## SSC MOCK TEST - 157 (SOLUTION)

1. (B) Moon is a Satellite and Earth is a Planet.
2. (B) As,


Similarly,

3. (D) As,
$(9+8)-(3+1)=17-4=13$
Similarly,

$$
(7+8)-(1+4)=15-5=\mathbf{1 0}
$$

4. (A) Except, "64-83", others sets are square of two consecutive natural number.
5. (B) Except "river", other contain stagnant water.
6. (D)


7. (B) 3421
8. (A) $10^{2}+1=101$
$11^{2}-1=120$
$12^{2}+1=145$
$13^{2}-1=168$
$14^{2}+1=197$
$15^{2}-1=224$
9. (B)

10. (B) ccacc/aabaa/bbcbb/cc
11. (D) ATQ,
$\mathrm{Q}>\mathrm{P}>\mathrm{T}$ and $\mathrm{S}>\mathrm{Q}>\mathrm{R}$
Combining both in inequality
S > Q > P > T
$\therefore \quad \mathbf{S}$ runs fastest among all.
12. (D) REVERSE
13. (B) As, B

| B | A | L | E |
| :---: | :---: | :---: | :---: |
| $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 2 | 1 | 12 | 5 |
| $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 3 | 2 | 13 | 6 |
| $\downarrow$ | $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 9 | 4 | 169 | 36 |

and,

| C | A | R |
| :---: | :---: | :---: |
| $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 3 | 1 | 18 |
| $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 4 | 2 | 19 |
| $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 16 | 4 | 361 |

Similarly,

| T | O | Y |
| :--- | :---: | :---: |
| $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 20 | 15 | 25 |
| $\downarrow$ | $\downarrow$ | $\downarrow$ |
| 21 | 16 | 26 |
| $\downarrow$ | $\downarrow$ | $\downarrow$ |
| $\mathbf{4 4 1}$ | $\mathbf{2 5 6}$ | $\mathbf{6 7 6}$ |

14. (B) $35+7 \div 5-3 \times 5$

After inter changing the sign as per the given details,
$=35 \div 7+5 \times 3-5$
$=5+15-5=15$
15. (C) As, $\sqrt{64}+\sqrt{36}=8+6=14$
and, $\sqrt{144}+\sqrt{16}=12+4=16$
Similarly,
$\sqrt{324}+\sqrt{841}=18+29=47$
16. (B) As,
$15+12=27,27 \div 9=3,(3)^{2}=9$
And,
$44+28=72, \quad 72 \div 9=8, \quad 8^{2}=64$
Similarly,
$64+53=117, \quad 117 \div 9=13,13^{2}=\mathbf{1 6 9}$
17. (C)
18. (A)

I. $\rightarrow \checkmark$
II. $\rightarrow \checkmark$

I. $\rightarrow \checkmark$
II. $\rightarrow x$

Hence, only conclusion I follows.
19. (B)


Hence, 6 dots will be opposite to 1 dot.
20. (D) 4, 3, 11 represents educated men.

11 represents educated men who are not urban.
21. (C)
22. (C)
23. (C)

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24. (C) Required angle $=\left(30 \mathrm{H}-\frac{11}{2} \mathrm{M}\right)$ $=\left(30 \times 10-\frac{11}{2} \times 25\right)=300^{\circ}-137.5^{\circ}$ $=162.5^{\circ}$
25. (D)

26. (B) The manufacture of iron ore involves the process of reduction. Important ores of iron are Haematite and Magnetite.
27. (D) The Prime Minister is the chief channel of communication between the President and the Council of MinisterS and keeps the former informed about all the decisions of the council. Article 74 of the Constitution lays down that there shall be a Council of Ministers with Prime Minister at the head to aid and advise the President.
28. (C) Under Section 22 of the Reserve Bank of India Act, the Bank has the sole right to issue bank notes of all denominations. The distribution of one rupee notes and coins and small coins all over the country is undertaken by the Reserve Bank as agent of the Government. The system as it exists today is known as the minimum reserve system.
29. (A) Proteins are large biological molecules consisting of one or more chains of amino acids which are essential nutrients for the human body. They are one of the building blocks of body tissue and can also serve as a fuel source. As fuel, proteins contain 4 kcal per gram, just like carbohydrates and unlike liquids, which contain 9 kcal per gram.
30. (B) The Members of Gram Panchayats, Members of Panchayat Samiti and Zila Parishad are elected directly by the electorates of the respective territorial constituencies through universal adult franchise.
31. (C) Madhya Pradesh Government will appoint girls as a district Brand Ambassador who has recorded significant achievements in any field under the Beti-Bachao-BetiPadhao scheme.
33. (C) Hunter commission:- In 1882, Lord Ripon organized the Hunter Commission under William Wilson Hunter.
Wardhascheme :-On July 31, 1937, Gandhi had published an article in the

