

## SSC MOCK TEST - $\mathbf{7 2}$ (SOLUTION)

1. (B) Cure is treatment of Disease in the same way Heal is referred as treatment of an Injury.
2. (C) Pesticide protects the plants and vaccination prtoects the babies.
3. (A) $6+3=9$ in same way $6+8=14$
4. (A) Except Book all are stationary items.
5. (A) Except Barber all use raw material.
6. (C) $\mathrm{AG}=$ Difference $=6$

WA $=$ Difference $=22$
ET $=$ Difference $=15$
IQ = Difference = 08
Difference between ET is odd number.
7. (B) Repair $\rightarrow$ Rescue $\rightarrow$ Research $\rightarrow$ Residue
$\rightarrow$ Resign
1

8. (C)
9. (D) $2+5=7$
$5+7=12$
$7+12=19$
$12+19=31$
10. (B) $\mathbf{a b c} / \mathrm{cb} \underline{\mathbf{a}} / \mathrm{abc} / \underline{\mathbf{c}} \mathrm{ba} / \mathrm{a} \mathbf{b} \mathrm{c}$
11. (C)

12. (A) $\frac{4}{2}+2^{3}=10$

$$
\begin{aligned}
& \frac{6}{2}+4^{3}=67 \\
& \frac{10}{2}+3^{3}=32
\end{aligned}
$$

13. (A) $3+2+10+5=\frac{20}{2}=10=$ middle number in figure.
$4+7+6+3=\frac{20}{2}=10=$ middle number in figure.

So that $4+8+3+5=\frac{20}{2}=10$
14. (B)

15. (B)


So, Photo is Anu's brother.
16. (C) 29 February means it is a leap year and in a leap year the month February and August month have the same calender. So, on $29^{\text {th }}$ August it is Monday.
17. (*) $\Rightarrow 12 \div 6-3 \times 20+8$

$$
\begin{aligned}
& \Rightarrow 2-60+8 \\
& \Rightarrow-50
\end{aligned}
$$

18. (C)

19. (*)
20. (C)
21. (D)
22. (B)
23. (D)
24. (A)


Only conclusion I follow.
25. (D)


