## SSC MOCK TEST - 235 (SOLUTION)

1. (A) Tadpole is transformed into frog and caterpillar is transformed into butterfly.
2. (A)

3. (D) $6 \Rightarrow 6^{2}+2=38$ $11 \Rightarrow 11^{2}+2=123$
4. (A) $9612=9+6+1+2=18$ $1097=1+0+9+7=17$ $9413=9+4+1+3=17$ $4742=4+7+4+2=17$
5. (D) Except ear, all others are internal part of Humen body.
6. (C) Except option (C), In other options the positions of each letter is increased by 1.
7. (B)

|  | B | A | L | E | C | A | R | T | O | Y |
| ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Position | 2 | 1 | 12 | 5 | 3 | 1 | 18 | 20 | 15 | 25 |
| Position + 1 | 3 | 2 | 13 | 6 | 4 | 2 | 19 | 21 | 16 | 26 |
| $($ Position +1) | 9 | 4 | 169 | 36 | 16 | 4 | 361 | 441 | 256 | 676 |

8. (C) RATION
9. (A)

10. (A)

11. (B) After interchanging the signs, we have $40 \div 8 \times 7=5 \times 7=35$
12. (C) $24 \times 6=144 \Rightarrow \frac{144}{2}=72$
$152 \times 2=304 \Rightarrow \frac{304}{2}=152$
$9 \times 18=162 \Rightarrow \frac{162}{2}=81$
$\therefore \quad$ ? $=9$
13. (C) $8 \times 0.5+2=6$
$6 \times 1+3=9$
$9 \times 2+4=22$

$$
\begin{aligned}
& 22 \times 4+5=93 \\
& 93 \times 8+6=750
\end{aligned}
$$

14. (A) $\mathrm{T}=3+\left[\frac{2}{11}(3 \times 30+0)\right]$

$$
=3+\frac{180}{11}=3 \text { past } 16 \frac{4}{11} \mathrm{~min}
$$

15. (D) Gold and Zinc are different from each other but both are metal.
16. (B) The students union formation shall be a step towards giving to students the basic education in the field of politics. However, it shall create the same political atmosphere in the campus. Thus, both the arguments hold strong.
17. (B) As the numbers 2, 3, 4 and 5 are adjacent to 6 . Hence the number on the face opposite to 6 is 1 .
18. (D)


Required distance $(\mathrm{AE})=(28-6)$
$=22 \mathrm{kms}$
19. (C) The figure may be labelled as shown.


Simplest triangles are $\mathrm{ABJ}, \mathrm{ACJ}, \mathrm{BDH}$, DHF, CIE and GIE i.e. 6 in number.
20. (C) $B$ is the son of $A, C$ is the wife of $B, D$ is C's sister and E husband. So, C is the sister in law of E .
21. (D)

