## SSC MOCK TEST - 233 (SOLUTION)

1. (B)


Similarly,


2. (C) Frog is an amphibian whereas lizard is a reptile.
3. (D) As, $\frac{60}{4}=15$

Similarly, $\frac{100}{4}=\mathbf{2 5}$
4. (D) Except (D) all others are make a house.
5. (D) Except options (D) in all others are one or both number is odd.
6. (B)

$\mathrm{N}^{-2} \mathrm{~L} \xrightarrow{-3} \mathrm{I}$
$\mathrm{X} \xrightarrow{-3} \mathrm{U} \xrightarrow{-3} \mathrm{R}$
$\mathrm{Q} \xrightarrow{-3} \mathrm{~N} \xrightarrow{-3} \mathrm{~K}$
7. (D) Hectometer $\rightarrow$ Decameter $\rightarrow$ Decimeter $\rightarrow$ Centimeter $\rightarrow$ Millimeter
8. (D) As, $\mathrm{D}=4 \times 3$

And AGE $=(1+7+5) \times 3=39$
Similarly, $\mathrm{JADE}=(10+1+4+5) \times 3$
$=60$
9. (A)

10. (C)
11. (C) ATQ.,


Shortest distance between his current location and garage are 5 km .
12. (D)

13. (C)
14. (C)

$\therefore$ Chetan is brother of that girl.
15. (B) A.T.Q,

L N
Present age 7:5
and, present age of $\mathrm{N}=32-7$

$$
=25 \text { years }
$$

$\therefore 5$ units $=25$ years
$\Rightarrow 1$ unit $=5$ years
Then, present age of L

$$
=7 \times 5=35 \text { years }
$$

16. (A)


I. $(\times)$
II. ( $\times$ )

Neither conclusion I nor II follows.
17. (C) ATQ.,
$(3+14) \times 2=34$
$\Rightarrow(18+13) \times 2=62$
$\Rightarrow(27+x) \times 2=98$
$\Rightarrow x=22$
18. (A) $17 \times 15+3-11 \div 3=45$

After interchanging sign and numeric value from option (A)
$\Rightarrow 17+11 \times 3-15 \div 3$
$\Rightarrow \quad 17+33-5$
$\Rightarrow 45$
19. (B)
20. (B) As,


Similarly,

21. (A)
22. (D)
23. (A)
24. (B) In figure I and II,

| $\theta$ | $\beta$ | $\alpha$ |
| :--- | :--- | :--- |
| $\theta$ | $\delta$ | $\gamma$ |

Hence, $\alpha$ and $\beta$ will come on two faces marked 1 and 2.
25. (C)
26. (B) Kalaripayattu - Kerala

Chhau - Odisha
Lezim - Maharashtra
Bhavai is a folk theatre form of Western India (Gujarat).
27. (D) IMF (International Monetary Fund) - to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth and reduce poverty around the world.
ADB (Asian Development Bank) - to promote social and economic development in Asia.
AIIB (Asian Infrastructure Investment Bank) - to support the building of infrastructure in the Indo-Pacific region FATF (Financial Action Task Force) founded in 1989 on the initiative of G7, Headquartered in Paris. Its president is Xiangmin Liu.
31. (A) FPO is a process by which a company, which is already listed on an exchange, issues new shares to the investors or the existing shareholders, usually the promoters. It is used by companies to diversify their equity base.
32. (C) Part IV (36-51): Directive Principles of state policy are mentioned. DPSPs are taken from Ireland. Dr. B. R. Ambedkar described these principles as 'novel features' of the constitution.
33. (D) Authors- Gita Gopinath, Raghuram Rajan, Abhijit Banerjee and Mihir Sharma.
35. (D) Centripetal force is that acts on a body moving in a circular path and is directed towards the centre around which the body is moving. Ex- Twirling a lasso, spinning a ball on a string and turning a car. Centrifugal force - a force, arising from the body's inertia, which appears to act on a body moving in a circular path and is directed away from the centre around
which the body is moving. Ex- earth is revolving around the sun, a tetherball connected to a pole by a string and passengers feeling pushed outward on a merry-go-round, etc.
36. (C) Article 75 - Other provisions as to ministers.
Article 101 - Vacation of seats
Article 168 - Constitution of legislature in states
37. (D) Rourkela is the first intergrated steel plant. It was founded in 1955, with the help of Germany. Bhilri Steel Plant was setup with the help of the USSR in 1955 Durgapar Steel Plant was set up with the help of U.K in 1959.
All these are operated by SAIL (Steel Authority of India).
38. (C) 5 most populated countries of Asia China, India, Indonesia, Pakistan and Bangladesh. Maldives is the least populated country.
39. (B) Albert Bruce Sabin introduced an oral polio vaccine and came into use in 1961.
40. (C) When part of a chromosome is transferred to another chromose, the translocation occurs.
42. (B) Mass movement is the geomorphic process by which soil, land, regolith and rocks move downslope typically as a solid, continuous or discontinuous mass.
43. (B) An ocean current is a continuous, directed movement of sea water generated by number of forces acting upon the water, including wind, the coriolis effect, breaking moves, cabbeling and temperature and salinity differences.
45. (C) 1st - Denmark

