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

## SSC MOCK TEST - 114 (SOLUTION)

1. (B) As, the folk-dance of Gujarat is Garba. Similarly, the folk-dance of Punjab is Bhangra
2. $(\mathrm{A})$


Similarly,

3. (C) As, $108 \times 108=11664$

Similarly, $106 \times 106=11236$
4. (D) Except Freezing-Cold, in others 2nd happens due to Ist.
5. (C)

6. (A) $(12)^{2}-(12-2)^{2}$
$(21)^{2}-(21+1)^{2}$
$(5)^{2}-(5+1)^{2}$
$(13)^{2}-(13+1)^{2}$
7. (B) OPTICS
8. (C)

9. (B) Temple $\rightarrow$ Trainef $\rightarrow$ Trainign $\rightarrow$ Troup $\rightarrow$ Tented
10. (C)

11. (B)

12. (C)

13. (C)

14. (D) 48 P 4 R 3 Q 56 Q 4 change the symbol as per detail, $48 \div 4+3 \times 4-6 \times 4=12+12-24=\mathbf{0}$,
15. (A) $(9+11) \times 3=60$
$(13+17) \times 4=120$
$(40+41) \times 5=405$
16. (D) $7+2+4+6=19$
$8+3+2+6=19$
$2+4+7+6=19$
17. (B) $4 \times 3 \times 5+10=70$
$11 \times 8 \times 2+10=186$ $7 \times 5 \times 3+10=\mathbf{1 1 5}$
18. (C) $(7+4) \times 8=\mathbf{8 8}$
$(5+5) \times 6=60$
$(3+1) \times 4=16$
19.
(B) ATQ,

Required number $=43+57=\mathbf{1 0 0}$
20. (D
21. (B)
22. (A)
23. (A)

I. True
II. True
24. (A)
25. (C)
26. (D) • Jaldapara National Park is a national park situated at the foothills of the Eastern Himalayas in Alipurduar District of northern West Bengal and on the banks of the Torsa River.

- Gorumara National Park is a National Park in northern West Bengal, India. Located in the Dooars region of the Himalayan foothills, it is a medium-sized park with grasslands and forests.
- Jim Corbett National Park is the oldest national park in India and was established in 1936 as Hailey National Park to protect the endangered Bengal tiger. It is located in Nainital district of Uttarakhand and was named after Jim Corbett who played a key role in its establishment.

28. (C) The Lok Sabha, unless sooner dissolved, continues to operate for five years from the date appointed for its first meeting and the expiration of the period of five
years. However, while a proclamation of emergency is in operation, this period may be extended by Parliament by law for a period not exceeding one year at a time and not extending, in any case, beyond a period of six months after the proclamation has ceased to operate.
29. (B) TRYSEM:- Training of Rural Youth for Self Employment. Trysem was launched in 1979 as a separate national scheme for training rural youth for self employment. Both men and women were to be selected in each block and trained in both skill development and entre preneurship to enable them to become self-employed.
30. (D) Haemophilia is a mostly inherited genetic disorder that impairs the body's ability to make blood clots, a process needed to stop bleeding. This results in people bleeding longer after an injury, easy bruising and an increased risk of bleeding inside joints or the brain.
31. (D) In 1679, the French physicist Denis Papin, better known for his studies on steam, invented the steam digester in an attempt to reduce the cooking time of food. His airtight cooker used steam pressure to raise the water's boiling point, thus cooking food much more quickly.
32. (D) The main issues are Tonicity and Osmoregulation. Animals living in freshwater have greater salt contents than the surrounding water (the water is an hypotonic solution). They have to have metabolic processes in place to prevent them from taking in too much water while retaining the salt ions they need.
33. (D) It contains all the information about the data objects. It is like storing all up-todate information about the objects like tables, columns, index, constraints, functions etc.
34. (D) Ashoka stone pillars were meant to spread his Dhamma
35. (B) In summer, when barometer falls suddenly, a thunderstorm can be expected, and if it does not rise again upon its cessation, the weather will probably continue unsettled for several days. In summer, when a thunderstorm happens, there is little or no depression of the barometer.
36. (D) Protoplasm is the living content of a cell surrounded by a plasma membrane. Protoplasm is composed of cytoplasm, nucleoplasm and other organelles. Protoplasm contains the cell nucleus and inside the nucleus, is the nucleoplasm.
40.(A) The Twenty-fourth Amendment of the Constitution of India, officially known as The Constitution (Twenty-fourth Amendment) Act, 1971, enables Parliament to dilute Fundamental Rights through Amendments of the Constitution. It also amended article 368 to provide expressly that parliament has power to amend any provision of the constitution.
37. (A) Ticks and mites are categorized under order Arachnids of phylum Arthopoda of animal kingdom.
45.(A) Aichi Biodiversity Targets:- Strategic Goal A: Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society. Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use. Strategic Goal C: To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity. Strategic Goal D: Enhance the benefits to all from biodiversity and ecosystem services. Strategic Goal E: Enhance implementation through participatory planning, knowledge management and capacity building
38. (D) The crookes glass contains cerium and other rare the Earth and has a high absorption of ultraviolet radiation. It is used in Sun glasses.
39. (B) Adrenaline is a hormone secreted by adrenal medulla during stress. This is called as emergency hormone because it initiates quick reaction which makes the individual to think and respond quickly to the stress. The hormone increases metabolic rate. there occurs dialation of blood vessels going to heart and the brain. The blood vessels reaching skin and kidneys constrict in order to provide more blood to the heart and the brain. They also increase fat metabolism thereby synthesising more energy.
40. (D) Anthracite is a dense, shiny coal that has a high carbon content. Very little volatile matter is present in it. It gives a clean flame while burning. Anthracite contains $91 \%$ of carbon; is very little volatile and has almost smokeless burning.
49.(A) National emergency is caused by war, external aggression or armed rebellion in the whole of India or part of its territory. The President can declare such an emergency only on the basis of a written request by the Council of Ministers headed by the Prime Minister. Such a proclamation must be approved by the Parliament within one month. The emergency can be imposed for six months. It can extended by six months by repeated parliamentary approval.
41. (C) $\frac{1}{\mathrm{~N}}=\frac{7+6+2 \sqrt{42}}{1}$