22. (D)
23. (A) In each row, the central part of the first figure rotates either $90^{\circ} \mathrm{CW}$ or $90^{\circ} \mathrm{ACW}$ to form the central part of the second figure and the central part of the first figure rotates through $180^{\circ}$ to form the central part of the third figure. Also, in each row, there are 3 types of side elements i.e., rectangles, circles and triangles.
24. (C)
25. (C)
29. (B) Sound under water is measured using a hydrophone.
A Hydrometer (Areometer) is an instrument that measures the relative density of liquids.
Relative density of liquids
$=\frac{\text { density of liquid }}{\text { density of water }}$
28. (A) Article 226 of the constitution empowers the high courts to issue wirte for the enforcement of fundamental rights and for any other purpose.
Appellate Jurisdiction is the power of an appellate court to review, amend and overrule decisions of a trial court or other hower tribunal. Advisory Jurisdiction is when a lower court seeks the advice of the higher court in a matter of law.
34. (C) Leucocytes (white blood cells) are the cells of the immune system that are involved in protecting the body against both infectious disease and foreign invaders. Erythrocytes (red blood cells) are the most common type of blood cell and the vertebrate's principal means of delivering oxygen $\left(\mathrm{O}_{2}\right)$ to the body tissuesvia blood flow through the circulatory system. Platelets, a component of blood whose function is initiating a blood clot.
35. (D) Exarch is the arrangement in which the proto xylem is directed towards the periphery and meta xylem towards the centre.
36. (A) Arthropoda is the largest animal phylum.
37. (D) A force is any interaction that, when unopposed, will change the motion of an object.
Acceleration is the rate of change of the velocity of an object with respect to time. Friction is the force resisting the relative motion of solid surfaces, fluid layers, and material elements sliding against each other.
40. (D) Metals react with oxygen to form metal oxides.
Metals reacts with water to form metal hydroxides.
41. (C) Sodium hydroxide ( NaOH ) - Causticsoda Maganesium hydroxide $\left(\mathrm{Mg}(\mathrm{OH})_{2}\right)$ Occures in nature as the mineral brucite. It is the common component of antacids.
Ammonium hydroxide $\left(\mathrm{NH}_{4} \mathrm{OH}\right)$ is known as ammonia water.
42. (C) Biomagnification, also known as bioamplification or biological magnification, is any concentration of a toxin, such as pesticides, in the tissues of tolerant organisms at successively higher levels in a food chain.
An Algal Bloom or algae bloom is a rapid increase or accumulation in the population of algae in freshwater or marine water systems, and is often recognized by the discoloration in the water from their pigments.
Eutrophication, or hypertrophication, is when a body of water becomes overly enriched with minerals and nutrients which induce excessive growth of algae. This process may result in oxygen depletion of the water body.
43. (D) International Red Cross Organization was formed by Henry Dunant the winner of first nobel prize in 1901. Frederic Passy was also awarded by Nobel prize in 1901.
44. (C) William Harvey was the first person to correctly describe blood circulation in the body.
Robert Boyle discovered that the volume of a gas decreases with increasing pressure and vice versa - Boyle's law.
45. (C) Order of precedence is President, Vice President, PM, Governor of State within their respective states, Former Presidents and Deputy PM, CJI and Speaker of LS.
48. (B) The author of the novel 'Half of a Yellow Sun' is Chimamanda Ngozi Adichie.
The author of the book 'Middle sex' is Jeffrey Eugenides.
49. (B) Human Development 2019

Ist - Norway
2nd - Switer land 129th - India
50. (A) Maitree Bus - India and Bangladesh.
51. (A) $\mathrm{A}+\mathrm{B} \quad 8$
$\mathrm{B}+\mathrm{C} \quad 12 \xrightarrow{2} 24$ units
$\mathrm{C}+\mathrm{A}$
$2(\mathrm{~A}+\mathrm{B}+\mathrm{C}) \rightarrow 8$ units
$\mathrm{A}+\mathrm{B}+\mathrm{C} \rightarrow 4$ units
$\therefore \quad$ Required number of days $=\frac{24}{4}=6$ days
52. (C) Product of two numbers $=$ L.C.M $\times$ H.C.F
$\Rightarrow \frac{24 \times 1224}{72}=$ other no.
$\Rightarrow \frac{1224 \times 1}{3}=$ other no. $\Rightarrow$ other no. $=408$
53. (C)


In the $\Delta A P B, A P$ can be found by pythagoras theorem.
$\mathrm{AP}^{2}+\mathrm{PB}^{2}=\mathrm{AB}^{2} \Rightarrow \mathrm{AP}^{2}+12^{2}=14^{2} \Rightarrow \mathrm{AP}$
$=\sqrt{52}$
In $\triangle$ PNB, we have
$\mathrm{PN}^{2}=\mathrm{PB}^{2}-\mathrm{BN}^{2} \Rightarrow \mathrm{~PB}^{2}-(14-\mathrm{AN})^{2}$
In $\Delta$ ANP,
$\mathrm{PN}^{2}=\mathrm{AP}^{2}-\mathrm{AN}^{2}$
Equating the eqs. (i) and (ii), we have
$\mathrm{PB}^{2}-(14-\mathrm{AN})^{2}=\mathrm{AP}^{2}-\mathrm{AN}^{2}$
$\Rightarrow 12^{2}-\left(196+\mathrm{AN}^{2}-28 \mathrm{AN}\right)=52-\mathrm{AN}^{2}$
$\Rightarrow 144-196-\mathrm{AN}^{2}+28 \mathrm{AN}=52-\mathrm{AN}^{2}$
$\Rightarrow-52+28 \mathrm{AN}=52$
$\Rightarrow 28 \mathrm{AN}=104 \Rightarrow \mathrm{AN}=\frac{104}{28}=\frac{26}{7}=3 \frac{5}{7}$
$\therefore \quad \mathrm{BN}=14-3 \frac{5}{7}=10 \frac{2}{7} \mathrm{~cm}$
54. (A) Let $x$ be the price of machine 3 years ago.
Its value after 1 year $=0.9 x$
Its value after 2 years $=0.9 x-0.9 \times 0.1 x$
$=0.81 x$
Its value after 3 years $=0.81 x \times 0.9$
$=0.729 x$
ATQ,
$0.729 x=7290 \Rightarrow x=10,000$
$\therefore 3$ years ago, price of the machine was ₹ 10,000 .
55. (A) Let the CP of the article be ₹ $x$, since he earns a profit of $20 \%$, hence $\mathrm{SP}=\mathrm{X}+$ $20 \%$ of $\mathrm{X}=1.2 x$.
It is given that he incurs loss by selling 16 articles at the cost of 12 articles
[loss $=(16-12) / 16=25 \%]$
His selling price $=\mathrm{SP}-25 \%$ of $\mathrm{SP}=\mathrm{SP} \times$ 0.75 ;

