SSC MOCK TEST – 231 (SOLUTION)

1. (C) As, $17 \times 6 = 102$
   Similarly,
   $23 \times 6 = \textbf{138}$

2. (C) Player is a member of team whereas minister is a member of council.

3. (D) As, D F I M : W U R N
   (Opposite letters)
   Similarly, G K N P : T P M K
   Opposite letter

4. (B) As, $8 + 15 + 9 = 32$
   Similarly, $4 + 16 + 12 = 32$

5. (B) As, $(3 + 5) \times 2 = 16$
   Similarly, $(7 + 9) \times 2 = 32$

6. (C) As, C L E A N : 14 1 5 12 3
   Similarly, J O K E : 5 11 15 10

7. (D) Sickness → Hospital → Doctor → Medicine store → Recovery → Home

8. (D)

9. (A)
   BOP (+1) DPN (+1) FQL (+1) HRJ (+1) **JSH**
   +2 −2 +2 −2 +2 −2 +2 −2

10. (D) 7 11 18 29 **47** 76
    +4 +7 +11 +18 +29

11. (A) S.P = ₹4140, P% = 15
    CP = $4140 \times \dfrac{100}{115}$ = ₹3600
    New   S.P = 3600×1.25 = ₹4500

12. (B) 29

13. (C) $60 \times 10 \div 40 + 6 - 5$
    After changing the signs,
    $\Rightarrow 60 \div 10 + 40 - 6 \times 5$
    $\Rightarrow 6 + 40 - 30 = 16$

14. (C) J 3 L 9 N 30 5 K

15. (C)

16. (B) As,
    $4 * 5 \% 3 = (4 \times 5)^3$
    $= 8000$
    And, $2 * 3 \% 2 = (2 \times 3)^2 = 36$
    Similarly,
    $4 * 3 \% 3 = (4 \times 3)^3 = \textbf{1728}$

17. (A) Required number of pens = $19 + 4 = \textbf{23}$

18. (B) 4   1 3
         4   2 6
    If 5 is at bottom, then 4 is at the top.

19. (C) As, $(19 + 20) \times 2 = 78$
    $(25 + 47) \times 2 = 144$
    Similarly, $(16 + 13) \times 2 = \textbf{58}$

20. (B) Position of Palak from right end
    $= 74 - (27 + 7) + 1 = 41$

21. (C) SALTY

22. (C)   23. (B)

24. (D)   25. (D)

26. (D) Middle East Countries - Iran, Israel, Turkey, Saudi Arabia, Syria, UAE, Lebanon, Qatar, Palestine, Kuwait, Oman, Yemen, Bahrain and Cyprus.
    Somalia is a East African country.

27. (A) Objectives: Promoting appropriate practice, care and institutional service utilization during pregnancy, delivery and lactation, encouraging the women to follow (optimal) nutrition and feeding practices, including early and exclusive breastfeeding for the first six months; and providing cash incentives for improved health and nutrition to pregnant and lactating mothers.
    Sukanya Samriddhi Scheme encourages parents to build a fund for the future education and marriage expenses for their female child. It was launched on 22 January 2015 as a part of the Beti Bachao, Beti Padhao campaign.
    Swadhar Greh Scheme for rehabilitation of women in difficult circumstances. The scheme covers women who are deserted and without any social and economic support, women victims of domestic violence, family tension and natural disaster.

28. (B) A fixed exchange rate(pegged exchange rate) is a type of exchange rate regime in which a currency's value is fixed or pegged by a monetary authority against the value of another currency.
    The real exchange rate is the relative price of foreign goods in terms of domestic goods.
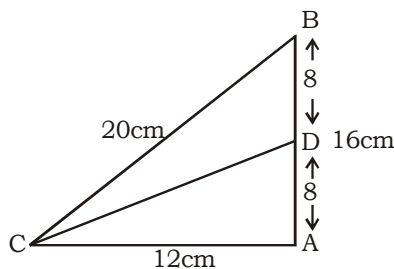
29. (C) Sashastra Seema Bal - Indo - Nepal Border and Indo-Bhutan Border.

30. (A) The South Asian Free Trade Area (SAFTA) is an agreement reached on January 6, 2004, at the 12th SAARC summit in Islamabad, Pakistan. It created a free trade area of 1.6 billion people in Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka to reduce customs duties of all traded goods to zero by the year 2016. It came into force on January 1, 2006 .

34. (A) The author of the novel 'An Affair Downstairs' is Sherri Browning Erwin.

37. (B) Trees and animals were worshipped by the Harappans.

40. (C) It is also levied on State Government.