$$
\Rightarrow \quad \mathrm{N}=\frac{1}{13+2 \sqrt{42}}=\mathbf{1 3}-\mathbf{2} \sqrt{\mathbf{4 2}}
$$

52. (A) ATQ, Total time $=\frac{400+360}{(102-64) \times \frac{5}{18}}=\frac{760}{38 \times 5} \times 18$

## 72 seconds

53. (C) ATQ,
$4^{12}+4^{13}+4^{14}+4^{15}$
$=4^{12}\left(1+4+4^{2}+4^{3}\right)$
$=4^{12}(5+16+64)=4^{12} \times 85$
$=4^{12} \times 5 \times 17=4 \times 4 \times 5 \times 17 \times 4^{10}$
$=80 \times 17 \times 4^{10}$
54. (B) ATQ,
$\frac{60}{x+y}+\frac{20}{x-y}=4 \quad\left[\frac{1}{x+y}=u, \frac{1}{x-y}=v\right]$
$\Rightarrow 60 u+20 v=$
and,
$\frac{40}{x+y}+\frac{40}{x-y}=6$
$\Rightarrow 40 u+40 v=6$-------(ii)
from equation (i) and (ii),
$u=\frac{1}{40}$ and $v=\frac{1}{8}$
then $x+y=40$-----(iii) and

$$
x-y=8 \text {------(iv), }
$$

from equation (iii) and (iv),
$y=16$ and $x=24$
Hence, the speed of stream = $\mathbf{1 6} \mathbf{~ k m p h}$
55. (B) ATQ,


Hence, Required time $=6+6+6+6+6$

$$
=30 \text { years }
$$

56. (A) ATQ,

$$
\frac{6000 \times 15}{100}+\frac{6000 \times(-18)}{100}=-180
$$

negative means loss occurs.
Then,
Loss percent $=\frac{180}{12000} \times 100=\mathbf{1 . 5}$
57. (B) ATQ,

New selling price $=\frac{3800}{76} \times 130=₹ \mathbf{6 5 0 0}$
58. (B) ATQ,


Time take by $\mathrm{A}=\frac{90-(5 \times 12)}{6}=\mathbf{5}$ hours
59. (C) ATQ,

$$
B=12 \times \frac{5}{4}=15
$$

Then,


Time taken by $\mathrm{A}=\frac{30}{3-2}=\mathbf{3 0}$ days
60. (C) ATQ,

$$
\begin{aligned}
& \left(x^{32}+\frac{1}{x^{32}}\right)\left(x+\frac{1}{x}\right)\left(x^{16}+\frac{1}{x^{16}}\right)\left(x-\frac{1}{x}\right) \\
& \left(x^{4}+\frac{1}{x^{4}}\right)
\end{aligned}
$$

multiply and divided by $x^{2}+\frac{1}{x^{2}}$ then,

$$
\begin{aligned}
& \left(x^{32}+\frac{1}{x^{32}}\right)\left(x^{2}+\frac{1}{x^{2}}\right)\left(x^{2}-\frac{1}{x^{2}}\right) \times \\
x^{2}+\frac{1}{x^{2}} & \frac{\left(x^{4}+\frac{1}{x^{4}}\right)\left(x^{8}+\frac{1}{x^{8}}\right)\left(x^{16}+\frac{1}{x^{16}}\right)}{}
\end{aligned}
$$