2nd - Norway
3rd - Finland
46th - Ukraine
52nd - Saudi Arabia
46. (D) Some other awards -

T20 International - Deepak Chahar performance
Emerging Player - Marnus Labuschange Women's Cricket - Ellyse Perry of the Year
Women's ODI Player - Ellyse Perry
Women's Emerging Player - Chanida Sutthiruang
49. (B) Joseph Stalin announced the plan for Industrialization on 1 October, 1928.
50. (A) The Gujral Doctrine is a set of five principles to guide the conduct of foreign relations with India's immediate neighbours. These five principles arise from the belief that India's stature and strength cannot be isolated from the quality of its relations with its neighbours.
51. (B) $x\left(3-\frac{1}{x}\right)=\frac{3}{x}$
$3 x-1=\frac{3}{x} \Rightarrow\left(x-\frac{1}{x}\right)=\frac{1}{3}$
Squaring both sides,

$$
\begin{aligned}
& \left(x-\frac{1}{x}\right)^{2}=\left(\frac{1}{3}\right)^{2} \\
& x^{2}+\frac{1}{x^{2}}-2=\frac{1}{9} \\
& x^{2}+\frac{1}{x^{2}}=2+\frac{1}{9} \\
& x^{2}+\frac{1}{x^{2}}=\frac{19}{9}
\end{aligned}
$$

52. (A) $\mathrm{OP}=\frac{10}{2}=5 \mathrm{~cm}$
$\because \quad=\frac{5}{12} \times 12 \sqrt{2}=52 \mathrm{~cm}$
According to the tangent theorems
$\Rightarrow \angle \mathrm{APO}=90^{\circ}$
From right-angled $\triangle \mathrm{APO}$
$\Rightarrow \mathrm{OA}^{2}=\mathrm{AP}^{2}+\mathrm{OP}^{2}$
$\Rightarrow \mathrm{OA}^{2}=50+25=75$
$\Rightarrow \mathrm{OA}=\sqrt{75}=5 \sqrt{3}$
53. (D) Curved surface area $=22.22 \%$ of volume of cylinder
$\Rightarrow 2 \pi r h=\frac{2}{9} \times \pi r^{2} h$
$\Rightarrow r=9 \mathrm{~cm}$
$h=66.65 \%$ of radius $=\frac{2}{3} \times 9=6 \mathrm{~cm}$
$\therefore \quad$ Curved surface area $=2 \pi r h=2 \times \frac{22}{7} \times 9$
$\times 6=339.42 \mathrm{~cm}^{2}$
54. (D) $\mathrm{A}+\mathrm{C}=180^{\circ}$

$$
\begin{aligned}
& =\sin \left(\frac{A+B}{2}\right) \sin \frac{C}{2}+\cos \left(\frac{A+B}{2}\right) \cos \frac{C}{2} \\
& =\sin \left(\frac{180-C}{2}\right) \sin \frac{C}{2}+\cos \left(\frac{180-C}{2}\right) \cos \frac{C}{2}
\end{aligned}
$$

$=\sin \left(90-\frac{\mathrm{C}}{2}\right) \sin \frac{\mathrm{C}}{2}+\cos \left(90-\frac{\mathrm{C}}{2}\right) \cos \frac{\mathrm{C}}{2}$
$=\sin \left(\frac{C}{2}\right) \sin \frac{C}{2}+\sin \left(\frac{C}{2}\right) \cos \frac{C}{2}$

$$
[\sin (x+y)=\sin x \cos y+\cos x \sin y]
$$

$=\sin C$
55. (A) External volume of box $=80 \times 60 \times 40$
$=192000 \mathrm{~cm}^{3}$
Internal volume of box $=76 \times 56 \times 36$
$=153216 \mathrm{~cm}^{3}$
Volume of wood $=192000-153216$
$=38784 \mathrm{~cm}^{3}$
Weight of empty box $=38784 \times \frac{15}{1000}$
$=581.76 \mathrm{~kg}$
56. (C) Relative speed $=27+$ Speed of $T$
$\therefore \quad 4$ hours 45 minutes $=\frac{19}{4}$ hours
Relative speed $=380 \times \frac{19}{4}=80 \mathrm{~km} / \mathrm{h}$
Speed of T $=80.27=53 \mathrm{~km} / \mathrm{h}$
57. (C) Let total sales $=₹ x$