41. (A) Variola Virus - Smallpox
Cytomegalo Virus - STD disease
Ebola virus that causes severe bleeding, organ failure and can lead to death.

43. (D) Blue to Red - Acid
Red to Blue - Base

45. (A) Facilitation, the process by which an organism profits from the presence of another, such as nurse plants that provide shade for new seedlings or saplings.
Guttation - the secretion of droplets of water from the pores of plants.

46. (B) $F = ma = m(v – u)/t = 4(25 – 15)/5 = 8$

50. (A) Bombay Stock Exchange was established on 9 July 1875. Its chairman is Vikramajit Sen. Its MD and CEO is Ashishkumar Chauhan.

51. (B) A.T.Q,

$$\frac{104}{100} \times \frac{104}{(104 + 100)} \times x = 70560$$

$$\Rightarrow \frac{26}{25} \times \frac{26}{51} \times x = 70560$$

$$\Rightarrow x = ₹133083$$

52. (A)

In ∆ACB

$$CD = \sqrt{12^2 + 8^2}$$

$$CD = \sqrt{144 + 64} = 4\sqrt{13} \text{ cm}$$

53. (D) $7\dfrac{1}{2} \times \left(3\dfrac{1}{5} \div 4\dfrac{1}{2} \text{ of } 5\dfrac{1}{3}\right) +$

$\left[11 - \left(\dfrac{5}{8} + 3 - 1\dfrac{1}{4}\right)\right] \div 5\dfrac{3}{4} - 5 \div 5 \times 5 \text{ of } 5 \div 25$

$\Rightarrow \dfrac{15}{2} \times \left[\dfrac{16}{5} \div 24\right] + \left[11 - \left(\dfrac{5}{8} + 3 - \dfrac{5}{4}\right)\right] \div$

$5\dfrac{3}{4} - 5 \div 5 \times 25 \div 25$

$\Rightarrow \dfrac{15}{2} \times \dfrac{2}{15} + \left[11 - \dfrac{19}{8}\right] \div \dfrac{23}{4} - 1 \times 1$

$\Rightarrow 1 + \dfrac{69}{8} \div \dfrac{23}{4} - 1$

$\Rightarrow \dfrac{69}{8} \times \dfrac{4}{23} = \dfrac{3}{2} = 1\dfrac{1}{2}$

54. (A) $\cos^2\theta - 3\cos\theta + 2 = \sin^2\theta$
$\Rightarrow \cos^2\theta - 3\cos\theta + 2 = 1 - \cos^2\theta$
$\Rightarrow 2\cos^2\theta - 3\cos\theta + 1 = 0$
$\Rightarrow (2\cos\theta - 1)(\cos\theta - 1) = 0$
$2\cos\theta - 1 = 0, \cos\theta - 1 \neq 0$
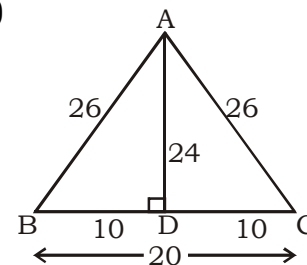
$\cos\theta = \dfrac{1}{2} \Rightarrow \theta = 60°$

Now, $2\csc\theta + 4\cot\theta$
$\Rightarrow 2\csc 60° + 4\cot 60°$

$\Rightarrow 2 \times \dfrac{2}{\sqrt{3}} + 4 \times \dfrac{1}{\sqrt{3}}$

$\Rightarrow \dfrac{4}{\sqrt{3}} + \dfrac{4}{\sqrt{3}} = \dfrac{8}{\sqrt{3}} = \dfrac{8\sqrt{3}}{3}$

55. (D)

Given that, BC = 20cm and
AD = 24cm
In ∆ABD
$AB^2 = BD^2 + AD^2$
$\Rightarrow AB^2 = 10^2 + 24^2$
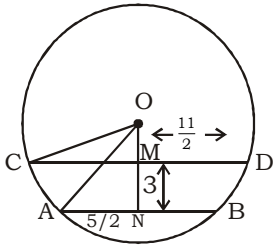$\Rightarrow AB^2 = 100 + 576 \Rightarrow AB = 26$
∴ AB = AC = 26 cm

56. (C) Efficiencies of A, B and C = 3 : 5 : 1

Total work = 10 × (3 + 5 + 1) = 90

Work done by A and B in 6 days

= 6 × (3 + 5) = 48

Remaining work = 90 – 48 = 42

Remaining work done by C = $\dfrac{42}{1}$ = 21 days

57. (B) ATQ,

Let OM = x cm

$(OA)^2 = \left(\dfrac{5}{2}\right)^2 + (3 + x)^2$

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

Now, $OA^2 = OC^2$

$\Rightarrow \left(\dfrac{5}{2}\right)^2 + (3+x)^2 = \left(\dfrac{11}{2}\right)^2 + x^2$

