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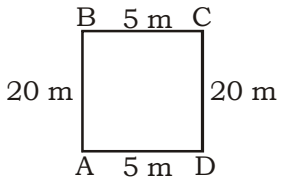
SSC MOCK TEST – 209 (SOLUTION)

1. (B) August = 3 Vowels and 3 Consonants.
= 3 × 3 = 9
January = 3 Vowels and 4 Consonants.
= 3 × 4 = **12**
2. (B) 324 ⇒ $3^2 \times 4 = 36$
623 ⇒ $6^2 \times 3 =$ **108**
3. (A) GOD = 7 × 15 × 4 = **420**
GOG = 4 × 15 × 7 = 420
4. (A) Except **Kanpur**, others are capital of the Indian states.
5. (C) Expect **Samudragupta**, others belong to Maurya dynasty.
6. (B) COOL
7. (B) Apple, Approach, **Appropriate**, Approval, Approve
8. (A) ac**b**d/c**b**da/b**d**ac/da**c**b
9. (B) 0 1 4 15 64 **325** 1956
×1+1 ×2+2 ×3+3 ×4+4 ×5+5 ×6+6
10. (C)



∴ Required distance (AD) = 5 m

11 (D) 1 4 27 256 3126
$(1)^1$ $(2)^2$ $(3)^3$ $(4)^4$ $(5)^5$

12. (D) The first letters in odd numbered terms form series. $J \xrightarrow{-1} I \xrightarrow{-1} H$ and in even numbered terms form series $K \rightarrow (L) \rightarrow M$.

Middle Number:

$2 \xrightarrow{+2} 4 \xrightarrow{+3} 7 \xrightarrow{+4} \mathbf{11} \xrightarrow{+5} 16 \xrightarrow{+6} 22$

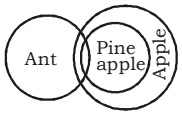
3rd letter

$Z \xrightarrow{-2} X \xrightarrow{-2} V \xrightarrow{-2} \mathbf{T} \xrightarrow{-2} R \xrightarrow{-2} P$

13. (B)
14. (A) 36 – 12 × 2 + 18 ÷ 9
= 36 – 12 × 2 + 2
= 36 – 24 + 2
= **14**
15. (C) 7th S — V 22nd, 12th

Total number of boys in the row
= 22 + 12 – 1 = 33

16. (B) 12 × 8 = 6 × 16, 14 × 5 = 10 × 7, 18 × 9 = 27 × **6**.
17. (A) LCM (12, 8) = 24
LCM (8, 6) = 24
LCM (6, 4) = 12
LCM (4, 10) = 20
LCM (10, 15) = 30
LCM (15, 12) = **60**
18. (D)



I. ✗ **II.** ✓

19. (B)
20. (A)
21. (D)
22. (A)
23 (A)
24. (A) Cricket is played with a 'bat' and 'bat is called 'racket'. So, cricket is played with a 'racket'.
25. (B) 68 86 41 34
R I D E
27. (C) The U.S Treasury uses three criteria to apply the disignation of currency manipulator. These are-
(i) actively intervening in their currency markets
(ii) having large trade surplus with the U.S.
(iii) having large overall current-account surpluses.
28. (B) The aim of Mission Shakti is to groom tribal students for an Olympic medal by 2024. The mission is directed towards six sporting disciplines-archery, shooting, volleyball, swimming, weightlifting and gymnastics.
31. (A)

Date	International Day
World Cancer Day	4 Febuary
World Rabies Day	28 September
World Food Day	16 October

32. (B) The National Film Award 2019 was the 66th edition. It is an award by Directorate of Film Festivals.
Best Actor – Anshuman Khurana (Andhadhun) and Vikki Kaushal (Uri: The Surgical Strike)
Best Actress – Keerthy Suresh (Mahanati)
33. (D) The Asian Development Bank is a regional development bank established on 19th December 1966 to promote social and economic development bank in Asia. ADB has 68 members of which 49 are from within Aisa and 19 from outside.