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26. (C) Himachal Pradesh has been declared India's second "Open Defecation Free (ODF)" state after Sikkim. The state has successfully achieved $100 \%$ coverage and total rural sanitation coverage in the state, with all 12 districts in the state achieving both these feats. With this newly acquired status, Himachal Pradesh will entitle to receive World Bank funding under Rs. 9,000 crore projects to sustain sanitation campaign.
27. (C) India has won the gold medal at the 2016 Asian Men's Hockey Champions trophy by defeating arch-rivals and defending champions Pakistan by 3-2 in the final at Kuantan, Malaysia. This is the second time India has won the title of this tournament.
29. (B) India has been ranked $133^{\text {rd }}$ out of 183 countries in the 2016 Global Youth Development Index (YDI), which is compiled by the Commonwealth Secretariat on the countries' prospects for young people in employment, education, health, civic and political spheres. The list is topped by Germany, followed by Denmark, Australia, Switzerland and United Kingdom (UK).
30. (B) Pneumoconiosis is a respiratory disease caused by the inhaling various types of dust, such as coal dust, silica dust, asbestos dust etc. So, it is very common in workers of coal mining industries and related industries.
32. (C) The Antarctica's Ross Sea has been declared as world's largest Marine Protected Area (MPA) after the landmark international agreement among 24 countries and the European Union in the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) meeting in Hobart, Australia. The Ross Sea is one of the last intact marine ecosystems in the world, which covers 1.6 million square kilometers. It is home to penguins, seals, Antarctic tooth fish and whales.
33. (C) Photosynthesis occurs in green plants by the help of chloroplast. Plasma membrane is a membrane to transport minerals. Cellular respiration is done by mitochondria, by which energy releases. Ribosome helps in protein synthesis.
34. (C) Zirconium purified metal is primarily used by the nuclear industry to form the outer layer of fuel rods in nuclear reactors. Zirconium's major use is as cladding for nuclear reactors. It is ideal for this use, as it has a limited ability to capture neutrons, strength at elevated temperatures, considerable corrosion resistance, and satisfactory neutron damage resistance.
35. (D) Kristalina Georgieva, a former head of EU humanitarian affairs, has been appointed chief executive of the World Bank. She will succeed Sri Mulyani Indrawati on January 2017. Georgieva is a Bulgarian economist and administrator and currently serving as European Commission Vice President for Budget and Human Resource.
36. (A) Fly ash brick (FAB) is a building material, specifically masonry units, containing class C fly ash and water. All fly ash includes substantial amounts of silicon dioxide $\left(\mathrm{SiO}_{2}\right)$ aluminum oxide $\left(\mathrm{Al}_{2} \mathrm{O}_{3}\right)$ and calcium oxide $(\mathrm{CaO})$, the main mineral compounds in coalbearing rock strata. Fly ash can be used as a replacement for some of the Portland cement contents of concrete.
37. (C) Living organism requires about 27 elements of which 15 are metals. K, Mg, Na and Ca are required in major quantities. Minor quantity of $\mathrm{Mn}, \mathrm{Fe}, \mathrm{Co}, \mathrm{Cu}, \mathrm{Zn}$ and Mo and trace amount of $\mathrm{V}, \mathrm{Cr}, \mathrm{Sn}, \mathrm{Ni}$ and Al are required by some organisms. Calcium, magnesium and phosphorus are essential parts of the bones and teeth. Calcium is necessary for blood clotting. Sodium helps in muscle activity and transmission through nerves.
40. (A) Indira Gandhi Prize for Peace, Disarmament and Development was given to Archbishop Desmond Tutu, Jamnalal Bajaj award was given to Dr. M.S. Swaminathan, International Gandhi Peace Prize was given to Nelson Mandela and World Prize was given to Dr. Gurudev Khush.
43. (B) Rubies and Sapphires are scientifically the same stone, differing only in color. Corundum, the predominating mineral of both, is composed of nearly pure alumina $\left(\mathrm{Al}_{2} \mathrm{O}_{3}\right)$. The coloring substance which differentiates rubies and sapphires are believed to be chromium.
44. (A) Corporate Tax is a levy placed on the profit of a firm, with different rates used for different levels of profits. Corporate taxes are taxes against profits earned by businesses during a given taxable period. Most countries tax all corporations doing business in the country on income from that country.
46. (C) Raja Todar Mal was a warrior, an able administrator and an exemplary finance minister. He was one of the 'Navratnas' of Akbar's courts. He introduced an excellent land revenue system. In 1582, the title Diwan-I-Ashraf was bestowed upon him by the Emperor.


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47. (D) The Ninth Five Year Plan recognised the integral link between rapid economic growth and the quality of life of the mass of the people. Ensuring environmental sustainability of the development process through social mobilisation and participation of people at all levels was one of the specific objectives of the Ninth Plan as approved by the National Development Council. In the Ninth Plan document, policies and programmes during the Eighth Plan period were reviewed, shortcomings identified and new policy framework suggested overcoming the shortcomings and ensuring sustainability of the development process not only in economic terms but also in terms of social and environmental factors.
48. (C) Article 280 of the Indian Constitution deals with the Finance Commission. The Finance Commission of India came into existence in 1951. It was established under Article 280 of the Indian Constitution by the President of India. It was formed to define the financial relations between the centre and the state.
49. (B) Nazi Party, by the name of National Socialist German Workers' Party was a political party of the mass movement known as National Socialism. Under the leadership of Adolf Hitler, the party came to power in Germany in 1933 and governed it by totalitarian methods until 1945. It was founded as the German Worker's Party by Anton Drexler, a Munich locksmith, in 1919. Hitler attended one of its meetings that year, and his energy and oratorical skills soon enabled him to take over the party.
51. (C)

$\triangle \mathrm{ABC}$ \& $\triangle \mathrm{ABD}$ are equilateral triangles,

$$
\mathrm{AB}=\mathrm{AC}=\mathrm{BC}=\mathrm{BD}=\mathrm{AD}=\mathrm{r}
$$

$\angle \mathrm{DBC}=\angle \mathrm{CBA}+\angle \mathrm{DBA}$
$=60^{\circ}+60^{\circ}$
$=120^{\circ}$
52. (A)


