SSC (GD)MOCK TEST – 12 (SOLUTION)

1. (B) As, $(1)^3 \times 8 = 8$
    Similarly, $(3)^3 \times 8 = $ **216**

2. (A) As, $\underset{\boxed{14 \times 3 + 14 \div 2}}{14 \qquad 49}$

    Similarly, $\underset{\boxed{18 \times 3 + 18 \div 2}}{18 \qquad \textbf{63}}$

3. (B) As, $\underset{\boxed{(6+4) \times 4}}{64 \qquad 40}$

    Similarly, $\underset{\boxed{(5+6) \times 4}}{56 \qquad \textbf{44}}$

4. (D) As, SURE $\xrightarrow{4 \times 3 + 3}$ 15

    Similarly, SCHOOL $\xrightarrow{6 \times 3 + 3}$ **21**

5. (C) Except **492765831**, all others are written with the help of 8 digits.

6. (D) Except **PHRASE**, in all others vowel A used two times.

7. (B)

8. (B) As, $54 - 32 = 22$
    Similarly, $48 - 26 = $ **22**

9. (A) As, $\dfrac{-2+0}{2} = -1$

    and, $\dfrac{-1+1}{2} = 0$

    Similarly, $\dfrac{10+2}{2} = $ **6**

10. (B)

11. (C)

12. (B) 1, 12, 7, 5, 2, 18, 1
    ↓ ↓ ↓ ↓ ↓ ↓ ↓
    A L G E B R A

13. (A)

14. (D) After changing the signs,
    $36 \times 6 \div 3 + 5 - 3 = 74$
    $\Rightarrow 72 + 5 - 3 = 74$
    $\Rightarrow$ **74 = 74**

15. (D)

16. (C)

17. (A) 2, 7, 17, 73, 359, **2161**
    $\times 2 \times 3 \quad \times 3 - 4 \quad \times 4 + 5 \quad \times 5 - 6 \quad \times 6 + 7$

18. (D) 2, 3, 10, 39, 172, **885**
    $\times 1 + 1^2 \quad \times 2 + 2^2 \quad \times 3 + 3^2 \quad \times 4 + 4^2 \quad \times 5 + 5^2$
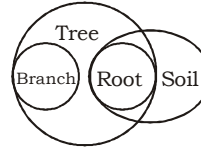
19. (B)

20. (A)

21. (B)

22. (C)

23. (D) From figure,
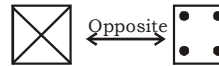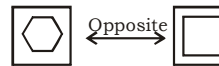
    can't be made by the question figure.

24. (C) Seventh letter from the left is A and third letter to its right is **k.**

25. (C)
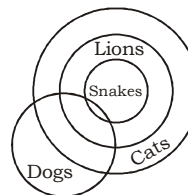
    I. ✓
    II. ✓
    Hence, both conclusion follow.

51. (D) Let speed of boat = x, speed of current = y
    Downstream speed = $(x + y)$
    Upstream speed = $(x - y)$
    ATQ,

    $\dfrac{36}{x+y} + \dfrac{36}{x-y} = 13 \quad ...(i)$

    $\dfrac{7}{x+y} = \dfrac{3}{x-y} \quad .....(ii)$

    $\Rightarrow \dfrac{x+y}{x-y} = \dfrac{9}{4}$, assume $x + y = 9k$,

    $(x - y) = 4k$, put values in equation (i)
    then, $k = 1$, $x + y = 9$, $x - y = 4$

Speed of boat = $\dfrac{9+4}{2}$ = 6.5 km/hr

Speed of current = $\dfrac{9-4}{2}$ = 2.5 km/hr

52. (C) ATQ,

$x = y$

$\Rightarrow 3t = \dfrac{3t-1}{4}$

$\Rightarrow 8t = 3t - 1$

$\Rightarrow 5t = -2$

$\Rightarrow t = \dfrac{-2}{5}$

53. (C)

	Tiger	:	Deer
Leaps taken per minute	5	:	4
Distance covered per leap	8 m	:	5 m
Speed →	40 m/min		20 m/min
		20 m/min	

Both are running in the same direction, so relative speed = (40 – 20) = 20 m/min.

Actual distance between deer and tiger = 50 × 8 = 400 m

Time taken by tiger to overtake deer

= $\dfrac{400}{20}$ = 20 min

Distance travelled by tiger in 20 min = 20 × 40 = 800 m.