$\left(x^{32}+\frac{1}{x^{32}}\right)\left(x^{4}-\frac{1}{x^{4}}\right)\left(x^{4}+\frac{1}{x^{4}}\right) \times$
$=\frac{\left(x^{8}+\frac{1}{x^{8}}\right)\left(x^{16}+\frac{1}{x^{16}}\right)}{x^{2}+\frac{1}{x^{2}}}$

$$
\left(x^{32}+\frac{1}{x^{32}}\right)\left(x^{8}-\frac{1}{x^{8}}\right) \times
$$

$$
=\frac{\left(x^{8}+\frac{1}{x^{8}}\right)\left(x^{16}+\frac{1}{x^{16}}\right)}{x^{2}+\frac{1}{x^{2}}}
$$

$=\frac{\left(x^{32}+\frac{1}{x^{32}}\right)\left(x^{16}-\frac{1}{x^{16}}\right)\left(x^{16}+\frac{1}{x^{16}}\right)}{x^{2}+\frac{1}{x^{2}}}$
$=\frac{\left(x^{32}+\frac{1}{x^{32}}\right)\left(x^{32}-\frac{1}{x^{32}}\right)}{x^{2}+\frac{1}{x^{2}}}=\frac{\left(\boldsymbol{x}^{64}-\frac{1}{\boldsymbol{x}^{64}}\right)}{\boldsymbol{x}^{2}+\frac{1}{\boldsymbol{x}^{2}}}$
61. (B) ATQ,
$a+b+c=-11$
$\Rightarrow(\mathrm{a}+4)+(\mathrm{b}+5)+(\mathrm{c}+2)=0$
then, $(a+4)^{3}+(b+5)^{3}+(c+2)^{3}-3(a+4)$ $(b+5)(c+2)=0$
62. (B) ATQ,

$\mathrm{QR}=\frac{R S}{2}=5 \sqrt{2}$
$\angle \mathrm{ORQ}=90^{\circ}-30^{\circ}=60^{\circ}$
Then, $\cos 60^{\circ}=\frac{R Q}{O R}=\frac{5 \sqrt{2}}{O R}$
$\Rightarrow \mathrm{OR}=10 \sqrt{2}$ and, $\quad \tan 60^{\circ}=\frac{O Q}{R Q}$
$\Rightarrow \quad 5 \sqrt{2} \times \sqrt{3}=O Q$
$\Rightarrow \quad \mathrm{OQ}=5 \sqrt{6}$
Then, $\mathrm{PQ}=\mathrm{PO}+\mathrm{OQ}=10 \sqrt{2}+5 \sqrt{6}$
$\triangle \mathrm{PQR}$ is a right angle triangle, because

$$
\angle \mathrm{PQR}=90^{\circ}
$$

$\Rightarrow \quad \mathrm{PR}^{2}=\mathrm{PQ}^{2}+\mathrm{RQ}^{2}$

$$
\begin{aligned}
& =(10 \sqrt{2}+5 \sqrt{6})+(5 \sqrt{2})^{2} \\
& =200+150+200 \sqrt{3}+50 \\
& =400+200 \sqrt{3}=\mathbf{2 0 0}(\mathbf{2}+\sqrt{3})
\end{aligned}
$$

63. (C) ATQ,

$O A B$ is an isosceles triangle then, $\angle \mathrm{OAB}=\angle \mathrm{OBA}$
now, in $\triangle \mathrm{AOB}$
$\angle \mathrm{OAB}+\angle \mathrm{OBA}+60^{\circ}=180^{\circ}$
$\Rightarrow 2 \angle \mathrm{OAB}=120^{\circ}$
$\angle \mathrm{OAB}=60^{\circ}$
Thus, angles of $\Delta$ are $60^{\circ}, 60^{\circ}$ and $60^{\circ}$. Hence, it is a equilateral triangle with sides 9 cm
Hence, Radius $=\mathbf{9 c m}$
64. (B) ATQ,