35. (D) Vajubhai Vala is the 18th Governor of Karnataka.
Hanshraj Bhardwaj was the 16th Governor of Karnataka and he has also been Governor of Kerala from 2012 to 2013.
Padmanabha Acharya was the 18th Governor of Nagaland (19 July 2014 to 31 July 2019)

36. (A) Recently, Lalit Kala Acadamy celebrated its 65th Foundation day. It was established on 5th August 1954. It is an autonomous organisation funded by Union Ministry of Culture. It was created for promoting and propagating understanding of Indian art within and outside the country.

40. (D) 94th Amendment Act 2006, made provision for the appointment of a Minister in charge of tribal welfare in the states of Chhatisgarh and Jharkhand.
92nd Amendment Act 2003, amended the Eighth Schedule to the constitution to include Bodo, Dogri, Maithili and Santhali languages, thereby raising the total number of language listed in the schedule to 22.
The 44th amendment of the Indian Constitution was significant as it removed partically the distortions that were introduced into the constitution by 42nd Amendment.

41. (C) SCO companies have two regional bodies-SCO Secretariat and SCO-RATS. SCO-RATS is a permanent body of the SCO and is intended to facilitate co-ordination and interaction between competant authorities of the SCO member states in the fight against terrorisim, extremism and separation. The main function of SCO-RATS are co-ordination and information sharing.

43. (D) First Anglo-Mysore war - (1766-60)
First Anglo-Maratha war - (1775-82)
First Anglo-Burmese war - (1824-1826)
First Anglo-Sikh war - (1845-46)

45. (C) Mutualism – symbiosis which is beneficial to both organisms involved.
Parasitism – the practice of living on or with another animal or organism gaining nutrition of shelter for it.

46. (B) Components of Monetary policy – open market operation, cash reverse ratio, statutory liquidity ratio, bank rate, credit ceiling, credit authorisation scheme, moral suasion and repo rate and reverse repo rate.

51. (B) A.T.Q.,

$$\frac{(.147+.289)^2-(.147-.289)^2}{.147\times.289}$$

$$=\frac{\left[(.147)^2+(.289)^2+2\times.147\times.289\right]^2-\left[(.147)^2-(.289)^2-2\times147\times2.89\right]}{.147\times.289}$$

$$=\frac{(a^2+b^2+2ab)-(a^2-b^2-2ab)}{aba}=\frac{4ab}{ab}=4$$

$$=\frac{4\times(.147\times.289)}{.147\times.289}=4$$

52. (A) ATQ.,
By using remainder theorem
Remainder = $f(2)$
$= 4(2)^3 - 2 \times (2)^2 + 5 \times 2 - 8$
$= 32 - 8 + 10 - 8$
$= 26$

53. (D) ATQ.,
Let x be the run scored by the batsman in 51th innings
So,
A.T.Q.,
Total runs before 51st innings
$= 59.6 \times 50$
Now,
Total innigs becomes = 51

$$\frac{59.6\times50+x}{51}=60$$

$\Rightarrow x = 3060 - 2980$
$\Rightarrow x = 80$

54. (A) ATQ.,
For mechanic,
Purchase price $= .9 \times .95 \times 2600$
$= ₹2223$
Total cost incurred by mechanic on scooter
$= 2223 + 477 = ₹2700$
S.P. = ₹2835
So,

$$\text{Profit\%} = \frac{2835-2700}{2700}\times100$$
$$= 5\%$$

55. (A) ATQ.,
H.C.F. of 435, 493 and 551 = 29
Each container will contain 29 litres of milk.
Minimum number of containers required

$$=\frac{435}{29}+\frac{443}{29}+\frac{551}{29}=51 \text{ litres}$$

56. (A) A.T.Q.,
Profit by C out of ₹1000
$= 1000 - (500 + 300) = ₹200$
Ratio of profit got by A and C = 5 : 2
contribution of A and C = 5 : 2
5 units of A → ₹1000

