

2007, OUTRAM LINES, 1ST FLOOR, OPPOSITE MUKHERJEE NAGAR POLICE STATION, DELHI-110009

SSC MOCK TEST - 138 (SOLUTION)

- 1. (B) "Five Point Someone" is written by Chetan Bhagat and "Swami and Friends" is written by R.K. Narayan.
- 2. (C) $\underset{+9}{\underline{\text{BFJ}}} : \underset{+9}{\underline{\text{KOS}}} :: \underset{+9}{\underline{\text{KOS}}} : \underset{+9}{\underline{\text{TXB}}}$
- 3. (C) As, $14 \Rightarrow 14 \times 2 + 2 = 30$ Similarly, $16 \Rightarrow 16 \times 2 + 2 = 34$
- 4. (D) Z B D J L N Q S U N Q P
- 5. (A) Except Body, others are parts of body.
- 6. (A) **1356** \Rightarrow 1 + 3 + 5 + 6 \neq 25 5497 \Rightarrow 5 + 4 + 9 + 7 = 25 7864 \Rightarrow 8 + 7 + 6 + 4 = 25 9943 \Rightarrow 9 + 9 + 4 + 3 = 25
- 7. (D) Pemmafrost → Permanence → Permanent → Permeability.
- 8. (A) As, D I S O R D E R O S I D R E D R



9. (B) 14*6*3*5*4*20

From option (B), $14 + 6 \div 3 \times 5 - 4 = 20$

$$14 + 6 \div 3 \times 5 - 4 = 20$$

$$\Rightarrow 14 + 2 \times 5 - 4 = 20$$

$$\Rightarrow 14 + 10 - 4 = 20$$

- $\Rightarrow 14 + 10 4 = 0$ $\Rightarrow 20 = 20$
- \Rightarrow 20 = 20
- :. Option (B) is the right answer.
- 10. (C) Mohit > Kamal > Amit > Ramesh > **Rohit**Hence, Rohit is the shortest.
- 11. (B) $\xrightarrow{\mathrm{DJO}}$ $\xrightarrow{\mathrm{EKP}}$ $\xrightarrow{\mathrm{FLQ}}$ $\xrightarrow{\mathrm{GMR}}$ $\xrightarrow{\mathrm{HNS}}$
- 12. (C) \underline{PR} , \underline{VX} , \underline{BD} , \underline{HJ}
- 13. (C) $4, \frac{13}{\times 3+1}, \frac{40}{\times 3+1}, \frac{121}{\times 3+1}, \frac{364}{\times 3+1}$
- 14. (C) Neither I nor II follow.
- 15. (D) **Prem** > Raju > Sunder > Hari > Ompal Hence, Prem owns the highest share of land.

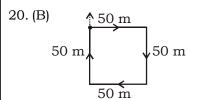
- 16. (D) $3^2 + 4^2 = 5^2$ $12^2 + 5^2 = 13^2$ $24^2 + 7^2 = 625$
 - = **25**²
- 17. (B) $6 \times 7 = 42$ $8 \times 4 = 32$ $9 \times 5 = 45$
- 18. (B) $81 \times 9 + 10 6 \div 5$

After changing the signs as per the given detail,

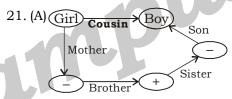
$$81 \div 9 - 10 \times 6 + 5$$

= $9 - 60 + 5$
= **- 46**

19. (D) abc / aabbcc / aaabbb



He is present at his original position.



- 22. (B) 23. (A)
- 24. (C) Computer

 Input device Mouse
- 25. (C) **H A I R Y** \downarrow \downarrow \downarrow \downarrow \downarrow 03, 33, 57, 78, 99
- 26. (D) A Gurpurab in Sikh tradition is a celebration of an anniversary related to the lives of the Sikh gurus. Observance of these anniversaries is an important feature of the Sikh way of life. This is one of the most sacred festivals in Sikh.
- 27. (C) Prime Minister Narendra Modi inaugurated the 60 MW (megawatt) Tuirial Hydroelectric Power Project in Aizawl, Mizoram. It is first large hydropower central government project to be commissioned in Mizoram.
- 29. (A) Jagat Prakash Nadda is an Indian politician. He is currently the Union



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Minister of Health and Family Welfare and member of Rajya Sabha from Himachal Pradesh and Parliamentary Board Secretary of Bharatiya Janata Party.