Avg. speed $=\frac{75}{7} \mathrm{~km} / \mathrm{hr}$

Time ratio $\frac{5}{7}$

So, ratio = 5:9
$(5+9)$ unit $=7 \mathrm{hr}$
14 unit $=7 \mathrm{hr}$
1 unit $=\frac{7}{14}$
5 unit $=\frac{7}{14} \times 5=\frac{35}{14}$
Total distance cover at $12 \mathrm{~km} / \mathrm{hr}=12 \times \frac{35}{14}$
$=30 \mathrm{~km}$
53. (A) $\left(a^{2}+2 a\right)^{2}+12\left(a^{2}+2 a\right)-45$

Let $\left(\mathrm{a}^{2}+2 \mathrm{a}\right)=x$
$=x^{2}+12 x-45$
$=x^{2}+15 x-3 x-45$
$=x(x+15)-3(x+15)$
$=(x-3)(x+15)$
Put the value of $x$
$\left(a^{2}+2 a-3\right)\left(a^{2}+2 a+15\right)$
$=\left(a^{2}+3 a-a-3\right)\left(a^{2}+2 a+15\right)$
$=\{a(a+3)-1(a+3)\}\left(a^{2}+2 a+15\right)$
$=(a-1)(a+3)\left(a^{2}+2 a+15\right)$
54. (B) A : B

5: 4
Total profit is $100 \%$ but $90 \%$ profit is shared between them as $10 \%$ goes to charity.
5 unit $=7500$
9 unit $=\frac{7500}{5} \times 9$
9 unit = 90\%
$\because 90 \%=\frac{7500}{5} \times 9$
$\therefore 100 \%=\frac{7500}{5 \times 90} \times 9 \times 100$
$=₹ 15,000$
55. (A) Upstream speed, $U=\frac{2}{2}=1 \mathrm{~km} / \mathrm{hr}$

Downstream speed, D $=\frac{1}{\frac{1}{3}}=3 \mathrm{~km} / \mathrm{hr}$
Speed of boat in still water $=\frac{D+U}{2}=\frac{3+1}{2}$
$=2 \mathrm{~km} / \mathrm{hr}$
So, required time $=\frac{5}{2} \mathrm{hr}=2 \mathrm{hr} 30 \mathrm{~min}$
56. (C)


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$$
\begin{aligned}
& \angle \mathrm{A}+\angle \mathrm{B}=140^{\circ} \\
& x+3 x=140^{\circ} \\
& 4 x=140^{\circ} \\
& x=35^{\circ} \\
& \angle \mathrm{A}=35^{\circ}
\end{aligned}
$$

57. (B) $3 \times 8 \times 2=4 \times x \times 1$
$x=12 \mathrm{hr}$
58. (D) L.C.M of $3,5,7,8=840$

840 ) 28523 ( 34
$\underline{2520}$
3323
$\frac{3360}{-37}$
So, 37 is the least number which should be added.
59. (C) $\sin 2(A+B-C)=1$

$$
\begin{align*}
& 2(A+B-C)=90 \\
& A+B-C=45^{\circ}  \tag{i}\\
& \tan (B+C-A)=\sqrt{3} \\
& B+C-A=60^{\circ} \tag{ii}
\end{align*}
$$

Solving (i) and (ii) equation

$$
\begin{aligned}
& \mathrm{A}+\mathrm{B}-\mathrm{C}=45^{\circ} \\
& \frac{\mathrm{B}+\mathrm{C}-\mathrm{A}=60^{\circ}}{2 \mathrm{~B}=105^{\circ}} \\
& \angle \mathrm{B}=52 \frac{1}{2}^{\circ}
\end{aligned}
$$

60. (C)


