

KD Campus Pvt. Ltd

PLOT NO. 2 SSI, OPP METRO PILLAR 150, GT KARNAL ROAD, JAHANGIRPURI DELHI: 110033

SSC MOCK TEST - 167 (SOLUTION)

- (D) As, second is SI unit of time. Similarly, metre is SI unit of distance.
- 2. (B) As, $GT: 351 \rightarrow GT$ $7 \ 20 = (20)^2 - (7)^2 = 351$ Similarly, IR : \rightarrow I R 9 $18 = (18)^2 - (9)^2 = 243$

(A) As, $25:104 \rightarrow 52 \times 2 = 104$

Similarly, $36: 126 \to 63 \times 2 = 126$

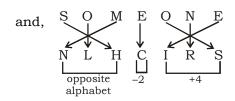
- (B) Except Param Veer Chakra, others are civilian awards.
- 5. (D)В D $4 \times 4 = 16$ $9 \div 3 = 3$
- (C) $23 19 \rightarrow 3^3 2^3 = 27 8 = 19$ 6. $14 - 63 \rightarrow 4^3 - 1^3 = 64 - 1 = 63$ **34 - 91** \rightarrow 4³ + 3³ = 64 + 27 = 91 $24 - 56 \rightarrow 4^3 - 2^3 = 64 - 8 = 56$
- (A) Eagerness, Earliness, Eastbound, 7. Ebonising, Efficient.
- 8. (C)
- 10. (B) 8m 4m
 - Point A is in north-east of E.
- 11. (D) Let the age of father and son be x and y respectively. ATQ.,

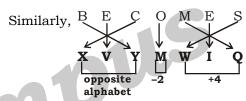
x + y = 36 and x : y = 3 : 1

 $\therefore x = \frac{3}{4} \times 36 = 27 \text{ yrs. and y = 9 yrs.}$

After 15 yrs their ages will be

- x = 27 + 15 = 42 yrsy = 9 + 15 = 24 yrs.
- ∴ Required ratio = 42 : 24 = 7:4
- 12. (B) Word '**Reaction**' cannot be made by using the letters of word 'Rehabilitation'.
- 13. (C) As,





- 14. (A) $28 \times 7 96 + 8 \div 12$ After inter-changing the signs as per given details, $28 + 7 \times 96 \div 8 - 12$ = 28 + 84 - 12= 100
- 15. (D) As, $12 \div 3 = 117 \rightarrow (12)^2 - (3)^3 = 144 - 27 = 117$ and, $21 \div 5 = 316 \rightarrow (21)^2 - (5)^3 = 441 -$ 125 = 316Similarly, $19 \div 4 \rightarrow (19)^2 - (4)^3 = 361 - 64$ = 297
- 16. (B) As, $8 + 4 = 12 \rightarrow (1 + 2)^2 = 9$ and, $7 + 8 = 15 \rightarrow (1 + 5)^2 = 36$ Similarly, $11 + 5 \rightarrow (1 + 6)^2 = 49$
- 17. (D) Acc. to Mohit, Birthday is after 15th. Acc. to Mohit's sister, birthday is after 12th and before 17th.
 - .. Mohit's mother birthday is on 16th August.
- 18. (C)
 - I. False
 - II. False
 - III. True
 - IV. False
 - Conclusion III follows.



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- 19. (A) Mother

 Mahi's friends ←→ Son-in-law

 Girl
 - Mahi's friend has no sister, the girl in the **daughter** of Mahi's friend.
- 20. (B) Position of R from left = Position of P from left + position of R from P = 11 + 9 = 20th Given R is in middle of P and Q.

 Position of R from right = 19 + 9 = 28th Total number of students = (20 + 28) 1 = 47
- 21. (D)
- 22. (B)
- 23. (C)
- 24. (D)
- 26. (A) The Dhole (also known as the Asiatic Wild Dog, Indian Wild Dog and the Red Dog) is an endangered wild dog native to the jungles of Asia. Although the dhole is very similar in appearance to the African wild dog and the Bush dog, the dhole is the only member of its genus.
- 27. (A) The Razmnama (Book of War) is a translation of the Sanskrit Mahabharata into Persian that was sponsored by the Mughal Emperor Akbar in the 1580s. The translation includes all eighteen books of the Mahabharata and the Harivamsa appendix. The translation is based primarily on the Devanagari version of the Sanskrit Mahabharata.
- 29. (A) The Ring of Fire is a string of volcanoes and sites of seismic activity or earthquakes, around the edges of the Pacific Ocean. Roughly 90% of all earthquakes occur along the Ring of Fire and the ring is dotted with 75% of all active volcanoes on Earth. Volcanoes are associated with the belt throughout its length. For this reason it is called the "Ring of Fire."
- 30. (A) The Sydney Opera House is a multivenue performing arts centre in Sydney, New South Wales, Australia. It is one of the 20th century's most famous and distinctive buildings. It was added to UNESCO's World Heritage List in 2007.
- 31. (A) The Third Five-year Plan, stressed agriculture and improvement in the production of wheat, but the brief Sino-Indian War of 1962 exposed weaknesses in the economy and shifted the focus towards the defence industry and the Indian Army. In 1965–1966, India fought a War with Pakistan.