$\Rightarrow \dfrac{25}{4} + 9 + x^2 + 6x = \dfrac{121}{4} + x^2$

$\Rightarrow 6x = \dfrac{121}{4} - \dfrac{25}{4} - 9$

$\Rightarrow 6x = 15 \Rightarrow x = \dfrac{5}{2}$

Radius of a circle

$= \sqrt{\left(\dfrac{11}{2}\right)^2 + \left(\dfrac{5}{2}\right)^2} = \sqrt{\dfrac{121}{4} + \dfrac{25}{4}} = \sqrt{\dfrac{146}{4}}$

$= \dfrac{\sqrt{146}}{2}$

Diameter of a circle $= 2 \times \dfrac{\sqrt{146}}{2} = \sqrt{146}$

58. (D) Let C.P = 100, S.P = 120

A.T.Q,

M.P $= 120 \times \dfrac{100}{80} \times \dfrac{100}{93.75}$

M.P = 160

The required percent = 160 – 100

= 60%

59. (B) $\sin^2 30°. \cos^2 45° + 4\tan^2 30° + \dfrac{1}{2}\sin^2 90°$

$+ 2\cos 90°$

$\Rightarrow \left(\dfrac{1}{2}\right)^2 \times \left(\dfrac{1}{\sqrt{2}}\right)^2 + 4 \times \left(\dfrac{1}{\sqrt{3}}\right)^2 + \dfrac{1}{2} \times (1)^2 + 2 \times 0$

$\Rightarrow \dfrac{1}{4} \times \dfrac{1}{2} + 4 \times \dfrac{1}{3} + \dfrac{1}{2}$

$\Rightarrow \dfrac{1}{8} + \dfrac{4}{3} + \dfrac{1}{2}$

$\Rightarrow \dfrac{3 + 32 + 12}{24} = \dfrac{47}{24}$

60. (B) $\dfrac{7x}{(2x^2 + 6x - 2)} = 1$

On dividing by x in numerator and denominator,

$\Rightarrow \dfrac{7}{2x + 6 - \dfrac{2}{x}} = 1$

$\Rightarrow 2x + 6 - \dfrac{2}{x} = 7 \Rightarrow 2\left(x - \dfrac{1}{x}\right) = 1$

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

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

$\Rightarrow x^2 + \dfrac{1}{x^2} = \dfrac{1}{4} + 2$

$\Rightarrow x^2 + \dfrac{1}{x^2} = \dfrac{9}{4}$

$\Rightarrow x^2 + \dfrac{1}{x^2} + 2 = \dfrac{9}{4} + 2$

$\Rightarrow \left(x + \dfrac{1}{x}\right)^2 = \dfrac{17}{4} \Rightarrow x + \dfrac{1}{x} = \dfrac{\sqrt{17}}{2}$

Now, $x^3 + \dfrac{1}{x^3} \Rightarrow \left(\dfrac{\sqrt{17}}{2}\right)^3 - 3 \times \dfrac{\sqrt{17}}{2}$

$\Rightarrow \dfrac{17\sqrt{17}}{8} - \dfrac{3\sqrt{17}}{2} = \dfrac{5\sqrt{17}}{8}$

61. (D) A : B = 7 : 12, B : C = 8 : 5

$$\begin{array}{ccccc} A & : & B & : & C \\ 7 & : & 12 & \rightarrow & \mathbf{12} \\ \mathbf{8} & \leftarrow & 8 & : & 5 \\ \hline 56 & : & 96 & : & 60 \\ \hline 14 & : & 24 & : & 15 \end{array}$$

ATQ.,

(15 – 14) units = 856

1 unit = 856

∴ x = (14 + 24 + 15) × 856

x = 53 × 856 = 45,368

62. (A) Let 10th number = x

9th number = $x - 3$

11th number = $x + 2$

12th number = $x + 3$

A.T.Q.,

4×53.4 + 4×54.6 + $(x - 3)$ + x + $(x + 2)$ + $(x + 3)$ = 55.5×12

$\Rightarrow$ 213.6 + 218.4 + 4x + 2 = 666

$\Rightarrow$ 4x = 232 $\Rightarrow x$ = 58

∴10th number = 58

12th number = 58 + 3 = 61

The required average $= \dfrac{58+61}{2} = 59.5$

63. (B) Let speed of train A = x km/hr

speed of train B = $(x - 25)$ km/hr

A.T.Q.,

$$\dfrac{250}{x-25} - \dfrac{300}{x} = 4$$

On solving, x = 50

Speed of train A = 50 km/hr

Hence, speed of train B = 25 km/hr

64. (A)

$$\begin{array}{ccc} A & & B \\ \downarrow & & \downarrow \\ 140 & + & 100 = 240 \\ \downarrow 25\% & & \downarrow 40\% \\ \text{increase} & & \text{increase} \\ 175 & + & 140 = 315 \end{array}$$