In $\triangle \mathrm{ADE}$
$\tan 60^{\circ}=\frac{\mathrm{AD}}{\mathrm{DE}}$
$\mathrm{DE}=\frac{\mathrm{AD}}{\tan 60^{\circ}}$
$\mathrm{DE}=\frac{15}{\sqrt{3}}$
$\mathrm{DE}=\mathrm{BC}=\frac{15}{\sqrt{3}} \mathrm{~m}$
In $\triangle \mathrm{ABC}$
$\tan 30^{\circ}=\frac{\mathrm{AB}}{\mathrm{BC}}$
$\mathrm{AB}=\mathrm{BC} \cdot \tan 30^{\circ}$
$A B=\frac{15}{\sqrt{3}} \times \frac{1}{\sqrt{3}} m$
$\mathrm{AB}=5 \mathrm{~m}$
Height of electric pole $\mathrm{CE}=\mathrm{AD}-\mathrm{AB}$
$=15-5=10 \mathrm{~m}$
61. (C) C.P of article $=900 \times \frac{60}{100}=₹ 540$
S.P of retailer $=₹ 900$
$\%$ gain $=\frac{360}{540} \times 100=\frac{400}{6}$
$=\frac{200}{3}=66 \frac{2}{3} \%$
62. (D) A : B


So ratio 7:9
63. (C) $8: 30=6: x$

$$
x=40 \mathrm{~min} .
$$

64. (D) $x^{2}+4 x+3=0$
$x^{2}+3 x+x+3=0$
$(x+3)(x+1)=0$
$x=-3,-1$
So put $x=-1$ in $\frac{x^{3}}{x^{6}+27 x^{3}+27}$
$=\frac{-1}{1+27(-1)^{3}+27}$
$=\frac{-1}{1-27+27}=-1$
65. (D) Let the marked price of both article is $x$, $y$ respectively.
According to question:
$\frac{x \times 15}{100}=\frac{y \times 20}{100}$
$\frac{x}{y}=\frac{4}{3}=\frac{80}{60}$

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66. (B) Let number be $x$

$$
\begin{aligned}
& x \times 10 \%=\frac{x}{10} \quad x \times 25 \%=\frac{x}{4} \\
& x \times 50 \%=\frac{x}{2} \quad x \times 75 \%=\frac{3 x}{4} \\
& \Rightarrow \text { Average }=\frac{\frac{x}{10}+\frac{x}{4}+\frac{x}{2}+\frac{3 x}{4}}{4}=24 \\
& =\frac{\frac{2 x+5 x+10 x+15 x}{20}}{4}=24 \\
& =\frac{32 x}{20}=96 \\
& 32 x=96 \times 20 \\
& x=\frac{96 \times 20}{32}=60
\end{aligned}
$$

67. (A) Interest $=\frac{\text { Principal } \times \text { Time } \times \text { Rate }}{100}$
$929.20=\frac{P \times 5 \times 8}{100}$
$\mathrm{P}=\frac{929.20 \times 100}{5 \times 8}$
P = ₹ 2323
68. (D) Let age of Heer be H age of Ranjha be $R$
$\mathrm{H} \times \mathrm{R}=240$
$(\mathrm{H}+4)+(\mathrm{R}-10)=25$
$\mathrm{H}+\mathrm{R}-6=25$
$\mathrm{H}+\mathrm{R}=31$
$(\mathrm{H}+\mathrm{R})^{2}-(\mathrm{H}-\mathrm{R})^{2}=4 \mathrm{RH}$
$961-4 \times 240=(\mathrm{H}-\mathrm{R})^{2}$
$961-960=(H-R)^{2}$
H - R = 1
Solving eqn. (i) and (ii)
H + R = 31
$\mathrm{H}-\mathrm{R}=1$

| $-\quad+\quad-$ |
| :--- |
| $2 R=30$ |

R = 15 (Age of Ranjha)
69. (D)

with help of C they can do work in 3 days
$=\frac{24}{\mathrm{~A}+\mathrm{B}+\mathrm{C}}=\frac{24}{4+3+x}=3$
$\therefore x=1$ (efficiency of C)
$\because 24$ unit $=32,000$
$\therefore 1$ unit $=\frac{32,000}{24}$
$\therefore 3$ unit $=\frac{32,000}{24} \times 3=₹ 4000$
70. (B) $1+2 \sec ^{2} \mathrm{~A} \cdot \tan ^{2} \mathrm{~A}-\sec ^{4} \mathrm{~A}-\tan ^{4} \mathrm{~A}$
$=1-\left(\sec ^{4} A+\tan ^{4} A-2 \sec ^{2} A \cdot \tan ^{2} A\right)$
$=1-\left(\sec ^{2} \mathrm{~A}-\tan ^{2} \mathrm{~A}\right)^{2}$
$=1-(1)^{2}$
$=0$
71. (C) Perimeter of equilateral $\Delta=$ Perimeter of square
$3 \mathrm{a}=4 \mathrm{r}$
$9 a^{2}=16 r^{2}$
$\frac{\mathrm{a}^{2}}{\mathrm{r}^{2}}=\frac{16}{9}$
$\frac{\text { Area of equilateral } \Delta}{\text { Area of square }}=\frac{\frac{\sqrt{3}}{4} a^{2}}{\mathrm{r}^{2}}$
$=\frac{\frac{\sqrt{3}}{4} \times 16}{9}=4: 3 \sqrt{3}$
72. (A) Required answer
$=₹ 10,000 \times \frac{1}{3} \times \frac{15}{100 \times 100}$
= ₹ 5
73. (C) Maximum profit $=4.5$