- Ravi Shankar Prasad: Minister of Electronics and Information Technology
- Ram Vilas Paswan: Minister of Consumer Affairs, Food and Public Distribution
- 30. (D) Mammals have adapted in many ways to survive the cold winter months. One way to survive the winter is by hibernation. Hibernation is when an animal goes into a deep sleep. The heart beat and breathing slows down. The body cools down. They don't eat food or drink water. Some Animals that Turn White for winter:
 - Arctic Foxes
 - Siberian Hamsters
 - Ptarmigans
 - Collared Lemmings
 - Peary Caribou
 - Hares
 - Weasels
- 31. (B) Collateral is a property or other asset that a borrower offers as a way for a lender to secure the loan. If the borrower stops making the promised loan payments, the lender can seize the collateral to recoup its losses.
- 32. (B) Harisena was the court poet of Samudragupta, who mentioned the achievements of Samudragupta in the Prayag-Prasasti inscription. He was an important figure in the court of the Gupta emperor, Samudragupta.
- 33. (C) The Moon appears to move completely around the celestial sphere once in about 27.3 days as observed from the Earth. This is called a sidereal month. It represents the orbital period of the Moon around the Earth.
- 34. (D) The months of October and November are known for retreating monsoons. During this season, the monsoon trough of low pressure turns weaker and is progressively replaced by high pressure. This results in the withdrawal of monsoon.
- 35. (D) Frogs aren't restricted to breathing only through their lungs. Frogs that spend the coldest times of the year inside of the mud or within rotten heaps of leaves receive their necessary oxygen through their skin. When frogs hibernate, they utilize the skin for breathing.

- 36. (C) In an average healthy adult, the volume of blood is about one-eleventh of the body weight. An average adult body with a weight of 150 to 180 pounds will contain approximately 4.7 to 5.5 liters (1.2 to 1.5 gallons) of blood. An average child with a body weight of 80 pounds will have approximately half the amount of blood as an adult.
- 38. (A) Cold Start is a military doctrine that was developed by the Indian Armed Forces for use in a possible war with Pakistan. Its objective is to foster initiative and creative thinking and links theory, history, experimentation and practice.
- 39. (B) The loan obtained from money lenders, relatives and friends, etc. constitutes to the 'informal sector' of credit. They can lend money at any rate of interest and adopt any means to recover back their money. They charge a much higher rate of interest than the lenders in the formal sector.
- 43. (B) Convex mirror is used as rear view in cars. Convex mirror is used in the form of erect and diminished image of vehicles coming from side/behind. Thus, it provides a wider field of view to the driver.
- 45. (C) Bombay High is an offshore oilfield 176 kilometers off the coast of Mumbai, India, in about 75 m of water. The oil operations are run by India's Oil and Natural Gas Corporation (ONGC).
- 46. (B) Jawaharlal Nehru proudly proclaimed the dams as the 'temples of modern India' as it was felt at that time that the construction of large dams would solve many problems of India. It would result in the generation of electricity, would provide water for irrigation to the farmers, supply water to household and industries.
- 49. (A) The frequency of sound waves is measured in hertz (Hz). Human beings can normally hear sounds with a frequency between about 30 Hz and 30,000 Hz. Sounds with frequencies above than 30,000 hertz are called Ultrasound. Ultrasound is too high-pitched for humans to hear.
- 50. (B) Graphite is soft and slippery because there are only weak intermolecular forces between its layers. Graphite is a good conductor of heat and electricity. This is because, like metals, graphite contains delocalised electrons. These electrons are free to move through the structure of the graphite.

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51. (C) Total discount = ₹ (820 – 570.72) = ₹ 249.28

First discount = 820 × $\frac{20}{100}$ = ₹ 164

- ∴ Second discount = ₹ (249.28 164) = ₹ 85.28
- Price of the article after the first discount = ₹ (820 164) = ₹ 656

If the second discount be x%, then x% of 656 = 85.28

$$\Rightarrow x = \frac{85.28 \times 100}{656} = 13\%$$

52. (D) Part of the tank filled in 3 minutes by pipes P and Q

$$= 3\left(\frac{1}{12} + \frac{1}{15}\right) = 3\left(\frac{5+4}{60}\right) = \frac{3\times9}{60} = \frac{9}{20}$$

Remaining part = $1 - \frac{9}{20} = \frac{11}{20}$

- $\therefore \text{ Time taken by Q} = \frac{11}{20} \times 15 = \frac{33}{4}$
- $= 8\frac{1}{4} \text{ minutes}$
- 53. (A) Number of books in each stack

= HCF of 336, 240, 96 = 48

240) 336 (1

<u>240</u>

96) 240 (2

<u> 192</u>

48) 96 (2

<u>96</u>

48) 96 (2

96 ×

: Total number of stacks

$$= \frac{336}{48} + \frac{240}{48} + \frac{96}{48}$$

= 7 + 5 + 2 = 14

54. (A) Volume of the block = $(10 \times 5 \times 2)$ cm³ = 100 cm³.