54. (B) Number of passengers after getting down and getting in at the first station
= 240 – 12 + 22 = 250

Passengers left in the train after the second station = $250 - \dfrac{1}{5} \times 250 = 200$

Let x people get down at the third statioin, then

ATQ,

$200 + 32 - x = 240 \times \dfrac{80}{100}$

$\Rightarrow 232 - x = 192$

$\Rightarrow x = 40$

55. (D) Cost price of an atricle A = ₹ 180

Selling price of A = $180 \times \dfrac{125}{100}$ = ₹ 225

ATQ,

Cost price of B = ₹ 225

Selling price of B = ₹ 270

Profit = 270 – 225 = ₹ 45

Percentage profit = $\dfrac{45}{225} \times 100$ = 20%

56. (C) Let the marked price of shirt be ₹ $2x$ and that of trouser be $3x$.

Let the discount on the trousers be y%
Then,

$2x \times \dfrac{60}{100} + 3x \times \dfrac{y}{100} = 5x \times \dfrac{40}{100}$

$\Rightarrow 120x + 3xy = 200x$

$\Rightarrow 3y = 80$

$\Rightarrow y = \dfrac{80}{3}$ = 26.67%

57. (B) As BC||AD and the diagonals of a trapezium divide each other propertionally.

So, $\dfrac{AO}{OC} = \dfrac{BO}{OD}$

$\Rightarrow \dfrac{3x-1}{5x-3} = \dfrac{2x+1}{6x-5}$

$\Rightarrow (3x - 1)(6x - 5)$
$= (5x - 3)(2x + 1)$

$\Rightarrow 18x^2 - 15x - 6x + 5$
$= 10x^2 + 5x - 6x + 5$

$\Rightarrow 8x^2 - 20x + 8 = 0$

$\Rightarrow 4x^2 - 10x + 4 = 0$

$\Rightarrow 4x^2 - 8x - 2x + 4 = 0$

$\Rightarrow 4x(x - 2) - 2(x - 2) = 0$

$\Rightarrow (4x - 2)(x - 2) = 0$

$\Rightarrow x = \dfrac{1}{2}$ or $x = 2$

But as $x = \dfrac{1}{2}$ will make OC negative

∴ $x = 2$

58. (D) Total cost price = 144 × 15 + 200 = ₹ 2300

Total selling price = 144 × 12 × 2.25
= ₹ 3888

Profit = ₹ 3888 – ₹ 2300 = ₹ 1588

Profit % = $\dfrac{1588}{2300} \times 100$ = 69.04%

59. (C) Required remainder = Remainder obtained by dividing 6^2 by 7.
Remainder = 1

60. (B) Slant height of the cone,

$l = \sqrt{(8)^2 + (6)^2}$ = 10 cm

Lateral surface of the solid = Curved surface of cone + Curved surface of cylinder + Surface area of bottom

= $prl + 2prh + pr^2$, where h is the height of the cylinder.

= $\pi r(l + h + r) = \left[\dfrac{22}{7} \times 16 \times (10 + 20 + 16) \right] cm^2$

$= \left(\dfrac{22}{7} \times 14 \times 46 \right)$ cm²

$= 2024$ cm²

61. (A) ATQ,

$\dfrac{x + \dfrac{1}{x}}{2} = 24$

$\Rightarrow x + \dfrac{1}{x} = 48$

Required average

$= \dfrac{x^2 + \dfrac{1}{x^2}}{2} = \dfrac{\left(x + \dfrac{1}{x} \right)^2 - 2}{2}$

$= \dfrac{(48)^2 - 2}{2} = 1151$

62. (C) Pipe A is opened at 9 am, pipe B at 10 am and the pipe C at 11 am.