Minimum loss $=1$ ratio $=9: 2$
74. (B) Total loss $=(1.5+1)=₹ 2.5$ lakh
75. (C) $2.5=x \%(2.5+3.5+4.5+2)$
$2.5=x \% 12.5$
$x \%=\frac{2.5}{12.5}$
$x=\frac{2.5}{12.5} \times 100=x=20$

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## MEANINGS IN ALPHABETICAL ORDER

Word
Mellow
Circuitous
Acquitted
Gradual
Plaintive
Outpost

Protocol

Satire

Affluent
Indulge
Congenial
Sap
Monotonous
Mechanism

## Meaning in English

pleasantly smooth or soft; free from harshness
longer than the most direct way
free from a criminal charge by a verdict of not guilty
taking place or progressing slowly
sounding sad and mournful
a small military camp or position at some distance from चा की
the main force, used especially as a guard against surprise attack
the official procedure or system of rules governing affairs अभु $\bar{y} T$ सम तं ラT की क्रिय of state or diplomatic occasions
a way of criticizing a person, an idea or an institution in ठ यं ग य
which you use humour to show their faults or weaknesses
wealthy
धी
allow oneself to enjoy the pleasure of something
pleasant because of similar to one's interest gradually weaken or destroy dull, tedious, and repetitious लिप्त हा' ना

अनु कू ल, सै हा द पू कमजो र करना

नी रस उ बा ऊ
a natural or established process by which something takes तं $\bar{\top}$ place or is brought about

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SSC MOCK TEST - 72 (ANSWER KEY)

1. (B)
2. (C)
3. (A)
4. (A)
5. (A)
6. (C)
7. (B)
8. (C)
9. (D)
10. (B)
11. (C)
12. (A)
13. (A)
14. (B)
15. (B)
16. (C)
17. (*)
18. (C)
19. (*)
20. (C)
21. (D)
22. (B)
23. (D)
24. (A)
25. (D)
26. (C)
27. (C)
28. (D)
29. (B)
30. (B)
31. (C)
32. (C)
33. (C)
34. (C)
35. (D)
36. (A)
37. (C)
38. (C)
39. (C)
40. (A)
41. (B)
42. (C)
43. (B)
44. (A)
45. (B)
46. (C)
47. (D)
48. (C)
49. (B)
50. (D)
51. (C)
52. (A)
53. (A)
54. (B)
55. (A)
56. (C)
57. (B)
58. (D)
59. (C)
60. (C)
61. (C)
62. (D)
63. (C)
64. (D)
65. (D)
66. (B)
67. (A)
68. (D)
69. (D)
70. (B)
71. (C)
72. (A)
73. (C)
74. (B)
75. (C)
76. (B)
77. (C)
78. (C)
79. (A)
80. (D)
81. (B)
82. (C)
83. (B)
84. (C)
85. (C)
86. (A)
87. (C)
88. (C)
89. (B)
90. (B)
91. (B)
92. (A)
93. (B)
94. (B)
95. (B)
96. (C)
97. (B)
98. (A)
99. (C)
100. (A)
101. (B) The subject of the sentence is 'The Prime Minister', hence singular in nature. Change 'have' into 'has'.
102. (C) Change 'on' into 'in'. This is a phrase which means every sad or difficult situation has a positive side.
103. (C) Change 'passing marks' into 'pass marks'.

Note:- If you face any problem regarding result or marks scored, please contact 9313111777

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