Hence, $\mathrm{SP} \times 0.75=1.2 \mathrm{X}$.
or, $\mathrm{SP}=(1.2 \times x / 0.75)=1.6 \mathrm{X}$.
This SP is arrived after giving a discount of $20 \%$ on MP.
Let MP = Y.
$\mathrm{Y}-20 \%$ of $\mathrm{Y}=\mathrm{SP}$
$0.80 \mathrm{Y}=1.6 \mathrm{X}$.
$\mathrm{Y}=2 \mathrm{X}$.

It means that the article has been marked $100 \%$ above the cost price.
56. (B) Relative speed $=(45+30) \mathrm{km} / \mathrm{hr}$
$=\left(75 \times \frac{5}{18}\right)=\left(\frac{125}{6}\right) \mathrm{m} / \mathrm{sec}$
We have to find the time taken by the slower train to pass the driver of the faster train and not the complete train.
So, distance covered = Length of the slower train
Therefore, Distance covered $=500 \mathrm{~m}$
$\therefore \quad$ Required time $=\left(500 \times \frac{6}{125}\right)=24 \mathrm{sec}$
57. (B) C.P. of 56 kg rice $=(26 \times 20+30 \times 36)$
$=(520+1080)$
= ₹ 1600
S.P. of 56 kg rice $=(56 \times 30)=₹ 1680$
$\therefore \quad$ Gain $=\left(\frac{80}{1600} \times 100\right) \%=5 \%$
58. (A) Unit digit in $(6374)^{1793}=$ Unit digit in (4) ${ }^{1793}$
$=$ Unit digit in $\left[\left(4^{2}\right)^{896} \times 4\right]$
$=$ Unit digit in $(6 \times 4)=4$
Unit digit in $(625)^{317}=$ Unit digit in $(5)^{317}=5$
Unit digit in $(341)^{491}=$ Unit digit in $(1)^{491}=1$
Required digit $=$ Unit digit in $(4 \times 5 \times 1)$ $=0$
59. (B) Total volume of water displaced
$=(4 \times 50)=200 \mathrm{~m}^{3}$
Rise in water level $=\left(\frac{200}{40 \times 20}\right)=0.25 \mathrm{~m}$

$$
=25 \mathrm{~cm}
$$

60. (D) Let the rate be R\% p.a.

Then, $\left(\frac{5000 \times \mathrm{R} \times 2}{100}\right)+\left(\frac{3000 \times \mathrm{R} \times 4}{100}\right)$
$=2200$
$\Rightarrow 100 \mathrm{R}+120 \mathrm{R}=2200$
$\Rightarrow \mathrm{R}=\left(\frac{2200}{220}\right)=10$
$\therefore \quad$ Rate $=10 \%$
61. (B) Let the investments be ₹ $x$ for 14 months, ₹ $y$ for 8 months and $₹ z$ for 7 months respectively.
Then, $14 x: 8 y: 7 z=5: 7: 8$
Now, $\frac{14 x}{8 y}=\frac{5}{7} \Leftrightarrow 98 x=40 y \Leftrightarrow y=\frac{49}{20} x$
and, $\frac{14 x}{7 z}=\frac{5}{8} \Leftrightarrow 112 x=35 z$
$\Leftrightarrow z=\frac{112}{35} x=\frac{16}{5} x$
$\therefore \quad x: y: z=x: \frac{49}{20} x: \frac{16}{5} x=20: 49: 64$
62. (B)