Bonus on sales $=1 \%$ of $4500=₹ 45$
Deposit after earning $=32345-45=₹$ 32300
Total commission $=15 \%$
$85 \%$ of $x=32300$
$\Rightarrow x=\frac{32300}{85} \times 100$
$\Rightarrow x=₹ 38000$
58. (A) Let the amount invested in simple interest be Rs. 100
Simple Interest $=\frac{\mathrm{P} \times \mathrm{R} \times \mathrm{T}}{100}$
$\Rightarrow \quad 32=\frac{100 \times R \times 4}{100}$
$\Rightarrow \mathrm{R}=8 \%$
Compound Interest $=P\left[1+\frac{R}{100}\right]^{n}-P$
$=24000\left[1+\frac{8}{100}\right]^{3}-P$
$=24000\left[\frac{27 \times 27 \times 27}{25 \times 25 \times 25}-1\right]$
$=₹ 6233.088 \approx ₹ 6233$
59. (D) ATQ.,
$\therefore \quad \pi(\mathrm{r} \times \mathrm{r} \times 7 \mathrm{r}-\mathrm{r} \times \mathrm{r} \times 3 \mathrm{r})=539$
$\Rightarrow \frac{22}{7} \times\left(4 \mathrm{r}^{3}\right)=539$
$\Rightarrow \mathrm{r}=\frac{7}{2}$
Height of the cylinder $=3 \times \frac{7}{2}=\frac{21}{2} \mathrm{~cm}$
60. (A)


$$
\cos \mathrm{A}=\frac{6^{2}+8^{2}-7^{2}}{2 \times 6 \times 7}==\frac{17}{32}
$$

$\angle \mathrm{BOC}=(180-\mathrm{A})$
Let $\mathrm{BD}=x$
$\therefore \quad \mathrm{DC}=7-\mathrm{x}$
$\mathrm{AD}^{2}=6^{2}-x^{2}-(7-x)^{2}$
$\Rightarrow 36-x^{2}=64-49-x^{2}+14 \mathrm{x}$
$\Rightarrow x=\frac{21}{14}=\frac{3}{2}$
Let $O D=y$
$\therefore \quad \mathrm{OB}=\sqrt{9^{2}+\frac{9}{4}}, \mathrm{OC}=\sqrt{9^{2}+\frac{121}{4}}$
In $\triangle B O C$,
$\cos (180-\mathrm{A})=\frac{\mathrm{OB}^{2}+\mathrm{OC}^{2}-\mathrm{BC}^{2}}{2 \times \mathrm{OB} \times \mathrm{OC}}$
$\Rightarrow-\cos A=\frac{9^{2}+\frac{9}{4}+9^{2}+\frac{121}{4}-49}{2 \sqrt{9^{2}+\frac{9}{4}} \sqrt{9^{2}+\frac{121}{4}}}$
$=\frac{-17}{32}$
On solving we get,
$\mathrm{OD}=\frac{11}{2 \sqrt{15}} \mathrm{~cm}$
61. (A) The required average

$$
=\frac{2250}{5}=450
$$

62. (A) The required Percent $=\frac{340}{2010} \times 100$

$$
=16.9 \%
$$

63. (A) The required ratio $=\frac{370+250}{420+430}$

$$
=\frac{620}{850}=\frac{62}{85}=62: 85
$$

64. (C) The required percent

$$
\begin{aligned}
& =\frac{430}{(310+370+420)} \times 100 \\
& =\frac{430}{1100} \times 100=39.1 \%
\end{aligned}
$$

65. (D) If $a^{3}+b^{3}+c^{3}-3 a b c=8$
$\Rightarrow x=2 a+b+c, y=(a+2 b+c)$ and $z$ $=(a+b+2 c)$
Put $\mathrm{b}=c=0$, then
$\Rightarrow a^{3}=8, x=2 a, y=a$ and $z=a$, then
$\Rightarrow x^{3}+y^{3}+z^{3}-3 x y z=(2 a)^{3}+a^{3}+a^{3}-3 \times$
$2 a \times a \times a$
$\Rightarrow 8 a^{3}+a^{3}+a^{3}-6 a^{3}=10 a^{3}-6 a^{3}$
$\Rightarrow 4 a^{3}=4 \times 8=32$
66. (A) Price at which he should sell $85 \%$ of product $=\frac{(300 \times 120)}{(85 \times 100)} \times 100$
$=\frac{36,000}{17}=₹ 423.53$
67. (D)