$$\text{2 units of C} \rightarrow \frac{1000\times2}{5} = ₹4000$$

So,
Contribution of C is ₹4000

57. (B) A.T.Q.,
Let quantity of rice be x quintal
C.P. = ₹150x

Spoiled rice 10% of $x = \frac{x}{10}$

Rice to be sold = $\frac{9x}{10}$ quintals

C.P. of rice to be sold = $\frac{9x}{10} \times 150$
= ₹135x

Profit of 20% m $\frac{9x}{10}$ quintals rice
5 units → ₹135x
6 units → ₹27x × 6

S.P. of $\frac{9x}{10}$ quintals rice are = ₹27x × 6

Rate = $\frac{27x \times 6}{\frac{9x}{10}}$ = ₹180/quintal

58. (D) A.T.Q.,

$\frac{(x-1)(x+1)}{(x+2)(x-1)} = \frac{9}{10}$

$\Rightarrow 10x + 10 = 9x + 18$
$\Rightarrow x = 8$

59. (D) A.T.Q.,
Let,
Amounts = 5 units
S.I. = 2 units
C.P. = 3 units
5 years SI → 2 units
Now,

1 year → $\frac{2}{5}$ unit

3 units → $\frac{2}{5}$

100 units → $\frac{2 \times 100}{5 \times 3}$

Rate % → $\frac{200}{15} = 13\frac{1}{3}\%$

60. (B) A.T.Q.,
Let,
Principle = x

Amount = P $\left(1+\frac{r}{100}\right)^n$

$\Rightarrow x\text{P} = x\left(1+\frac{r}{100}\right)^a$

Taking log both sides

$\Rightarrow \log\text{P} = a \log\left(\frac{100+r}{100}\right)$ ...(i)

Now,

$xq = \text{P}\left(1+\frac{r}{100}\right)^n$

Again taking log both sides

$\log q = n \log\left(\frac{100+r}{100}\right)$

...(ii)
From equation (i) and (ii)

$n = \frac{a \log q}{\log p}$

61. (C) Let the original student be n
After 20 days
For n students food last for 10 days more
$\therefore$ For (n + 500) students food last for 5 days
A.T.Q.,
$10n = 5\ (n + 500)$
$\Rightarrow 5\ n = 2500$
$\Rightarrow n = 500$
The number of students originally 500.

62. (B) A.T.Q.,
₹x → fixed expense
A ₹ y → Expense per student
$\Rightarrow x + 200y = 1300$ ...(1)
$x + 250y = 1600$ ...(2)
$\Rightarrow 50y = 300$
$y = 6$
Put the value of y = 6 in equation (1)
$\Rightarrow x + 200y = 1300$
$\Rightarrow x = 100$
Expense for 300 students = x + 300 ×6
100 + 1800 = ₹1900

63. (C) A.T.Q,

$1 + \frac{1}{2^2} + \frac{1}{3^2} + \frac{1}{4^2} + \ldots\ldots\ldots\infty = x$

$\Rightarrow \left(1+\frac{1}{3^2}+\frac{1}{5^2}+\ldots\ldots\infty\right) + \left(\frac{1}{2^2}+\frac{1}{4^2}+\frac{1}{6^2}\ldots\ldots\infty\right) = x$

$\Rightarrow \left(1+\frac{1}{3^2}+\frac{1}{5^2}+\ldots\ldots\infty\right) + \frac{1}{2^2}\left(1+\frac{1}{2^2}+\frac{1}{3^2}+\ldots\ldots\infty\right) = x$

$\Rightarrow \left(1+\frac{1}{3^2}+\frac{1}{5^2}+\ldots\ldots\infty\right) + \frac{x}{4} = x$

$\Rightarrow \left(1+\frac{1}{3^2}+\frac{1}{5^2}+\ldots\ldots\infty\right) = \frac{3x}{4}$

64. (B) A.T.Q,.
Let the distance of the office from the house of the man be x m.

Speed = $\frac{4km}{h} = \frac{4 \times 5}{18} = \frac{10}{9}$ m/sec.

$= \frac{200}{3}$ m/min.

Time taken = $\frac{3x}{200}$ min

New speed = $\frac{5 \times 5}{18} \times 60 = \frac{250}{3} \times 60$ m/min.

