agent in livestock feed.

30. (B) Pedalfer soil is sub-division of zonal classification of soil with high aluminium and iron oxides. It occurs in humid regions of earth's surface.

31. (B) Article 324 says - Superintendence, direction and control of elections to be vested in an Election Commission.

33. (A) The Chalukya dynasty was established by Pulakeshin I in 543.

35. (D) The demand for a normal good decreases with decrease in the consumer's income.

38. (D) The chemical formula of quicklime is CaO, which is also known as calcium oxide. This element is generally made up via the thermal decomposition of materials such as limestone or seashells.

39. (D) India is a federal union comprising twenty-nine states and seven union territories.

40. (A) Union Lists includes 100 items (97th is the last item numbered) and are given in the Seventh Schedule to the Constitution of India.

41. (C) The reflection formed by the plane mirror is lateral inversion. Due to lateral inversion left side appear right and vice versa, the best example for this phenomena is shaving mirror, in which both side reversed.

42. (A) The Battle of Plassey was fought between Nawab Siraj Ud-Daulah (Mughal Emperor of Bengal) and Colonel Robert Clive (British East India Company) in West Bengal.

43. (B) The Ministry of Statistics and Programme Implementation (MoSPI) releases the quarterly Periodic Labour Force Survey (PLFS).

45. (A) Indra is the most prominent god of 'Rig Veda'. He is considered as a heroic god, the creator and destroyer. He is known as slayer of Vritra and destroyer of the Vala, liberator of the cows and the rivers.

46. (A) Kosi river originates in Nepal and flows into the Ganges.

48. (C) Tuberculosis (TB) is an infectious disease usually caused by the bacterium Mycobacterium tuberculosis.

50. (B) As per the CEO of NITI Aayog, the number of Unified Payments Interface (UPI)-based transactions crossed the 2 billion mark in October 2020.

51. (A) **Divisibility rule of 9 :** If the sum of all the digits are divisible by 9, then the number is also divisible by 9.

    So, if only taken as 1, the number 119016 is divisible by 9.

52. (C) $(a + b)^2 = a^2 + b^2 + 2ab$

    $(12)^2 = a^2 + b^2 + 2 \times 15$

    $a^2 + b^2 = 144 - 30 = 114$

    ∴ $a^3 + b^3 = (a + b)(a^2 + b^2 + ab)$

    $= 12(114 - 15)$

    $= 12 \times 99 = 1188$

53. (D)

In ΔOMY,

OM = OY (Radius of circle)

$\angle$OMY = $\angle$OYM (Opposite angle of equal side of triangle)

$\angle$OMY = $\angle$OYM = 42°

In ΔOMY,

$\angle$OMY + $\angle$OYM + $\angle$MOY = 180°

42° + 42° + $\angle$MOY = 180°

$\angle$MOY = 180° – 84° = 96°

So, $\angle$MLY $= \dfrac{1}{2}\angle$MOY (An angle at the circumference of a circle is half at the centre subtended by the same arc)

$\angle$MLY $= 96 \times \dfrac{1}{2} = 48°$

Now, p + q = 42° + 48° = 90°

54. (B) Let the CP = ₹ 100

Marked price = $100 \times \dfrac{125}{100}$ = ₹ 125

Selling price = $125 \times \dfrac{75}{100}$ = ₹ 93.75

Loss = 100 – 93.75 = ₹ 6.25

Loss% $= \left(\dfrac{6.25}{100} \times 100\right)\% = 6.25\%$

55. (A) A can complete the work = 30 days

B can complete the work = $\dfrac{30}{125} \times 100$ = 24 days

C can complete the work = $\dfrac{24}{120} \times 100$ = 20 days

Let the total work = 120

(A + B + C)'s 3 days work = $\left(\dfrac{120}{30} + \dfrac{120}{24} + \dfrac{120}{20}\right) \times 3$ = 45 work

$\therefore$ Remaining work = 120 – 45 = 75

B's one day work = $\dfrac{120}{24}$ = 5

Number of days to complete the remaining work by B = $\dfrac{75}{5}$ = 15 days

56. (B) $\dfrac{\tan 30° \csc 60° + \tan 60° \sec 30°}{\sin^2 30° + 4\cot^2 45° - \sec^2 60°}$