- 32. (B) CCTV (closed-circuit television) is a TV system in which signals are not publicly distributed but are monitored, primarily for surveillance and security purposes.
- 33. (B) Goa, also known as the 'Pearl of the Orient', is located on the western coast of India in the coastal belt known as Konkan. Goa lies on the west coast of India the 25th State in the Union of States of India, were liberated from Portuguese rule in 1961 after a 500 year reign.
- 34. (C) On 1st August 1916, Annie Besant launched the Home Rule Movement along with Lokmanya (Bal Gangadhar Tilak).
- 35. (A) The reciprocal of resistance is conductance. If the unit of resistance is ohm, then the unit of conductance will be ohm-1 (O).
- 37. (C) Sound travels faster in winter due to the fact that in winter the density of air is 0.89 whereas in summer it's 1.29 which is much greater. So when sound travel in winter there are less collisions with the particle since the density is less.
- 39. (B) Panchsheel Pact or Five Principles of Peaceful Co-existence are a series of principles that have formed the basis of the relationship between India and China. The Five Principles, as stated by the Panchsheel Treaty, signed on April 29, 1954, are:
 - 1. Mutual respect for each other's territorial integrity and sovereignty
 - 2. Mutual non-aggression
 - 3. Mutual non-interference
 - 4. Equality and mutual benefit
 - 5. Peaceful co-existence
- 41. (A) International Monetary Fund (IMF) appointed India-born Geeta Gopinath as Economic Counsellor and Director of the IMF's Research Department. She is second Indian after Raghuram Rajan to be appointed as IMF chief economist.

International Monetary Fund (IMF)

- Formation: 27 December 1945
- Headquarters: Washington, D.C. U.S.
- Member Country: 189
- Managing Director (MD): Christine Lagarde
- 42. (A) In computing, an emulator is hardware or software that enables one computer system to behave like another computer system (called the guest).
- 44. (C) Barysphere: The interior of the Earth beneath the lithosphere, including both the mantle and the core. However, it is sometimes used to refer only to the core or only to the mantle.



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45. (A) The Monetary Policy Committee of India is a committee of the Reserve Bank of India that is responsible for fixing the benchmark interest rate in India.

Total Members = 6 3 Members = RBI 3 Members = GOI

- Urjit Patel Chetan Ghate
- Viral Acharya Pami Dua
- Michael Patra Ravindra H. Dholakia
- 48. (D) The Nobel Prize is a set of annual international awards bestowed in a number of categories by Swedish and Norwegian institutions in recognition of academic, cultural, and/or scientific advances.

"2018 Nobel Prize in Physiology or Medicine"

2018 Nobel Prize in Physiology or Medicine has been jointly awarded to James P. Allison and Tasuku Honjo, by the Nobel committee of the Karolinska Institute.

"2018 Nobel Prize in Physics"

- American scientist Arthur Ashkin, French engineer Gerard Mourou and English professor Donna Strickland have been awarded the Nobel Prize in Physics for their work in the field of laser physics.
- 50. (D) International Day of Older Persons is observed every year on 1st October. The theme for the 2018 celebration was "Celebrating Older Human Rights champions".
- 51. (D) $\sec^4\theta \tan^4\theta$ = $(\sec^2\theta - \tan^2\theta)(\sec^2\theta + \tan^2\theta)$...(i)

$$\sec^2\theta + \tan^2\theta = \frac{7}{12} \qquad \dots (ii)$$

Putting eq(ii) in eq(i)

$$\Rightarrow \sec^4\theta - \tan^4\theta = (1)\left(\frac{7}{12}\right) = \frac{7}{12}$$

52. (A) A.T.Q.,

$$15300 = \frac{25500 \times R \times 4}{100}$$

Compound interest on same amount for 2 years.

$$=25500\left(\left(1+\frac{15}{100}\right)^2-1\right)$$

$$=25500\left(\left(\frac{23}{20}\right)^2-1\right)$$

$$= 25500 \times \frac{129}{400}$$

53. (B) Misread marks = 40 + 41 + 57 = 138Actual mark = 52 + 63 + 71 = 186Difference of actual and misread marks = 186 - 138 = 48

Increase in average marks = $\frac{48}{24}$ = 2marks.