Volume of the cone carved out

$$= \left(\frac{1}{3} \times \frac{22}{7} \times 3 \times 3 \times 7\right) \text{cm}^3 = 66 \text{ cm}^3$$

- :. Wood wasted = (100 66)% = 34%
- 55. (D) Cost price of article = ₹ $\left(\frac{100}{95} \times 4085\right)$ = ₹ **4300**

56. (A) 5 tan $\theta = 4 \Rightarrow \tan \theta = \frac{4}{5} = \frac{\text{Perpendicular}}{\text{Base}}$

Now, $\frac{5\sin\theta - 3\cos\theta}{5\sin\theta + 3\cos\theta} = \frac{5\tan\theta - 3}{5\tan\theta + 3}$

 $= \frac{5 \times \frac{4}{5} - 3}{5 \times \frac{4}{5} + 3} = \frac{1}{7}$

57. (A) Let the speed of the stream be x miles/hr. Then,

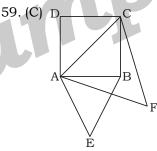
Speed downstream = (10 + x) miles/hr.

Speed upstream = (10 - x) miles/hr.

$$\therefore \frac{36}{(10-x)} - \frac{36}{(10+x)} = \frac{90}{60}$$

- \Leftrightarrow 72x × 60 = 90 (100 x^2)
- $\Leftrightarrow x^2 + 48x 100 = 0$
- \Leftrightarrow (x + 50)(x 2) = 0
- $\Leftrightarrow x = 2 \text{ mile/hr.}$
- 58. (C) $\frac{\sin 2\theta + \sin \theta}{\cos 2\theta + \cos \theta + 1} = \frac{2\sin \theta \cdot \cos \theta + \sin \theta}{2\cos^2 \theta 1 + \cos \theta + 1}$
 - $= \frac{\sin\theta(2\cos\theta+1)}{2\cos^2\theta+\cos\theta} = \frac{\sin\theta(2\cos\theta+1)}{\cos\theta(2\cos\theta+1)} = \frac{\sin\theta}{\cos\theta}$

= tan θ



Here $AC^2 = 2AB^2$

As \triangle ABE and \triangle ABC are equiangular so \triangle ABE ~ \triangle ABC

[The ratio of the areas of two similar triangles is equal to the ratio of the square of their corresponding sides]

 $\frac{\text{area of } (\Delta \text{ ABE})}{\text{area of } (\Delta \text{ ACF})} = \frac{\text{AB}^2}{\text{AC}^2} = \frac{\text{AB}^2}{2 \text{ AB}^2} = \frac{1}{2}$

60. (D) Let cost price = ₹ 100

Then, $\frac{2}{5}$ of Marked Price Selling price = 75

- ⇒ Marked Price = $₹\left(\frac{75 \times 5}{2}\right) = ₹\left(\frac{375}{2}\right)$
- \therefore Required ratio = $\frac{375}{2}$: 100
- = 375 : 200 = **15 : 8**



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61. (B) Let *x* is the no. of individuals who were covered. then,

Percentage of uncertain individuals

- = [100 (20 + 60)]% = 20%
- \therefore 60% of x 20% of x = 720
- \Leftrightarrow 40% of x = 720

$$\Leftrightarrow \frac{40}{100}x = 720 \Leftrightarrow x = \left(\frac{720 \times 100}{40}\right) = 1800$$

62. (D) ATQ,

$$\frac{13}{4} \times \frac{2}{3} - \left(\frac{9}{4} - \frac{5}{3}\right) \times \frac{3}{4}$$

$$=\frac{13}{6} - \left(\frac{27-20}{12}\right) \times \frac{3}{4}$$

$$=$$
 $\frac{13}{6} - \frac{7}{12} \times \frac{3}{4} = \frac{13}{6} - \frac{7}{16}$

$$= \frac{104 - 21}{48} = \frac{83}{48}$$

63. (A)
$$\frac{x}{y} + \frac{y}{x} = -2 \Rightarrow \frac{x^2 + y^2}{xy} = -2$$

$$\Rightarrow x^2 + y^2 = -2xy$$

$$\Rightarrow x^2 + y^2 + 2xy = 0$$

$$\Rightarrow (x + y)^2 = 0$$

$$\Rightarrow x + y = 0$$

$$\therefore$$
 $x^3 + y^3 + 3xy(x + y) = (x + y)^3 = 0$

64. (B)