$$
\angle \mathrm{BIC}=90^{\circ}+\frac{\angle A}{2}=145^{\circ}
$$

65. (B) ATQ,
$\tan \theta+\frac{1}{\tan \theta}=7$
Taking cube on both sides
$\tan ^{3} \theta+\frac{1}{\tan ^{3} \theta}=7^{3}-3 \times 7$
$\Rightarrow \tan ^{3} \theta+\cot ^{3} \theta=\mathbf{3 2 2}$
66. (B) ATQ,
$\tan (2 B)=\frac{2 \tan B}{1-\tan ^{2} B}=\frac{2 \times \frac{2}{5}}{1-\frac{4}{25}}=\frac{20}{21}$
$\tan (A+2 B)=\frac{\frac{1}{3}+\frac{20}{21}}{1-\frac{1}{3} \times \frac{20}{21}}=\frac{\frac{27}{21}}{\frac{43}{63}}=\frac{\mathbf{8 1}}{\mathbf{4 3}}$
67. (C) ATQ,

Required distance $=2 \times \frac{22}{7} \times 28 \times 10$
$=1760 \mathrm{~cm}$
68. (B) ATQ,

Total surface area

$$
\begin{aligned}
& =\quad 2 \times \frac{22}{7} \times \frac{14}{2} \times \frac{14}{2}+2 \times \frac{22}{7} \times \frac{14}{2} \times 15 \\
& =\quad 308+660=\mathbf{9 6 8} \mathbf{c m}^{2}
\end{aligned}
$$


69. (B) ATQ,

Required average $=30+\frac{63-23}{50}=\mathbf{3 0 . 8}$
70. (B) ATQ,

\[

\]

Then, $\frac{16}{12-x}=\frac{2}{1} \Rightarrow x=4$
Hence, Required time $=\mathbf{4}$ months
71. (A) ATQ,
$\frac{4 x+8}{5 x+8}=\frac{22}{27}$
$\Rightarrow \quad x=20$
The product of both number $=4 \times 20 \times 5 \times 20$
$=\mathbf{8 0 0 0}$
72. (A) ATQ,


Hence, Required ratio = 4:1
73. (C) ATQ,

Total sale of Shirts
$=(70+75+30+55+65) \times 100=204 \times 100$
Total sale of Trousers
$=(40+50+55+25+34) \times 100=204 \times 100$
Required percent $=\frac{(295-204) \times 100}{204 \times 100} \times 100$
$=44.61$
74. (C) ATQ,

Required Number $=7000-5500=\mathbf{1 5 0 0}$
75. (A) ATQ,
$\begin{aligned} \text { Required increment } & =\frac{(50-40)}{40} \times 100 \\ & =\mathbf{2 5 \%}\end{aligned}$

## Indispensable Books to score $180^{+}$in English



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

## MEANINGS IN ALPHABETICAL ORDER

Word
Adulation
Categorical
Comply
Contend
Contingent
Criterion

Digression
Enfilade
Fortuitous
Grapple
Harrowing

Immaculate
Meandering
Oppugn
Plaudit
Precedent
Precedent

Profanity
Rake
Scatter
Scour
Sordid

## Meaning in English

Excessive or slavish admiration
Absolute
To obey
To argue
Happening by chance
Something that is used as reason for making a judgment or decision

Departure from main subject
A volley of gunfire
Happening by chance rather than intention
To hold and fight with another person
Very shocking or frightening and making you feel very upset

Having no stain or blemish
A winding path or course
To fight against
Praise
Prior in time, order, arrangement or significance Something done or said that can be used as an example to be followed in the future
offensive or disrespectful
To gather
To throw things in different direction
Clean or brighten the surface by rubbing it hard
Dirty, filthy

Meaning in Hindi
चा टु करिता
सु ₹ पष्ट
अ ज्ञा प लन करना
विवा द् करना
अका सि मक
मा पदं ड
$\ddagger$ 广 का व
गा' लिय का बाँ छार
अक्र सि मक
लड . ना, भि $T$ ड. जा ना
प T कज्मक

दा गरहित
हा, मा वदा र
विरा' धकरना
श $T$ बा प $\dagger$
पू र्व वती
पू र्व उदा हरप

अप्मा नज्नक
ज्ना करना
पन ${ }^{*}$ ला दे ना
रगड . कर स प करना
गं दा

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## SSC MOCK TEST - 114 (ANSWER KEY)

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

88. (D) Structure for conditional sentence:

If + simple present, simple future
90. (C) 'Scissors' is a plural noun. To make it singular we add 'a pair of before it.
94. (C) Change 'mean' into 'means'. It means 'an instrument by which an act can be acconplished. (स धा न)