Harijan. Based upon this article, an all India National Education Conference was held on October 22 and 23, 1937. The conference is called Wardha Educational Conference and the president of this conference was Gandhi himself.
Indain University Act :- The recommendation of Indian Universities Commission appeared after slight amendments in the shape of Indian Universities Act, which came into force on March, 1904.
Radhakrishnan commission:- The Government of India appointed a university Education Commission under the chairmanship of Dr.Radhakrishnan in November 1948.
34. (D) The 2007 Earth Hour was held on March 31 in Sydney, Australia at 7:30 pm, local time. In October 2007 San Francisco ran its own "Lights Out" programme inspired by the Sydney Earth Hour.
35. (C) University of Houston has signed a memorandum of understanding ( MoU ) with the Indian Institute of Petroleum and Energy (IIPE) to build scientific and technical knowledge through joint research.
Agreement

- IIPE was established in 2016 in Andhra Pradesh initiated by the Ministry of Petroleum and Natural Gas.
- It offers undergraduate degrees in petroleum and chemical engineering and is planning to offer various graduate programmes in energy-related fields.

37. (C) Biochemical oxygen demand (BOD) (also called biological oxygen demand) is the amount of dissolved oxygen needed (i.e., demanded) by aerobic biological organisms to break down organic material present in a given water sample at certain temperature over a specific time period.
38. (A) Madhubani painting or Mithila painting is a style of Indian painting, practiced in the Mithila region of Bihar state, India and the adjoining parts of Terai in Nepal. Painting is done with fingers, twigs, brushes, nibpens, and matchsticks, using natural dyes and pigments, and is characterized by eyecatching geometrical patterns. There are paintings for each occasion and festival such as birth, marriage, holi, suryashasti, kali puja, Upanayanam (sacred thread ceremony), and durga puja.

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40. (D) Pythiumdebaryanum is a species of water mould in the family Pythiaceae. It is known as a plant pathogen on many kinds of wild and cultivated plants, including peanut, beet, eucalyptus, tobacco, and pine trees. The plants develop damping off, a disease state.
41. (A) The principles of neutrality and impartiality have often been interlinked but they do have different meanings and significance. Neutrality usually means not taking sides with warring parties and impartiality refers to non-discrimination and proportionality. (Weiss, 1999) Neutrality is often associated with passivity and inaction. (Donald, 2002, Thakur, 1998) The principles of neutrality and impartiality have traditionally been regarded as essential for UN peacekeeping operations.
42. (A) France has won the 2018 FIFA World Cup. 21 ${ }^{\text {st }}$ FIFA World Cup

- Host country: Russia
- Champions: France (2nd title)
- Runners-up : Croatia
- Third place : Belgium
- Fourth place: England


## 2022 FIFA World Cup

Host country: Qatar

## Roll of honour

- Golden Ball: Luka Modric (Croatia)
- Golden Boot: Harry kane (Croatia)
- Golden glove: ThibautCourtois (Belgium)
- Young Player: kylianMbappe (France)
- Fair Play: Spain