Part of the tank filled by pipe A in 2 hours $= \dfrac{2}{3}$

Part of the tank filled by pipe B in 1 hour $= \dfrac{1}{4}$

Part of the tank filled by pipe B in 1 hour $= \dfrac{1}{4}$

Part of the tank filled till 5 pm

$= \dfrac{2}{3} + \dfrac{1}{4} = \dfrac{8 + 3}{12} = \dfrac{11}{12}$

Remaining part $= 1 - \dfrac{11}{12} = \dfrac{1}{12}$

New part empited when A, B and C are opened $= \dfrac{1}{3} + \dfrac{1}{4} - 1 = \dfrac{4 + 3 - 12}{12} = \dfrac{-5}{12}$

$\therefore \dfrac{5}{12}$ Part is emptied in 1 hour

$\therefore \dfrac{11}{12}$ is emptied in $= \dfrac{12}{5} \times \dfrac{11}{12}$

$= \dfrac{11}{5}$ hours

$\therefore$ Required time $= 11 + 2\dfrac{1}{5} = 01 : 12$ pm

63. (B) Average cost of 1 bag of rice

$= ₹ \left(\dfrac{8 \times 900 + 9 \times 1200 + 6 \times 1600}{8 + 9 + 6} \right)$

$= ₹ \left(\dfrac{7200 + 10800 + 9600}{23} \right)$

$= \dfrac{27600}{23} = ₹ 1200$

64. (D) $\because$ PR$||$TS

$\therefore \angle$ PRQ $= \angle$ USR $= 45°$

In $\triangle$PQR

$\angle$ PQR $= 180° - (45° + 80°) = 55°$

$\therefore \angle$ TPU $= \angle$ PQR $= 55°$

$[\because$ PU$||$RS$||$QS$]$

65. (A)

Present (wages)   Absent (wages)

40×20 -12×40

576

Days $\rightarrow$ 1056 : 224

33 : 7

Number of days in which he was absent

$= \dfrac{40}{(33 + 7)} \times 7 = 7$ days

66. (C) LCM of 9, 10 and 15 = 90

$\Rightarrow$ The multiple of 90 are also divisible by 9, 10 and 15.

$\therefore$ 21 × 90 = 1890 will be divisible by them

$\therefore$ Now, 1897 will be the number that will give remainder 7.

Required number = 1934 – 1897 = 37

67. (B) Let the number be x. Then,

$\dfrac{5}{6}x - \dfrac{5}{16}x = 275$

$\Rightarrow \dfrac{40x - 15x}{48} = 275$

$\Rightarrow 25x = 48 \times 275$

$\Rightarrow x = 528$

68. (D) If the remainder be x, then $(11284 - x)$ and $(7655 - x)$ are divisible by three digit number. i.e. $(11284 - x) - (7655 - x)$ = 3629 is divisible by that number.

3629 = 19 × 191

Hence, required number = 191

Sum of digits = 1 + 9 + 1 = 11

69. (A) ATQ,

$x \propto \dfrac{1}{y^2 - 1}$ $\Rightarrow x = \dfrac{k}{y^2 - 1}$

Where k is a constant.

When $y = 10$, $x = 24$, then

$\therefore 24 = \dfrac{k}{10^2 - 1} \Rightarrow 24 = \dfrac{k}{99}$

$\Rightarrow k = 24 \times 99$

When $y = 5$, then

$$x = \frac{k}{y^2 - 1} = \frac{24 \times 99}{5^2 - 1} = \frac{24 \times 99}{24} = 99$$

70. **(B)** Given $a = -8$, $b = -9$ and $c = 12$

$\therefore a + b + c = (-8) + (-9) + 12 = -5$

$$= \frac{a^3 + b^3 + c^3 - 3abc}{ab + bc + ca - a^2 - b^2 - c^2}$$

$$= \frac{(a+b+c)(a^2+b^2+c^2-ab-bc-ca)}{-(a^2+b^2+c^2-ab-bc-ca)}$$

$$= \frac{-5}{-1} = 5$$

71. **(C)** Diameter of circle = breadth of park = 28 m

$\therefore$ Radius of circle $= \dfrac{28}{2} = 14$ m.