The required percentage increase

$= \dfrac{315-240}{240} \times 100 = 31.25$

65. (C) Let r the be the radius and H be the height of the cylinder
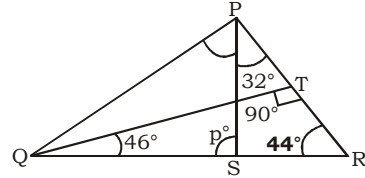
A.T.Q.,

$$\dfrac{\pi r^2 H}{2\pi r H} = \dfrac{1848}{528} \Rightarrow \dfrac{r}{2} = \dfrac{7}{2} \Rightarrow r = 7 \text{cm}$$

putting r = 7, then 2πrH = 528

$$\Rightarrow H = \dfrac{528 \times 7}{22 \times 14} = 12 \text{ cm}$$

Required ratio $= \dfrac{\text{Radius}}{\text{Height}} = \dfrac{7}{12} = 7:12$

66. (C)

In ΔQTR :-

46º + 90º + ∠R = 180° $\Rightarrow$ ∠R = 44°

In ΔPSR :-

∠PRS + ∠RSP + ∠SPR = 180º

$\Rightarrow$ 44º + ∠RSP + 32º = 180º

$\Rightarrow$ ∠RSP = 104º

∴ ∠PSQ (p°) = 180° – 104 = 76°

67. (C) Let the two diagonals of rhombus are 10x and 7x.

Area of rhombus

$= \dfrac{1}{2} \times 10x \times 7x = 35x^2$

∴ Required ratio = 35x^2 : (10x)²

$\Rightarrow$ 7 : 20

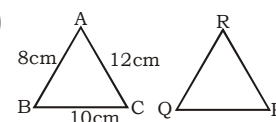68. (C) a : b = 3 : 2

Let a = 3x, b = 2x

Now, $\dfrac{5a+2b}{3a+4b} \Rightarrow \dfrac{5 \times 3x + 2 \times 2x}{3 \times 3x + 4 \times 2x}$

$\Rightarrow \dfrac{15x+4x}{9x+8x} \Rightarrow \dfrac{19x}{17x} = 19 : 17$

69. (C)

Given that $ar(\Delta ABC) : ar(\Delta PQR)$

= 9 : 4

A.T.Q.,

$\left(\dfrac{BC}{PQ}\right)^2 = \dfrac{ar(ABC)}{ar(RPQ)} \Rightarrow \left(\dfrac{10}{PQ}\right)^2 = \dfrac{25}{16}$

$\Rightarrow \dfrac{10}{PQ} = \dfrac{5}{4} \Rightarrow PQ = 8 \text{ cm}$

70. (D) Volume decreased

$$= \left(100 - 100 \times \frac{70}{100} \times \frac{70}{100} \times \frac{70}{100}\right)$$