Time taken = $\frac{3x}{250}$ min

Now, $\frac{3x}{200} - 5 = \frac{3x}{250} + 4$

x = 3000 metres

$\Rightarrow$ x = 30 km

The distance ot his office from the house is 3 km.

65. (C) A.T.Q,

$x = \sqrt{3} + \sqrt{4} + \sqrt{5}$

$\Rightarrow x - 2 = \sqrt{3} + \sqrt{5}$

Squaring both sides, we get

$x^2 + 4 - 4x = 3 + 5 + 2\sqrt{15}$

$\Rightarrow x^2 - 4 - 4x = 2\sqrt{15}$

Again squaring both sides, we get

$x^4 + 16x^2 + 16 - 8x^3 + 32x - 8x^2 = 60$

$\Rightarrow x^4 - 8x^3 + 8x^2 + 32x = 44$

Multiply both sides by 3

$3x^4 - 24x^3 + 24x^2 + 96x = 132$

Now,

$3x^4 - 24x^3 + 28x^2 + 80x - 148$

$= 132 + 4x^2 - 16x - 148$

$= 132 + 4[4 + 2\sqrt{15}] - 148 = 8\sqrt{15}$

66. (D) A.T.Q,

$$\cos x = \frac{2\cos y - 1}{2 - \cos y}$$

Let y = 60°

$$\cos x = \frac{2 \times \frac{1}{2} - 1}{2 - \frac{1}{2}}$$

$\Rightarrow x = 90°$

Then,

$$\tan\left(\frac{x}{2}\right) \cot\left(\frac{y}{2}\right) = \tan 45° \cot 30° = \sqrt{3}$$

67. (C) A.T.Q,

3E7 + 2F8 + 5G9 = 1114

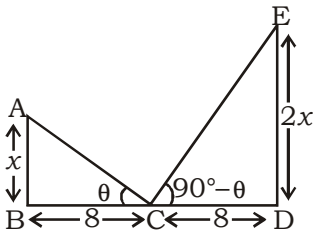
[$\because$ At unit place digit's sum is 24 we take 4 and carry 2 again tens digit place is 1 so total sum of digits is 11]

$\therefore$ E + F + G = 9

For F maximum E and G will be 1 and 2

So, F = 6

68. (B) Let the height of the shorter building be x m.



Now, In Δ ABC,

$$\tan\theta = \frac{x}{8} \text{ ..... (i)}$$

and,

In Δ CDE

$$\tan(90 - \theta) = \frac{2x}{8}$$

$$\Rightarrow \cot = \frac{2x}{8} \text{ ..... (ii)}$$

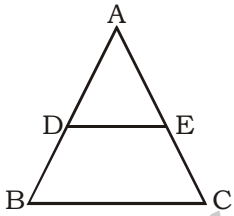
Multiply equation (i) and equation (ii)

$$\tan\theta \times \cot\theta = \frac{x}{8} \times \frac{2x}{8}$$

$$\Rightarrow \frac{x^2}{32} = 1 \Rightarrow x = 4\sqrt{2} \text{ m}$$

$\therefore$ Height of the shorter building = $4\sqrt{2}$ m

69. (D)



$\because$ DE || BC

[A line parallel to one side of a Δ divides the other two sides in same proportion]

$$\frac{AD}{DB} = \frac{AE}{EC}$$

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

$\Rightarrow (x + 1)(x + 4) = (x + 3)(2x - 1)$

$\Rightarrow x^2 + 5x + 4 = 2x^2 + 5x - 3$

$\Rightarrow x = \sqrt{7}$

70. (A) A.T.Q.,

Sides of square field = $\sqrt{4225}$ = 65 m

Sides of the square field including path = 65 + 2.5 + 2.5 = 70m

Its area = $70^2 = 4900 m^2$

Area of the path = $(4900 - 4225) m^2$

= $675 m^2$

71. (A) Given sequence is in the form of $n^2 - 1$

Then, 11th term of the sequence

= $11^2 - 1 = 120$

72. (B) Production of type D toys in 2003 = 105 Thousand

Production of type D toys in 2005 = 125 Thousands

125— 105

$$\% \text{ increase} = \frac{125 - 105}{105} \times 100$$

$$= \frac{20}{106} \times 100 = 19\% \text{ (app.)}$$

73. (A) Production of type A toys in 2002 = 200 Thousand
Production of type A toys in 2004 = 180