Area of the park $=(60 \times 40)=2400 \mathrm{~m}^{2}$
Area of the lawn $=2109 \mathrm{~m}^{2}$
$\therefore \quad$ Area of the crossroads $=(2400-2109)$

$$
=291 \mathrm{~m}^{2}
$$

Let the width of the road be $x \mathrm{~m}$. Then, Area of road $1+$ Area of road 2 - common area of crossroads = Area of crossroads $60 x+40 x-x^{2}=291$
$\Rightarrow x^{2}-100 x+291=0$
$\Rightarrow(x-97)(x-3)=0$
$\Rightarrow x=3$
$\therefore \quad$ Width of the road $=3 \mathrm{~m}$
63. (C)

| A | B | C |
| :--- | :--- | :--- |
| 80 | 100 | 125 |

Required $\%=\frac{125-80}{125} \times 100 \%=36 \%$
64. (A) Sum of interior angle $=1440^{\circ}$

Sum of exterior angle $=360^{\circ}$
The number of sides of regular polygon

$$
=\frac{1440^{\circ}+360^{\circ}}{180^{\circ}}=10
$$

65. (C) $\angle \mathrm{CBA}=\frac{1}{2} \angle \mathrm{COA}=60^{\circ}$
$\therefore \angle \mathrm{CBE}=180^{\circ}-\angle \mathrm{CBA}=180^{\circ}-60$
66. (C) $2^{2}+4^{2}+6^{2}+$ $\qquad$ $+20^{2}=(1 \times 2)^{2}+(2 \times 2)^{2}$ $+\ldots \ldots(2 \times 10)^{2}$

$$
\left.10^{2}\right)
$$

$=4 \times \frac{1}{6} \times 10 \times 11 \times 21=1540$
67. (A) Volume of cylinder $=\frac{22}{7} \times 6 \times 6 \times 28$ Volume of each bullet $=\frac{4}{3} \times \pi \times \frac{3}{4} \times$ $\frac{3}{4} \times \frac{3}{4}$
$\therefore \quad$ No. of bullet $=\frac{\text { Volume of cylinder }}{\text { Volume of each bullet }}$

$$
=\frac{36 \times 28 \times \frac{22}{7} \times 16}{9 \times \frac{22}{7}}=1792
$$

68. (C) $\frac{5.32 \times(56+44)}{(7.66+2.34)(7.66-2.34)}$

$$
=\frac{5.32 \times 100}{10 \times 5.32}=10
$$

69. 

(A) $\frac{1}{\operatorname{cosec} \theta-\cot \theta}-\frac{1}{\sin \theta}$
$\frac{1}{\operatorname{cosec} \theta-\cot \theta} \times \frac{\operatorname{cosec} \theta+\cot \theta}{\operatorname{cosec} \theta+\cot \theta}-\frac{1}{\sin \theta}$ $\operatorname{cosec} \theta+\cot \theta-\operatorname{cosec} \theta$
$=\cot \theta$
70. (D)

$\operatorname{ar}(\Delta \mathrm{QGR})=\frac{1}{3} \times 48=16 \mathrm{~cm}^{2}$
71. (D) ATQ,
$16 x^{4}+36 x^{2} y^{2}+81 y^{2}=806$
$4 x^{2}-6 x y+9 y^{2}=26$
$\Rightarrow\left(4 x^{2}-6 x y+9 y^{2}\right)\left(4 x^{2}+6 x y+9 y^{2}\right)$
$=806$
$4 x^{2}+6 x y+9 y^{2}=31$
substracting (i) and (ii)
$-6 x y-6 x y=26-31$
$-12 x y=-5$
$3 x y=\frac{5}{4}$
72. (A) $5 \sin ^{2} \theta+2 \cos ^{2} \theta+\frac{3}{1+\tan ^{2} \theta}$
$\Rightarrow 5 \sin ^{2} \theta+2 \cos ^{2} \theta+\frac{3}{\sec ^{2} \theta}$
$=5 \sin ^{2} \theta+2 \cos ^{2} \theta+3 \cos ^{2} \theta$
$=5 \sin ^{2} \theta+5 \cos ^{2} \theta$
$=5\left(\sin ^{2} \theta+\cos ^{2} \theta\right)$
$=5 \quad\left(\because \sin ^{2} \theta+\cos ^{2} \theta=1\right)$
73. (A) Required percentage