$\therefore$ Area of circle $= pr^2 = \dfrac{22}{7} \times 14 \times 14$

$$= 616 \text{ m}^2$$

Required area $= 36 \times 28 - 616 = 392$ m²

72. **(B)** SI = ₹ (7200 − 6000) = ₹ 1200

$\therefore$ SI $= \dfrac{\text{PRT}}{100} \Rightarrow 1200 = \dfrac{6000 \times R \times 4}{100}$

$\Rightarrow R = \dfrac{1200 \times 100}{6000 \times 4} = 5\%$

New rate(R) = 5 × 1.5 = 7.5%

Then, SI $= \dfrac{6000 \times 7.5 \times 5}{100} = $ ₹ 2250

$\therefore$ Amount = ₹ (6000 + 2250) = ₹ 8250

73. **(D)**

74. **(B)** Let the expenditure = x

In 1993,

$$130 = \frac{I_1 \cdot x}{x} \propto 100 \Rightarrow \frac{130x}{100} + x = I_1$$
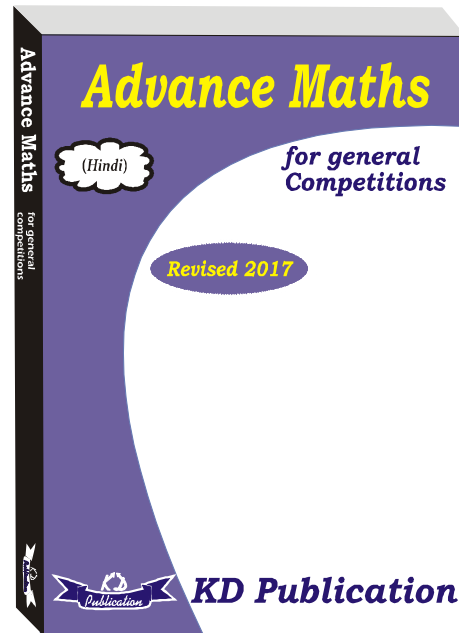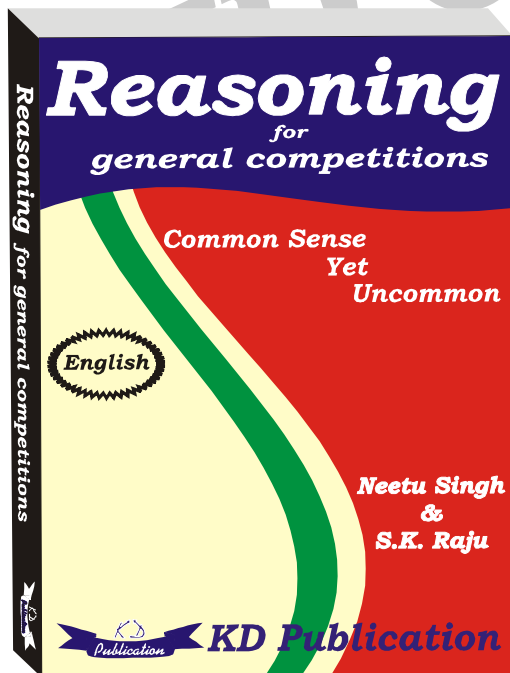
$$\Rightarrow I_1 = \frac{230x}{100}$$

and, in 1997,

$$150 = \frac{I_2 \cdot x}{x} \propto 100 \Rightarrow \frac{150x}{100} + x = I_2$$

$$\Rightarrow I_2 = \frac{250x}{100}$$

$\therefore$ Required ratio $= \dfrac{\dfrac{230x}{100}}{\dfrac{250x}{100}} = 23 : 25$

75. **(A)** Required Average profit

$$= \frac{100+130+90+140+150+120}{6}$$

$$= \frac{730}{6} = 121\frac{2}{3}$$

76. (C) Change 'is' into 'are', as 'the problems' are plural in number and take plural verb.

77. (B) Add 'the' before 'fence', as 'sitting on the fence' is the correct idiomatic expression.

78. (B) Replace 'with' by 'to', as adjacent takes the preposition 'to' with it.

98. (A) The correct idiom is 'hard put to' which means 'struggling to do or accomplish something'.

99. (D) 'It is a high time', or 'It is time' phrases takes V_2 (past form) of verb after it, and past form of 'Burst' remains same.

100. (C) (Make/made + obj. + V_1) i.e. when used in active voice takes bare infinitive.