Required average = 56 + 2 = 58 marks.

54. (C)
$$\frac{\text{A'speed}}{\text{B'speed}} = \frac{\sqrt{\text{B'time}}}{\sqrt{\text{A'time}}}$$

$$\Rightarrow \frac{84}{B} = \sqrt{\frac{1 + \frac{4}{5}}{1 + \frac{1}{4}}}$$

$$\Rightarrow \frac{84}{B} = \sqrt{\frac{36}{25}}$$

$$\Rightarrow B = \frac{84 \times 5}{6} = 70 \text{ km/hr}.$$

55. (D) A.T.Q. Speed of boat = 15 km/hrSpeed of stream = 3 km/hr Let the distance covered be x km.

Then
$$\frac{x}{15+3} + \frac{x}{15-3} = \frac{150}{60}$$

$$\Rightarrow x \left(\frac{2+3}{36} \right) = \frac{5}{2}$$

- \Rightarrow x = 18 km. 56. (B) First digit is 10 which gives remainder 3 on being divided by 7. Last digit = 94

Total no. of terms is given by $a_n = a_1 + (n-1)d$ $9\ddot{4} = 10 + (n-1)7$

$$Sum = \frac{n}{2}(a + l)$$

$$=\frac{13}{2}(10+94)=676.$$

- 57. (C) A.T.Q.,
 - 2000×12 : 2400×8 : 3600×8 Ratio of investment = Ratio of profit share \therefore P:Q:R = 5:4:6

Share of P =
$$\frac{5}{15}$$
 × 900 = **₹300**

58. (A) L.C.M. of (14,13,12) = 1092 A.T.Q., when divided by 14 - 13 = 1

$$y 14 - 13 = 1$$

$$13 - 12 = 1$$

$$13 - 12 = 1$$

 $12 - 11 = 1$

their difference is common

Required number = 1092 - 1 = 1091.



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59. (C)
$$\sqrt{21} - \sqrt{18} \Rightarrow \frac{(\sqrt{21} - \sqrt{18})(\sqrt{21} + \sqrt{18})}{\sqrt{21} + \sqrt{18}} = \frac{3}{\sqrt{21} + \sqrt{18}}$$

$$\sqrt{35} - \sqrt{32} \Rightarrow \frac{\left(\sqrt{35} - \sqrt{32}\right)\left(\sqrt{35} + \sqrt{32}\right)}{\sqrt{35} + \sqrt{32}} = \frac{3}{\sqrt{35} + \sqrt{32}}$$

$$\sqrt{23} - \sqrt{20} \Rightarrow \frac{\left(\sqrt{23} - \sqrt{20}\right)\left(\sqrt{23} + \sqrt{20}\right)}{\sqrt{23} + \sqrt{20}} = \frac{3}{\sqrt{23} + \sqrt{20}}$$

$$\sqrt{27} - \sqrt{24} \Rightarrow \frac{\left(\sqrt{27} - \sqrt{24}\right)\left(\sqrt{27} + \sqrt{24}\right)}{\sqrt{27} + \sqrt{24}} = \frac{3}{\sqrt{27} + \sqrt{24}}$$

 $\frac{3}{\sqrt{21} + \sqrt{18}}$ is the largest because, same numerator is divided by smallest denominator.

60. (C)
$$\frac{12}{3+\sqrt{5}+2\sqrt{2}}$$

$$=\frac{12(3+\sqrt{5}-2\sqrt{2})}{(3+\sqrt{5}+2\sqrt{2})(3+\sqrt{5}-2\sqrt{2})}$$

$$= \frac{12(3+\sqrt{5}-2\sqrt{2})}{(3+\sqrt{5})^2-(2\sqrt{2})^2} = \frac{12(3+\sqrt{5}-2\sqrt{2})}{6(\sqrt{5}+1)}$$