Area of the shaded region= Area of square of side $6 \text{ cm} - 4 \times a$ right angled sector

$$= 36 - 4 \times \frac{\pi \times 3^2}{4}$$

$$= 36 - 9\pi = 9(4 - \pi) \text{ sq. cm}$$

65. (C) Let large number = x then Smaller number = 520 - x ATQ,

$$\frac{96x}{100} = \frac{(520 - x)}{100} \times 112$$

- \Rightarrow 96x = 520 × 112 112x
- \Rightarrow 112x + 96x = 520 × 112
- \Rightarrow 208 $x = 520 \times 112$

$$\Rightarrow x = \frac{520 \times 112}{208} = 280$$

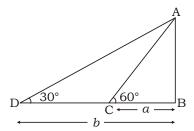
- : Smaller number
- = 520 280 = **240**

66. (C) Let AB be the tower Such that CB = a and BD = b

$$CB = a$$
 and $BD = b$
In $\triangle ABC$

$$\tan 60^{\circ} = \frac{AB}{BC} = \frac{AB}{a}$$

$$\Rightarrow$$
 AB = $a\sqrt{3}$...(i)
In ΔABD,



$$\tan 30^\circ = \frac{AB}{BD}$$

$$\Rightarrow \frac{1}{\sqrt{3}} = \frac{AB}{b}$$

...(ii)

From equations (i) and (ii)

$$(AB)^2 = ab \Rightarrow AB = \sqrt{ab}$$

67. (B) $m^2 - n^2 = (\tan \theta + \sin \theta)^2 - (\tan \theta - \sin \theta)^2$ = $4 \tan \theta \sin \theta$ [: $(a + b)^2 - (a - b^2) = 4ab$]

and
$$4\sqrt{mn} = 4\sqrt{(\tan\theta + \sin\theta)(\tan\theta - \sin\theta)}$$

$$= 4\sqrt{\tan^2\theta - \sin^2\theta}$$

$$= 4\sqrt{\frac{\sin^2\theta}{\cos^2\theta} - \sin^2\theta}$$

$$= 4\sqrt{\frac{\sin^2\theta - \sin^2\theta\cos^2\theta}{\cos^2\theta}}$$

$$= 4\sqrt{\frac{\sin^2\theta(1-\cos^2\theta)}{\cos^2\theta}}$$

$$= 4\sqrt{\frac{\sin^4 \theta}{\cos^2 \theta}} = 4\frac{\sin^2 \theta}{\cos \theta}$$

=
$$4 \sin \theta \frac{\sin \theta}{\cos \theta}$$
 = $4 \sin \theta \tan \theta$

$$\Rightarrow m^2 - n^2 = 4\sqrt{mn}$$

68. (C) Given series 1 + 3 + 5 + 7 + + 99

Number of terms between 1 to 99

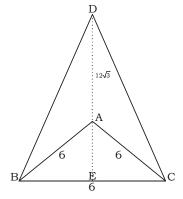
$$=\frac{1+99}{9}=50$$

So, sum of 50 terms/odd numbers

$$= 50^2 = 2500$$

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69. (A)



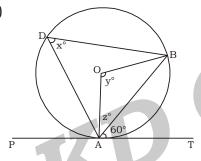
In the figure, equlateral traingle ABC is the base of the pyramid.

Where
$$AB = BC = CA = 6 \text{ cm}$$

- ⇒ Volume of the pyramid
- $= \frac{1}{3} \times \text{ base area} \times \text{height}$

=
$$\frac{1}{3} \times \frac{\sqrt{3}}{4} \times 6 \times 6 \times 12\sqrt{3} = 108 \text{ cm}^3$$

70. (C)



- x° is a angle in the alternative segment for $\angle BAT$
- $\Rightarrow \angle BAT = x = 60^{\circ}$
- y° is angle at centre and x° is angle in remaining arc
- $\Rightarrow y^{\circ} = x \times 2 = 120^{\circ}$
- \therefore In $\triangle OAB$, $\angle OBA = \angle OAB = z^{\circ}$
- $\Rightarrow y + z + z = 180^{\circ}$
- $\Rightarrow 120^{\circ} + 2z = 180^{\circ}$
- $\Rightarrow z = 30^{\circ}$
- 71. (B) Let B join the business for x months. ATQ,

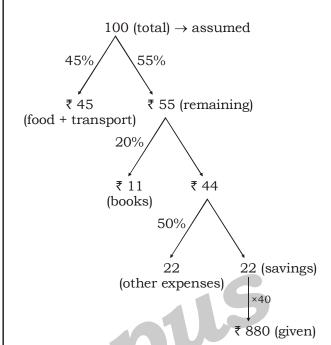
$$450 \times 12 : 300 \times x = 2 : 1$$

$$\Rightarrow \frac{5400}{300x} = \frac{2}{1}$$

 $\Rightarrow x = 9 \text{ months}$

Hence, after 12 - 9 = 3 months B joins the business.