$= \dfrac{\dfrac{1}{\sqrt{3}} \times \dfrac{2}{\sqrt{3}} + \sqrt{3} \times \dfrac{2}{\sqrt{3}}}{\left(\dfrac{1}{2}\right)^2 + 4 \times (1)^2 - (2)^2} = \dfrac{\dfrac{2}{3} + 2}{\dfrac{1}{4} + 4 - 4} = \dfrac{\dfrac{8}{3}}{\dfrac{1}{4}}$

$= \dfrac{8}{3} \times \dfrac{4}{1} = \dfrac{32}{3}$

57. (C) Let the male and female in the group be 7x and 6x respectively.

ATQ,

$\dfrac{7x + 4}{6x - 3} = \dfrac{4}{3}$

21x + 12 = 24x – 12

24x – 21x = 12 + 12

3x = 24

$x = \dfrac{24}{3} = 8$

Total number of male and female in the group = 7x + 6x = 13x

= 13 × 8 = 104

58. (B)

59. (C) Cost of the house = ₹ X

Profit = $\dfrac{25}{100} \times X$ = ₹ $\dfrac{X}{4}$

Tax paid = 50% × profit = $\dfrac{50}{100} \times \dfrac{X}{4}$ = ₹ $\dfrac{X}{8}$

60. (B) $\dfrac{2}{3}$ = 0.66, $\dfrac{3}{5}$ = 0.60, $\dfrac{8}{11}$ = 0.72 (Largest), $\dfrac{11}{17}$ = 0.65

61. (C) C.P. of goods = ₹ 450

Overall profit = 20%
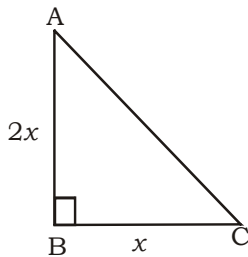
Total S.P. = 450 + 450 × $\dfrac{20}{100}$ = ₹ 540

S.P. of $\dfrac{1}{3}$ rd goods = $450 \times \dfrac{1}{3} \times \dfrac{90}{100}$ = ₹ 135

So, S.P. of rest goods = ₹(540 – 135) = ₹ 405

Profit = $\dfrac{405 - 300}{300} \times 100$ = 35%

62. (D)

63. (C)

$AC = \sqrt{(2x)^2 + x^2} = \sqrt{5}x$

$\sin A = \dfrac{x}{\sqrt{5}x} = \dfrac{1}{\sqrt{5}}$

$\cot C = \dfrac{x}{2x} = \dfrac{1}{2}$

$\sin A + \cot C = \dfrac{1}{\sqrt{5}} + \dfrac{1}{2} = \dfrac{2 + \sqrt{5}}{2\sqrt{5}}$

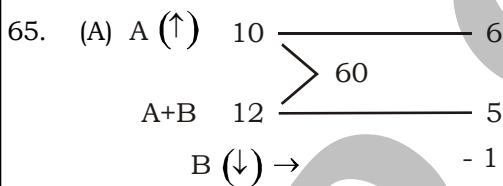64. (C) Let money received by C = ₹ x

Money received by B = ₹$(x + 6)$

Money received by A = ₹$(x + 6 + 7)$

ATQ,

$x + x + 6 + x + 13 = 76$

$x = ₹19$

∴ Required ratio = $(19 + 6 + 7) : (19 + 6) : 19 = 32 : 25 : 19$

65. (A)

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A (↑)    10 ————————— 6
            > 60
A+B      12 ————————— 5
   B (↓) →           - 1
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Leak can empty the cistern = $\dfrac{60}{1}$ = 60 hours

66. (C)

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Speed       Time      Actual Time difference
 4 ——————— 5              + 5
    > 20
 5 ——————— 4            −10
  −1hr. = 60 min.      15 min.
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∴ Required distance = $\dfrac{20}{60} \times 15 = 5$ km

67. (C) Average age of the group = $\dfrac{3 \times 20 + 4 \times 21 + 3 \times 22}{10} = \dfrac{210}{10} = 21$ years