$$=\frac{2(3+\sqrt{5}-2\sqrt{2})(\sqrt{5}-1)}{(\sqrt{5}+1)(\sqrt{5}-1)}$$

$$= \frac{2(3\sqrt{5} + 5 - 2\sqrt{10} - 3 - \sqrt{5} + 2\sqrt{2})}{5 - 1}$$

$$= \frac{2 \times 2(\sqrt{5} + \sqrt{2} - \sqrt{10} + 1)}{4}$$

$$=\sqrt{5}+\sqrt{2}-\sqrt{10}+1$$

61. (A) Resultant Discount = $30 + 15 - \frac{30 \times 15}{100}$

$$SP = MP - 40.5\%$$
 of MP

$$\Rightarrow$$
 800 = MP $\left(\frac{59.5}{100}\right)$

$$\Rightarrow MP = \frac{800 \times 100}{59.5}$$

= ₹1344.53

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

A.1.Q.,

$$A - 6$$

 $B - 18$
 $C - 12$
 36
 2
 31

Time taken to type 1 page together = $\frac{36}{11}$

Required time = $\frac{36}{11} \times 396 = 1296 \text{ min}$ = 21.6 hrs.

- 63. (B) A
 - Required ratio = 1:2
- ∴ Required ratio = 1 : 264. (A) Least value for the smallest angle will be possible when other two angles are largest as possible.
 - largest angle is 75° (given)
- : Required angle = $180^{\circ} (75^{\circ} + 75^{\circ}) = 30^{\circ}$ 65. (D) $x^2 6x 1 = 0$
- Divide by x on both sides,

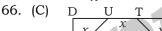
$$x - \frac{1}{x} = 6$$

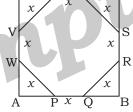
Squaring both sides,

$$\left(x - \frac{1}{x}\right)^2 = (6)^2$$

$$\Rightarrow x^2 + \frac{1}{x^2} - 2(x) \cdot \frac{1}{(x)} = 36$$

$$\Rightarrow x^2 + \frac{1}{x^2} = 38$$





Let the each side of this regular octagon be x.

A.T.Q.,

AP = WA

So, In ΔAWP :-

[∵ ABCD is a square]

$$AP = WA = \frac{x}{\sqrt{2}}$$

$$\therefore$$
 AP = BQ = $\frac{x}{\sqrt{2}}$

So,
$$AP + PQ + BQ = AB$$

$$\Rightarrow \frac{x}{\sqrt{2}} + x + \frac{x}{\sqrt{2}} = 3$$

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

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

$$\Rightarrow x = 3(\sqrt{2} - 1)$$

Area of Regular octagon = $2(\sqrt{2} + 1) \times x^2$

$$= 2(\sqrt{2} + 1) \times 9(\sqrt{2} - 1)^2$$

= 18(
$$\sqrt{2}$$
 -1) m²



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67. (A) Ratio of the volumes of cubes

= 1:1:8:27:27

 \Rightarrow Ratio of sides = 1 : 1 : 2 : 3 : 3 A.T.Q.,

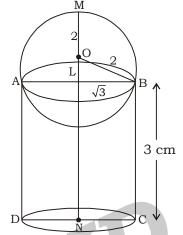
Volume of original cube = volume of these cubes

- \Rightarrow Volume of original cube = 64 unit³
- ⇒ Side of original cube = 4 unit So, the surface area of original cube = $6 \times 4^2 = 96$ unit²

Now, the surface area of all these five cubes = $6 \times (1 + 1 + 4 + 9 + 9)$ = 144 unit²

Required percentage = $\frac{144-96}{96} \times 100\%$ = **50%**

68. (B)



Let O be the centre of the sphere.

 \therefore OB = OM = 2 cm

Volume of the cylinder = 9π cm³.

- $\Rightarrow \pi r^2 \times 3 = 9\pi$
- $\Rightarrow r = \sqrt{3} \text{ cm}$

In ΔOLB :-

$$OL = \sqrt{OB^2 - LB^2}$$

- \Rightarrow OL = $\sqrt{2^2 (\sqrt{3})^2}$
- \Rightarrow OL = 1 cm

So, the required height (MN)

$$= (3 + 1 + 2) \text{ cm}$$

= 6 cm

69. (C) $5-4\cos^2\theta=6\sin\theta\cos\theta$

On dividing whole equation by $\cos^2\theta$ we get,

- \Rightarrow 5 sec² θ 4 = 6 tan θ
- $\Rightarrow 5(1 + \tan^2\theta) 4 = 6 \tan\theta$
- \Rightarrow 5 tan² θ 6tan θ + 1 = 0
- $\Rightarrow (5 \tan \theta 1)(\tan \theta 1) = 0$

So, $5 \tan \theta - 1 = 0$, $\therefore \tan \theta - 1 \neq 0$ as $\sin \theta \neq \cos \theta$

$$\Rightarrow \tan\theta = \frac{1}{5}$$

- 70. (B) $\frac{x}{y} + \frac{y}{x} = 1$
 - $\Rightarrow x^2 + y^2 = xy$
 - $\Rightarrow x^2 + y^2 xy = 0 \qquad ...(i)$