44. (C) Surface temperature of Sun is about $6000^{\circ}$ C and temperature at the centre is around $15,000,000^{\circ} \mathrm{C}$.
45. (B) Burma was separated from India in the year 1937 by the British Government. Burma was formed as an independent country and then was named as Myanmar. The country was an independent Buddhist kingdom during $11^{\text {th }}$ century. Then Mongols attacked the country and grabbed the power and ruled for 100 years. Then it was undertaken by China. Later in the year 1800, France and Britain competed with each other for overtaking Burma. Britain gained power gradually and thus Burma was maintained under British Government of India.
46. (C) Engel's law is an observation in economics stating that as income rises, the proportion of income spent on food falls, even if actual expenditure on food rises. In other words, the income elasticity of demand of food is between 0 and 1. The law was named after the statistician Ernst Engel (1821-1896).
47. (D) Dark fermentation is the fermentative conversion of organic substances to bio hydrogen. It is a complex process manifested by diverse groups of bacteria, involving a series of biochemical reactions using three steps similar to anaerobic conversion.
48. (A) The Central Bank of a country regulates money supply with the help of open market operations, changing the reserve requirements (CRR) and changing discount rate (bank rate). Besides, banks are required to maintain liquid assets in the form of gold, cash and approved securities (margin requirements). The Reserve Bank of India has recently been resorting more to open market operations.
49. (A) Let the number be $x$

ATQ,
$x+\frac{1}{x}=\frac{37}{6}$
$\Rightarrow x+\frac{1}{x}=6+\frac{1}{6}$
$\Rightarrow x=6$
Required number $=6$
52. (A) $\frac{15^{2016}+16^{2017}}{7} \Rightarrow \frac{15^{2016}}{7}+\frac{16^{2017}}{7}$
$\Rightarrow \frac{1^{2016}}{7}+\frac{2^{2017}}{7} \Rightarrow \frac{1^{2016}}{7}+\frac{8^{672} \cdot 2}{7}$
$\Rightarrow \frac{1^{2016}}{7}+\frac{1^{672}}{7} \cdot 2 \Rightarrow 1+2=3$
$\therefore$ Required remainder $=3$
53. (C) 2 times $=(2)^{1} \rightarrow 5$ years

8 times $=(2)^{3} \rightarrow 5 \times 3$ years $=15$ years
$\therefore$ Required number of years $=\mathbf{1 5}$ years
54. (D) Given series is a infinite G.P.
with $\mathrm{r}=-\frac{1}{3} \& \mathrm{a}=1$
$\mathrm{S} \infty=\frac{a}{1-r}$
$\mathrm{S} \infty=\frac{1}{1-\left(-\frac{1}{3}\right)}=\frac{1}{1+\frac{1}{3}}=\frac{1}{\frac{4}{3}}$
$=\frac{3}{4}$
55. (A) Here, $5-4=1,6-5=1,7-6=1$
$\operatorname{LCM}$ of $(5,6,7)=210$
$\therefore$ Required number $=210-1=\mathbf{2 0 9}$

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56. (C) $x^{x \sqrt{x}}=x^{\sqrt{x^{3}}}=x^{x^{\frac{3}{2}}}$
$(x \sqrt{x})^{x}=\left(x^{\frac{3}{2}}\right)^{x}=x^{\frac{3}{2} x}$
by comparing power of $x$
$x^{\frac{3}{2}}=\frac{3}{2} x$
squaring both sides,
$\Rightarrow x^{3}=\frac{9}{4} x^{2}$
$\Rightarrow x=\frac{9}{4}$
57. (C) $x^{2}-3 x+1=0$
$\Rightarrow x^{2}+1=3 x$
$\Rightarrow \frac{x^{2}+1}{x}=3$
$\Rightarrow x+\frac{1}{x}=3$
$\Rightarrow \quad x^{2}+\frac{1}{x^{2}}=3^{2}-2=7$
$\Rightarrow x^{2}+\frac{1}{x^{2}}=7$
$\Rightarrow x^{4}+1=7 \times x^{2}$
$\Rightarrow x^{4}-7 x^{2}+1=0$
$\Rightarrow x^{4}-7 x^{2}+1+4=4$
$\Rightarrow x^{2}-7 x^{2}+5=4$
58. (C) $(\mathrm{A}+\mathrm{B}+\mathrm{C})$ 's 1 day's work $=\frac{1}{24}+\frac{1}{6}+\frac{1}{12}$
$=\frac{7}{24}$
So, all three together will complete the
work in $\frac{24}{7}$ days $=\mathbf{3} \frac{\mathbf{3}}{\mathbf{7}}$ days.
59. (B) Required average
$=\frac{55 \times 50+60 \times 55+45 \times 60}{55+60+45}$
$=\frac{2750+3300+2700}{160}$
$=\frac{8750}{160}=\mathbf{5 4 . 6 8}$
60. (B) $1+2 \sec ^{2} \mathrm{~A} \cdot \tan ^{2} \mathrm{~A}-\sec ^{4} \mathrm{~A}-\tan ^{4} \mathrm{~A}$
$=1-\left(\sec ^{4} A+\tan ^{4} A-2 \sec ^{2} A \cdot \tan ^{2} A\right)$
$=1-\left(\sec ^{2} A-\tan ^{2} A\right)^{2}$
$=1-(1)^{2}=\mathbf{0}$
61. (C) Let the number be $x$