68. (B)

$$\tan 30° = \frac{y}{x}$$

$$\frac{1}{\sqrt{3}} = \frac{y}{x}$$

$$x = \sqrt{3}y$$
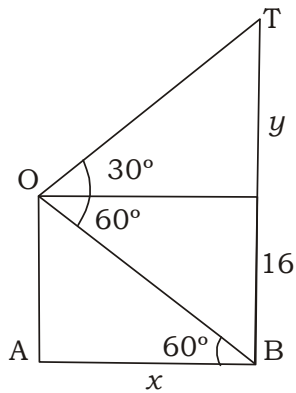
In Δ AOB,

$$\frac{16}{x} = \tan 60°$$

$$16 = \sqrt{3} \times \sqrt{3}y$$

$$\frac{16}{3} = y$$

$$y = 5.33$$

So, height of tower = (16 + 5.33) = 21.33 m

69. (B) Principal = (CI – SI) $\times \left(\dfrac{100}{\text{Rate}}\right)^2$

$$= 25 \times \left(\frac{100}{5}\right)^2 = ₹ \, 10,000$$

70. (B) S.P. = ₹ 1064

$$M.P. = 1064 \times \frac{100}{95} = ₹1120$$

$$C.P. = 1120 \times \frac{100}{140} = ₹ \, 800$$

Profit = ₹ (1064 – 800) = ₹ 264

71. (D) Level of field rise = $\dfrac{40 \times 30 \times 12.5}{1000 \times 30}$ = 0.5 m

72. (B) Fee paid for Architecture = 11% of 1,20,000

    = $\dfrac{11}{100} \times 1,20,000$ = ₹ 13,200

73. (A) Expenditure on Furniture and Curtains = (13 + 10)% of 1,20,000

    = $\dfrac{23}{100} \times 1,20,000$ = ₹ 27,600

74. (D) Percentage difference between Flooring and Grills = (14 – 10) % = 4%

    ∴ Required expenditure = $\dfrac{4}{100} \times 1,20,000$ = ₹ 4,800

75. (B) Percentage expenditure on Miscellaneous = 100 – (10 + 10 + 11 + 15 + 14 + 19 + 13) = 8%

    ∴ Required expenditure = $120000 \times \dfrac{8}{100}$ = ₹ 9600

MEANINGS IN ALPHABETICAL ORDER

Assemble	(of people) gather together in one place for a common purpose	इकट्ठा
Convene	come or bring together for a meeting or activity; assemble	बुलाना
Disperse	distribute or spread over a wide area	बिखेरना
Enmity	the state or feeling of being actively opposed or hostile to someone or something	शत्रुता
Humble	having or showing a modest or low estimate of one's own importance	नम्र
Lofty	of imposing height	बुलंद
Mediocre	of only moderate quality; not very good	साधारण
Miraculous	occurring through divine or supernatural intervention, or manifesting such power	चमत्कारपूर्ण
Mobilize	(of a country or its government) prepare and organize (troops) for active service	जुटाना
Muster	assemble (troops), especially for inspection or in preparation for battle	मुआयना
Plunder	steal goods from (a place or person), typically using force and in a time of war or civil disorder	लूट
Poke	jab or prod (someone or something), especially with one's finger	प्रहार
Revive	restore to life or consciousness	पुनर्जीवित
Ruin	the physical destruction or disintegration of something or the state of disintegrating or being destroyed	बर्बाद
Sabotage	deliberately destroy, damage, or obstruct (something), especially for political or military advantage	तोड़-फोड़
Shout	(of a person) utter a loud call or cry, typically as an expression of a strong emotion	चिल्लाना
Shove	push (someone or something) roughly	धक्का
Towering	extremely tall, especially in comparison with the surroundings	ऊंचा
Whip	a strip of leather or length of cord fastened to a handle, used for flogging or beating a person or for urging on an animal	कोड़ा
Whisk	take or move (someone or something) in a particular direction suddenly and quickly	धीरे

SSC MOCK TEST - 280 (ANSWER KEY)

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

76. (A) 'as like' replace with 'like'.

77. (D) 'No error'.

90. (D) The correct spelling of 'Irritible' is 'Irritable'.

91. (C) The correct spelling of 'Magnificient' is 'Magnificent'.