We know that $x^3 + y^3 = (x + y)(x^2 + y^2 - xy)$

...(from i)

- $\Rightarrow x^3 + y^3 = (x + y) \times (0)$
- $\therefore \quad \chi^3 + y^3 = \mathbf{0}$
- 71. (B) $4a^2 + 9b^2 + c^2 = 2(2a + 6b c) 6$
 - \Rightarrow $(2a)^2 4a + 1(3b)^2 12b + 4 + c^2 + 2c + 1 = 0$
 - ⇒ $(2a-1)^2 + (3b-2)^2 + (c+1)^2 = 0$ On comparing both sides, we get,

$$2a-1=0 \Rightarrow a=\frac{1}{2}$$

- $3b 2 = 0 \Rightarrow b = \frac{2}{3}$
- $c+1=0 \Rightarrow c=-1$
- $\therefore 6a 9b 4c = 6 \times \frac{1}{2} 9 \times \frac{2}{3} + 4$

= 1

72. (B) Budget estimated by the family on clothing and grocery together

= (20% + 8%) ×
$$\frac{32000}{100}$$
 = ₹8960

- 73. (C) Required difference = $\left(\frac{20\%}{100} \times 32000\right)$ _ 4672 = ₹1728
- 74. (A) Required difference = $\frac{(19-6)\%}{100}$ ×32000 = ₹4160.
- 75. (D) Required percent = $\left(\frac{\frac{19}{100} \times 32000 1920}{32000}\right) \times 100$ = $\frac{4160}{32000} \times 100 = 13\%$



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MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Exemplary	extremely good and deserved to be admired	अनुकरणीय
	and copied.	
Deplorable	very bad in a way that causes shock, fear, disgust	खेदजनक, निंदनीय
Unworthy	not good enough	अयोग्य
Vile	evil or immoral	दुष्ट
Divisiveness	causing a lot of disagreement between people	विभाजन
	and causing them to separate into different	
	groups	
Unison	a harmonious agreement	सामजंस्य
Impermeable	not allowing something to pass through	अभेद्य
Porous	having small holes so that liquid can pass through	1 झरझरा
Pervious	accessible, capable of being reached	प्रवेशक
Proscribe	not allow something	बहिष्कार करना
Expurgate	to change by removing part of something	शोधित करना (निकाल के)
Slain (V ₃)	to kill (by beheading)	मार डालना (गला काट कर)
Exterminate	to destroy completely	विनाश करना
Iconoclast	one who does not follow social norms	सामाजिक नियमो का पालन ना करने वाला
Monomania	mental illness especially when limited to one	एकोन्माद
	idea or object.	
Virtuoso	a very skillful person	कलाप्रवीण व्यक्ति
Aerophobia	fear or strong dislike of flying	जिसे उड़ान से डर लगता हो
Hydrophobia	fear of water	जलांतक
Entrepreneur	a person who starts a business and is willing	व्यवसायी
	to risk loss in order to make money	
Forfeit	something that is lost or given up as punishment,	जब्त करना
	confiscate	
Delineate	to clearly show or describe something	चित्रित करना
Muddle	to cause confusion in someone mind	गड़बड़
Mystified	to confuse someone completely	भ्रमित
Fawning	to show affection	चापलूस
Drivel	to speak rapidly, inarticulate	जल्दी-जल्दी बात करने वाला
Doral	saliva that comes out of mouth	लार
Articulate	one who can pronounce something clearly, orator	स्पष्ट, अच्छा वक्ता



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SSC MOCK TEST - 167 (ANSWER KEY)

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



- 76. (D) No error
- 77. (C) Change 'what do I want' into 'what I wanted' because when sentence starts with past sentence it continues in past tense. Here the sentence is not interrogative hence verb will come after the subject.
- 79. (A) Here his leadership has been pressed so exemplary is the most appropriate word.
- 78. (C) **give in:** to stop competing and accept the defeat, to surrender.

hold off: to delay.

- 90. (B) Change 'have reversed' into 'had reversed' because the sentence is in past tense where the structure is:- [had + V³rd form]
- 91. (B) Change 'baffle' into 'been baffled' because 'has/ have/ had' is always followed by V^{3rd} form. Here 'I' is not the does rather 'by unique mileage' is the subject. So passive voice should be used. 'Have been baffled is correct.
- 96. (D) 'described' is better option because the passage is in past tense.

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