$$
=\frac{10+5+4+3}{9+15+18+22+14+10+5+4+3} \times 100
$$

$=\frac{22}{100} \times 100=22 \%$
74. (C) Required percentage

$$
\begin{aligned}
& =\frac{4+3}{9+15+18+22+14+10+5+4+3} \times 100 \\
& \quad=\frac{7}{100} \times 100=7 \%
\end{aligned}
$$

75. (B) Required percentage

$$
\begin{aligned}
& =\frac{18+22}{9+15+18+22+14+10+5+4+3} \times 100 \\
& \quad=\frac{40}{100} \times 100=40 \%
\end{aligned}
$$

## MEANINGS IN ALPHABETICAL ORDER

## Word

Acrobat

Aggravate
Approbation
Cellar

Compendium
Compensated
Conceit
Conscience
Deception

Derisive
Diatribe
Evade
Extravagant
Faint-hearted
Haul
Hesitant

Hostile
Jurist
Kiln
Lenient

Linger
Pantheon
Pertinacious
Pisciculture
Precept
Prescription
Rebuke
Renaissance
Ridicule
Scullery
Seizure
Tenuous
Venomous
Wicked
Wry

## Meaning in English

one that performs gymnastic feats requiring skillful control of the body
to rouse to displeasure or anger by usually persistent and often petty goading
an act of approving formally or officially
a room or set of rooms below the ground floor of a building
a brief summary of a larger work or of a field of knowledge
to provide with means of counteracting variation an elaborate or strained metaphor
a faculty, power, or principle enjoining good acts
the act of causing someone to accept as true or valid what is false or invalid
expressing or causing contemptuous ridicule or scorn
a bitter and abusive speech or piece of writing
to take refuge in escape or avoidance
extremely or unreasonably high in price
lacking courage or resolution to transport in a vehicle
slow to act or proceed (as from fear, indecision, or unwillingness)
of or relating to an enemy one having a thorough knowledge of law an oven, furnace, or heated enclosure used for processing a substance by burning, firing, or drying
exerting a soothing or easing influence : relieving pain or stress
to be slow in parting or in quitting something a temple dedicated to all the gods adhering resolutely to an opinion, purpose, or design the cultivation of fish a command or principle intended especially as a general rule of action
an instruction written by a medical practitioner that authorizes a patient to be provided a medicine or treatment an expression of sharp disapproval or criticism a period of new growth or activity the subjection of someone or something to contemptuous and dismissive language or behavior
a small kitchen or room at the back of a house used for washing dishes and other dirty household work the action of capturing someone or something using force having little substance or strength capable of putting poison or venom into another animal's body usually by biting or stinging it
evil or morally wrong
to pull out of or as if out of proper shape

Meaning in Hindi
कला बा ज
${ }^{2} \mathrm{~T}$ ड. का ना
अनु मा' दन
तहख $T$ ना

स रा
आ पू fर्ति करना
द $q$ T
विवे क
ध' ख

ठ यंग य $\overline{\text { र }}$ मक
अभि T य'गा $\overline{\mathrm{r}}$ मक $\mathrm{q}_{\mathrm{T}} \mathrm{T}$
बचना
पि जू लख च
का य
ढा' ना
दु विध में पड. $T$ हु
पラग。 ता पू प ${ }^{\text {º }}$
विध्रिे रं ता
\& T ट, टT
उ दा र

विलं ब क्रना
सम दे वता आ' का मं ${ }^{\prime}$
हठ $\uparrow$
मछ ली प लन
उपद्दे ग

नु स
प ट का र
पु नजा गरप का ल
उ प्हा स
बरतन सम T ई सथT T न
ज ती
तु च छ
विषण ला

दु ष्ट
ट' ढ़ $T$

## SSC MOCK TEST - 235 (ANSWER KEY)


76. (C) Replace 'his' by one's. If 'one' is used as the subject, nominative case 'one' is used.
78. (A) Place not only before the president 'not only the present ... but also' the Chief Minister will be correct formation.


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.