$\Rightarrow \tan 75^{\circ}=\frac{330+h}{h}$
$\Rightarrow 2+\sqrt{3}=\frac{330+h}{h}$
$\Rightarrow \mathrm{h}=165(\sqrt{3}-1)$
So, $H=165+165(\sqrt{3}-1)=165 \sqrt{3} \mathrm{~m}$
68. (B) Let present age of $\mathrm{Q}=9 x$ According to question;
$\frac{7 x-10}{9 x-10}=\frac{5}{7}$
$\Rightarrow 49 x-70=45 x-50$
$\Rightarrow x=5$
$9 x=45$
$\therefore \quad$ Present age of $\mathrm{Q}=45$ years
69. (A) Total marks initially $=40 \times 34=1360$
$\therefore$ Correct average $=\frac{1360-62+26}{40}$

$$
=33.1
$$

70. (C) Let the number is ₹ $x$

ATQ,

$$
\begin{aligned}
& (x+69)=\frac{103}{100} x \\
& \Rightarrow 100 x+6900=103 x
\end{aligned}
$$

$$
\Rightarrow \quad x=2300
$$

71. (C) Let first term $=\mathrm{A}$
and, common difference $=\mathrm{D}$
According to question,
$A+4 D=1$
$A+7 D=-17$
From (i) and (ii), we have
$D=-6, A=25$
Required Sum
$=\frac{13}{2}[2 \times 25+(13-1)(-6)]$
$=\frac{13}{2}(50-72)$
$=13 \times(-11)=-143$
72. (D) Let the co-ordinates of point $\mathrm{A}=(x, y)$
$\begin{array}{lll}\mathrm{B}(6,-4) & \mathrm{A}(\mathrm{x}, \mathrm{y}) & \mathrm{C}(0,8)\end{array}$
ATQ,
$x=\frac{6 \times 1+5 \times 0}{5+1}=1$
and, $y=\frac{-4 \times 1+5 \times 8}{5+1}=6$
$\therefore$ Co-ordinates of $A$ are $(1,6)$
73. (B) ATQ,

$$
\begin{aligned}
\frac{X Y}{P Q} & =\frac{\text { Perimeter of } \triangle X Y Z}{\text { Perimeter of } \triangle P Q R} \\
\Rightarrow \quad X Y & =27 \times \frac{4}{9}=12 \mathrm{~cm}
\end{aligned}
$$

74. (B) A : B : C

3:5:8
Required difference
$=\frac{(8-5)}{3+5+8} \times 3200=₹ 600$
75. (C) Net discount $=20+35-\frac{20 \times 35}{100}$
= 48\%

ATQ,
$(100-48)$ units $=50700$
$\Rightarrow 100$ units $=\frac{50700}{52} \times 100=97500$

## MEANINGS IN ALPHABETICAL ORDER

## Word

Aghast
Amused
Ascertain
Basophilia
Bestow
Chamois
Confer
Curtain
Determined
Envious
Imbibe
Impart
Penetralia
Persuade
Pursue
Regalia

Turquoise
Withdrawn
Wooing

Meaning in English
struck with terror or horror
pleasantly entertained or diverted
to find out or learn with certainty
tendency to stain with basic dyes
to put to use
an agile goat-antelope with short hooked horns
grant
that conceals or acts as a barrier
having made a firm decision
feeling or showing envy, jealous
absorb or assimilate
make (information) known
the innermost or most private parts
to move by argument, entreaty
to follow in order to overtake, capture, kill, or defeat
special clothes and decorations (such as a crown or scepter) for official ceremonies
a light greenish blue
removed from immediate contact or easy approach
to sue for the affection of and usually marriage with

Meaning in Hindi
क $\mathrm{T} \mathrm{T}^{\wedge}$ चक का
प्र स न
सु निश्चित क्रना
क्ष $T$ रग्र सिता
प्र दा न करना
स बर
प्र दा न करना
आ वरण, पदा ${ }^{\top}$
दृ ढ़ - निश्चय
ई ठ्य लु
स' ख ले ना
बता ना
अं दर का 4 TT ग
रा जि करना
पी छा करना
विश' ठा प" पा क

षि रा जा
अलग
प्र म दिख T ना , रिक्ष T

## SSC MOCK TEST - 233 (ANSWER KEY)

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


76.
(D) No error
77. (B) Use 'lower' in place of 'lowed'. Comparative degree will be used. We need an adjective here and as there is a comparison between two things.
78. (D) Proverb meaning : If one really wants to do something, one finds the way.
79. (B) Come off - to acquit oneself. Came about - to happen Come out - to go somewhere with someone for a social event.
87. (C) Selected - Choose as being best or most suitable. Selective - tending to choose carefully. We need an adjective here.


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