ATQ,
$75 \% x+75=x$
$\Rightarrow 75 \% x+75=100 \% x$
$\Rightarrow 75=25 \% x$
$\Rightarrow 3=1 \% x$
$\Rightarrow 300=100 \% x$
$\Rightarrow$ Required number $=\mathbf{3 0 0}$
62. (B) ATQ,
$\frac{2}{3} \mathrm{~A}=\frac{4}{5} \mathrm{~B}$
$\Rightarrow 10 \mathrm{~A}=12 \mathrm{~B}$
$\Rightarrow \mathrm{A}: \mathrm{B}=12: 10$
$\Rightarrow A: B=6: 5$
$\therefore$ Required ratio $=6: 5$
63. (C) List price $=$ ₹ 1400

After 1 st discount $=\frac{90}{100} \times 1400=₹ 1260$
$\mathrm{SP}=₹ 1200$
Addition discount $\%=\frac{(1260-1200)}{1260} \times 100$
$=4 \frac{16}{21}$
64. (A)


In $\triangle P Q R$
$\because \quad \mathrm{MO} \| \mathrm{QR}$
$\therefore \quad \frac{\mathrm{PO}}{\mathrm{OQ}}=\frac{\mathrm{PM}}{\mathrm{MR}}=\frac{4}{5}=4: 5$
In $\triangle \mathrm{POR}$
$\because \quad \mathrm{OR} \| \mathrm{NM}$
$\therefore \quad \frac{\mathrm{PN}}{\mathrm{NO}}=\frac{\mathrm{PM}}{\mathrm{MR}}=\frac{4}{5}=4: 5$
Let $\mathrm{PO}=40$
$\therefore \quad \mathrm{OQ}=50$ and $\mathrm{ON}=40 \times \frac{5}{9}=\frac{200}{9}$
$\therefore \quad \mathrm{ON}: \mathrm{OQ}=\frac{200}{9}: 50=4: \mathbf{9}$
65. (C) $\angle \mathrm{COB}=360^{\circ}-\left(140^{\circ}+90^{\circ}\right)=130^{\circ}$
$\Rightarrow x=\angle \mathrm{CAB}=\frac{1}{2} \angle \mathrm{COB}=\frac{1}{2} \times 130^{\circ}=65^{\circ}$
$\Rightarrow x=65^{\circ}$

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

66. (D) Speed of train

$$
=\frac{50}{(14-10)}=\frac{18}{5}
$$

$=45 \mathrm{~km} / \mathrm{hr}$
67. (C) $x^{2}-1, x^{2}+1,2 x \rightarrow$ sides
put $x=2$
3, 5, $4 \rightarrow$ Right angled traingle
Hence, the traingle will be right angle triangle.
68. (B)


$$
\tan 30^{\circ}=\frac{h}{50}
$$

$$
\Rightarrow \frac{1}{\sqrt{3}}=\frac{h}{50}
$$

$$
\Rightarrow h=\frac{\mathbf{5 0}}{\sqrt{\mathbf{3}}} \boldsymbol{m}
$$

69. (A) ATQ,

$$
\begin{aligned}
& h_{\text {cone }}=h_{\text {cylinder }} \\
& R_{\text {cone }}: R_{\text {cylinder }}=2: 1
\end{aligned}
$$