$$\% \text{ decrease} = \frac{200-180}{200}\times 100 = 10\%$$

74. (C) Total production in 2005 = 675 thousand
Total production in 2006 = 750 thousand
% increase in production

$$= \frac{750-675}{675}\times 100$$

$$= \frac{75}{675}\times 100$$

= 11% (approx)

75. (D) Average number of toys of type B manufactured over the years
= (150 + 80 + 175+160+185)/5
= 750/5= 150 thousands
Average no. of toys of type C manufactured over the years =

$$\frac{78 + 100 + 92 + 120 + 130}{5}$$

= 520/5 = 104
Difference = 150 — 104 = 46

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Befitting	suitable, appropriate	उपयुक्त
Confront	to oppose or challenge (someone) especially in a direct and forceful way	सामना करना
Contour	the outline or outer edge of something	रूप-रेखा
Disregard	to ignore (something) or treat (something) as unimportant	अनादर करना
Esoteric	only taught to or understood by members of a special group, hard to understand	गूढ़
Frolic	a playful or mischievous action	उछल-कूद
Germane	relating to a subject in an appropriate way	उपयुक्त
Glutton	a person who eats too much	भुक्खड़, पेटू
Grieve	to cause (someone) to feel sad or unhappy	दु:खित होना
Leer	to look at someone in an evil or unpleasantly sexual way	बुरी नजर से देखना
Parasol	a light umbrella that you use to protect yourself from the sun	छतरी
Patricide	the act of murdering one's own father	पितृहत्या
Scurrilous	said or done unfairly to make people have a bad opinion of someone	बदतमीजी
Mariticide	one that murders or kills his or her spouse	पति की हत्या
Sororicide	a person who kills his sister	बहन की हत्या
Proverder	dry food for domestic animals, feed	चारा
Quintessence	the most typical example or representative	सारांश
Labyrinth	a place that has many confusing paths and passages	भूलभुलैया
Pandemonium	wild uproar	विप्लव
Coarse	having a harsh or rough quality	भद्दा
Insolent	showing lack of respect for rank	ढ़ीठ
Complimentary	given free as a courtesy or favour	सराहनीय
Unfathomable	impossible to understand	अपरिमेय
Unassailable	not able to be doubted, attacked	अभेद्य

SSC MOCK TEST - 209 (ANSWER KEY)

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

76. (B) Replace 'research' with 'researched'. This part of the sentence is in Present Perfect Tense and the structure used in this tense is

Sub + has/have + V^3 + obj.

77. (C) Replace 'there' with 'their'. 'Their' is the possessive form of they. There is an introductory subject.

78. (B) Replace 'their' with 'its'. Here, Possessive Adjective 'its' is used for bitcoin'. Here future of bitcoin is talked about.

80. (B) 'Deservedly' is the correct option. '**Deservedly**' means in the way that is deserved rightfully (**उचित रूप से**).

88. (B) 'for taking into' is the correct option. Preposition is followed by 'V_1 + ing'. 'Take something into account' is a phrase which means to consider or remember something when judging a situation.

89. (C) The action is of Present routine. Use Simple Present Tense.

98. (D) The author mentions that there have been instances when embassies have been attacked by students as a part of fulfilling political agenda. The governments have been using this kind of old measures to force the hands of other nations to abide by their ideologies and decisions.

99. (D) The author has very critically analysed and mentioned that the mob is constantly being used as a political tool for the destructive actions.

100. (C) Demolition means to pull down (ध्वस्त करना)

Note:- Whatsapp with Mock Test No. and Question No. at 7053606571 for any of the doubts. Join the group and you may also share your suggestions and experience of Sunday Mock Test.

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