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Inveigle	to persuade to do something by means of flattery or deception.	धोखा देना
Persuade	cause (someone) to believe something	मनाना समझाना
Iniquitous	grossly unfair and morally wrong	अन्यायपूर्ण
Vile	Morally bad, wicked	नीच, घिनौना
Doyen	most respected or prominent	अनुभवी
Miscreant	a person who has done something wrong	नीच
Rogue	dishonest or unprincipled man	दुष्ट
Pall	to grow less in scope or intensity	ढंकना
Prominent	important, famous	मुख्य
Imbecile	stupid, fool	मूर्ख
Sapient	having deep knowledge or understanding	ज्ञानपूर्ण
Manifold	having many different forms or elements	विविध
Fluvial	of or found in river	नदी संबंधी
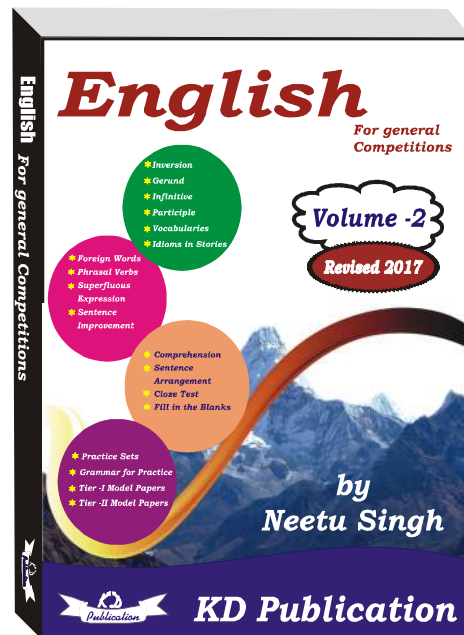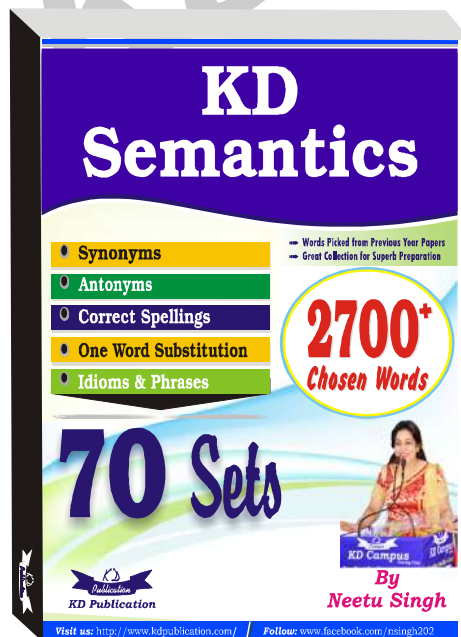
SSC (GD) MOCK TEST - 12 (ANSWER KEY)

—— Answer key ——

1. (B)	11. (C)	21. (B)	31. (A)	41. (D)	51. (D)	61. (A)	71. (C)
2. (A)	12. (B)	22. (C)	32. (C)	42. (D)	52. (C)	62. (C)	72. (B)
3. (B)	13. (A)	23. (D)	33. (C)	43. (A)	53. (C)	63. (B)	73. (D)
4. (D)	14. (D)	24. (C)	34. (D)	44. (B)	54. (B)	64. (D)	74. (B)
5. (C)	15. (D)	25. (C)	35. (D)	45. (A)	55. (D)	65. (A)	75. (A)
6. (D)	16. (C)	26. (A)	36. (C)	46. (B)	56. (C)	66. (C)	
7. (B)	17. (A)	27. (D)	37. (D)	47. (D)	57. (B)	67. (B)	
8. (B)	18. (D)	28. (D)	38. (D)	48. (B)	58. (D)	68. (D)	
9. (A)	19. (B)	29. (D)	39. (B)	49. (A)	59. (C)	69. (A)	
10. (B)	20. (A)	30. (D)	40. (A)	50. (A)	60. (B)	70. (B)	

Hindi   English

Hindi			English		
76. (C)	85. (C)	94. (B)	76. (C)	86. (C)	96. (D)
77. (C)	86. (A)	95. (B)	77. (B)	87. (C)	97. (B)
78. (C)	87. (B)	96. (A)	78. (B)	88. (C)	98. (A)
79. (D)	88. (A)	97. (D)	79. (B)	89. (B)	99. (D)
80. (C)	89. (C)	98. (B)	80. (B)	90. (A)	100.(C)
81. (A)	90. (C)	99. (C)	81. (B)	91. (B)	
82. (B)	91. (A)	100.(D)	82. (D)	92. (D)	
83. (B)	92. (C)		83. (A)	93. (C)	
84. (A)	93. (D)		84. (B)	94. (D)	
			85. (A)	95. (A)	