$\therefore \quad$ Required Ratio

$$
=\frac{1}{3} \pi \mathrm{R}_{\text {cone }}^{2} \cdot \mathrm{~h}_{\text {cone }}=\pi \mathrm{R}_{\text {cylinder. }}^{2} \mathrm{~h}_{\text {cylinder }}=\frac{2^{2}}{3}: 1=\mathbf{4}: \mathbf{3}
$$

70. (C) Let $B$ be speed of boat $\& S$ be speed of stream. ATQ,
$B+S=8$
$\frac{\mathrm{B}-\mathrm{S}=4}{2 \mathrm{~B}=12}$
$\Rightarrow B=6 \mathbf{k m} / \mathbf{h r}$
71. (A) Required angle $=\frac{4}{100} \times 360^{\circ}=14.4^{\circ}$
72. (A) Percentage expenditure $=\frac{57.6^{\circ}}{360^{\circ}} \times 100 \%$ = $16 \%$
$16 \%$ expenditure $\Rightarrow$ paper
73. (A) ATQ,
$42 \%=₹ 4200$ [Printing]
$\Rightarrow 1 \%=₹ 100$
$\Rightarrow 12 \%=₹ 1200$ [Royality]
74. (B) Required ratio $=42 \%: 16 \%$

$$
=21: 8
$$

75. (B) ATQ,

$$
16 \%=₹ 8000 \text { [Paper] }
$$

$$
\Rightarrow 42 \%-12 \%=30 \%=30 \times 500=₹ 15000
$$

Required difference $=₹ 15000$


## MEANINGS IN ALPHABETICAL ORDER

## Word

Autocracy

Autonomy
Benevolence
Convenient

Cape

Docile
Drench
Improvise

Isthmus
Irascible
Lagoon

Monarchy

Occultist

Obstinate
Ominous

Oppressive
Oligarchy
Predator
Strait

Threatening

Terminator

## Meaning in English

government in which one person possesses unlimited power
the quality or state of being self－governing an act of kindness
fitting in well with a person＇s needs， activities and plans
a point or extension of land jutting out into water as a peninsula or as a projecting point easily taught，led，or managed
to soak with water etc．
to make or create（something）by using whatever is available
a narrow strip of land connecting two larger
Very Irritathing
a shallow channel，or pond near with a larger body of water
absolute sovereignty by a single person， ruled by a king

Notable people，who are involved in supernatural theory or practices stubborn
suggesting that something bad is going to happen in the future
cruel or harsh without just cause government or control by a small group of people one that preys，destroys or devours a comparatively narrow passage way connecting two large bodies of water having a hostile or deliberately frightening quality
the dividing line between the illuminated and the unilluminated part of the moon， that terminates

## Meaning in Hindi

एकतं ラ

स्वा य T T
उ दा रता ，कृप
सु विध जाक

के प

विनी त，विनम्र
कि $\mathrm{T}^{\circ}$ गा ना
का मचला ऊ प्र बं धकरना
₹थ $\uparrow$ लड मस्मधय
चिड．चिड． 1
झी ल

रा जंラ $\ddagger$

ता 戶िт क

ढ़ 7 ट
अपश कु न

दमनका री
कु छ ही ला＇गा＇${ }^{\circ}$ द्वा रा चलने वा ला प
पद $T$ क्ष $\uparrow$
जनड मस्मधय

ध्रकी $\% T$
land areas
चाँ द के चमकी ले एं मली न
qTTग के बी चकी रे खा，जो
ख $\overline{<}$ म करे

SSC MOCK TEST - 157 (ANSWER KEY)

76. (C) Here we are using, 'aesthetic' as an 'adjective' to describe 'appeal' (noun). Thus replace 'aesthetics' with 'aesthetic'.
77. (A) If two or more personal pronouns to be used in a sentence, the order should be 231 (second person, third person, first person). Thus replace 'I and my wife' with 'my wife and I'.
79. (A) 'Cut down' means 'to reduce'.
90. (D) Preposition 'through' is used 'to indicate movement from one end to the other end'.
91. (C) 'Unless' is itself a negative word, it can't be followed by another negative word. Also given sentence is a conditional sentence. So replace 'don't work hard' with 'work hard'.


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