= (100 – 34.3) = 65.7%

71. (C) a + b + c = 15, ab + bc + ca = 67

Now,

$(a + b + c)^2 = a^2 + b^2 + c^2 + 2 (ab + bc + ca)$

$\Rightarrow 15^2 = a^2 + b^2 + c^2 + 2 \times 67$

$\Rightarrow a^2 + b^2 + c^2 = 225 – 134 = 91$

Now, $a^2 + b^2 + c^2 – 3abc$

$\Rightarrow (a+b+c)[a^2+b^2+c^2–(ab+bc+ca)]$

$\Rightarrow 15 [91 –67] \Rightarrow 15 \times 24 = 360$

72. (B) The required ratio

= (56 + 64) : (56 + 45) = 120 : 100

= 6 : 5

73. (C) Central angle of the sector

$$= \frac{45}{270} \times 360° = 60°$$

74. (A) The required percent

$$= \frac{(68 + 42) – 64}{68 + 42} \times 100$$

$$= \frac{110 – 64}{110} \times 100 = \frac{46}{110} \times 100$$

= 41.8%

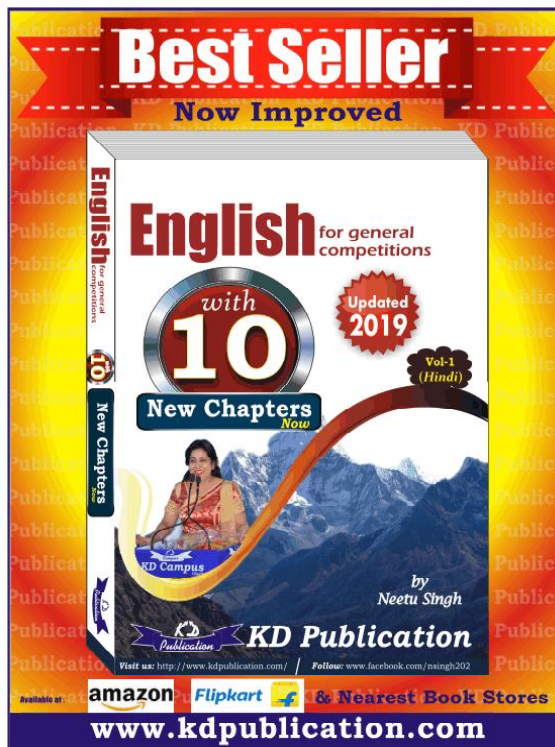75. (D) The required percent

$$= \frac{69 + 45 + 61}{280} \times 100$$

$$= \frac{175}{280} \times 100 = 62.5\%$$

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Amaxophobia	fear of being in or riding in a vehicle	वाहनो से डर
Anorexia	loss of appetite	क्षुधा-अभाव
Anosomia	loss of the sense of smell	घ्राणशक्ति का नाश
Aphasia	loss of speech due to medical problem	वाचाघात
Astrophobia	an abnormal fear stars and space	तारों और अंतरिक्ष से डर
Cacophobia	the fear of ugliness	बदसूरती से डर
Carouse	to drink alcohol, make noise, and have fun with other people	शराब के नशे में मौज मस्ती
Contrite	feeling or showing regret for bad behaviour	पश्चाताप
Cryptic	having or seeming to have a hidden meaning	गुप्त
Defiant	refusing to obey something or someone	घृष्ट
Disregard	ignoring something or treating something as unimportant	अवहेलना करना
Distinct	different in a way that you can see, hear, smell, feel, etc.	भिन्न होना
Dolent	sorrowful	निराश
Frolic	an enjoyable time or activity	मौज-मस्ती करना
Genophobia	the fear of sexual intercourse	शारारिक संबंध बनान से डर
Grieve	feel intense sorrow	दुखी होना, मातम मनाना
Hypogeusia	decreased sensitivity to taste	स्वाद अल्पता
Lucid	clear to the understanding	स्पष्ट
Oracular	hard to interpret	रहस्यमय
Overlook	to pay no attention to	ध्यान ने देना
Psephology	the scientific study of elections	चुनाव विश्लेषण
Pseudonym	a name that someone (such as a writer) uses instead of his or her real name	कृत्रिम नाम
Rueful	showing or feeling regret for something done	पश्चातापी
Unambiguous	clearly expressed or understood	स्पष्ट

SSC MOCK TEST - 231 (ANSWER KEY)

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

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76. (C) Replace 'others' with 'another'. One to another is the correct phrase.

77. (B) Use 'living' in spite of 'life'. Here we need an Adjective to qualify Noun 'Personalities'.

78. (D) Means to be end – to be a medium to achieve what you want.

79. (C) Protract- lasting for a long time

Propel- drive or push something forward.

86. (C) Sentence is a fact and hence will be in present tense. Patients (Plural Noun) will take Plural verb (become)

87. (B) Indistinguishable takes from Preposition.

CORRECTIONS OF MOCK TEST NO. 230 COMPREHENSION HAS BEEN CHANGED

Direction (98-100):

Pigeon racing has become increasingly popular in parts of China among the country's and its middle class. Sun Yan, the deputy general-secretary of Beijing Racing Pigeons Association, **(98)** that at least 100,000 pigeon breeders live in Beijing, and almost 90,000 of them are registered with Racing Pigeons Asociations at **(99)** levels, to qualify for the games held in the spring and autumn. Competitions can be lucrative for **(100)** owners, with some prizes amouting to tens of thousands of dollars. Liu said in recent years, pigeon racing has been surging in popularity across China.

98. **(A) said**   (B) clarified
     (C) told   (D) advised

99. **(A) different**   (B) differed
     (C) differential   (D) differ

100. (A) pigeons   (B) birds
     (C) animal   **(D) bird**

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