72. (B)



73. (B) Total_B =
$$\frac{50,000 \times 10}{100}$$
 = 5000

Males are 30%, so females

$$= 100 - 30 = 70\%$$

Difference =
$$70 - 30 = 40\%$$

$$\therefore \text{ Required answer} = \frac{5000 \times 40}{100} = 2000$$

74. (A) Total males =
$$\frac{50,000}{100 \times 100} \{20 \times 50 + 10 \times 30 + 25 \times 20 + 15 \times 40 + 10 \times 60 + 20 \times 60 + 20 \times 60 \}$$

- $= 5\{1000 + 300 + 500 + 600 + 600 + 1000\}$
- = 5 × 4000 = **20,000**
- 75. (D) Total population in all six cities = 50,000 Total females in all six cities
 - = 50,000 20,000 = 30,000

:. Required % =
$$\frac{30,000}{50,000} \times 100 = 3 \times 20 = 60\%$$



MEANINGS IN ALPHABETICAL ORDER

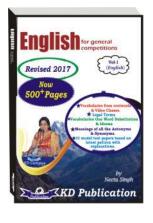
Word	Meaning in English	Meaning in Hindi
Bandit	A robber	डकैत
Bantered	Exchange remarks in a good-humoured teasing way	मजाक
Batter	Strike repeatedly with hard blows	जोर से बार-बार मारना
Brouhaha	A noisy and overexcited reaction or response to something	हो-हल्ला
Buzz	To make a low continuous humming sound like that of a bee	भिनभनाना
Concoction	An elaborate story, especially a fabricated one	मनगढ़तं कहानी
Conscript	Enlist (someone) compulsorily, typically into the armed services, recruit	अनिवार्य भर्ती
Dawdle	To move lackadaisically, to loitre with aim	समय गाँवाना, बिना मकसद के इधर-उधर घुमना
Eke out	To make something go further or last longer by using it frugally, to supplement	अतिरिक्त जुगाड़ करना
Envelop	To enclose or enfold completely with	ढंक लेना
Explicate	Analyse and develop (an idea or principle) in detail	समझाना
Fuddle	Confuse or stupefy (someone), especially with alcohol	मदोन्मत्त करना
Fuzzy	Indistinct or vague	अस्पष्ट
Imitate	То сору	नकल करना
Lode	A rich source of something	किसी चीज का समृद्ध स्रोत
Loiter	Stand or wait around without apparent purpose, Dawdle	इधर-उधर घूमना
Muffle	To wrap up so as to conceal or protect	छिपाना
Nomadic	Roaming about from place to place aimlessly,	घुमक्कड्
Nonplus	Surprise and confuse (someone) so much that they are unsure how to react	हैरान करना
Peripatetic	Moving or travelling from place to place	परिभ्रामी, घुमक्कड़
Provenance	The history of ownership of a valued object or work of art or literature	उत्पत्ति का इतिहास
Rattle	To make a rapid succession of short sharp noises	खड़-खड़ की आवाज करना
Recondite	Difficult to understand	समझने में मुश्किल
Saunter	Walk in a slow, relaxed manner, stroll	टहलना
Stupefy	Make (someone) unable to think or feel properly	मित मंद करना
Taciturn	One who talks less	अल्पभाषी
Trite	Hackneyed or boring from much use	घिसा-पिटा
Vanquish	Defeat thoroughly, overpower	जीतना
Wanderer	A person who travels aimlessly	घुमक्कड्

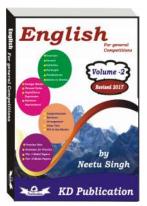


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SSC MOCK TEST - 138 (ANSWER KEY)

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



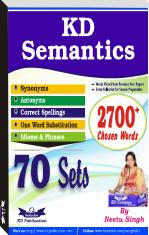






- 76. (D) 'No error' (Given sentence is in Simple Present Tense)
- 77. (C) This is a 'special conditions with should. Sometimes, we use 'should' in place of 'if'. Ex. If you stay here, you will meet him. Should you stay here, you will meet him.
- 78. (B) 'Eke out' is phrase which means 'to make something go further or last longer'.
- 95. (C) If two actions take place in the past, one after the others the first action will be in Past Perfect Tense and the second action in 'Simple Past Tense'. Hence replace 'left' with 'had left'





Note:- If your opinion differs regarding any answer, please message the mock test and question number to 8860330003

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