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

## SSC MOCK TEST - 62 (SOLUTION)

1. (D) Look for opposites in this series of figures. The first and second segments are opposites of each other. The same is true for the third and fourth segments.
2. (A) Jalka means happy;mofti means birthday; hoze means party; mento means good; and gunn means the suffix ness. We know the answer must include the suffix ness. The only choice that uses that suffix is choice (A).
3. (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.
4. (C) The correct order is :

| Seed | Plant | Tree | Flowers | Fruit |
| :---: | :---: | :---: | :---: | :---: |
| 2 | 5 | 1 | 3 | 4 |

5. (D) Gold and Zinc are different from each other but both are metal.
6. (B) Trunk, Fruit and leaf are the parts of the tree.
7. (C) $15=3 \times 5$

$$
\begin{aligned}
& 35=5 \times 7 \\
& 99=9 \times 11 \\
& 77=7 \times 11
\end{aligned}
$$

Except (C), others are product of consecutive prime numbers. 9 is not a prime number.
8. (D)

|  | No. of <br> const. (A) | No. of <br> Vowels (B) | $\mathrm{A}^{2}$ | $\mathrm{~B}^{3}$ |
| :--- | :---: | :---: | :---: | :---: |
| ROAD | 2 | 2 | 4 | 8 |
| SHIP | 3 | 1 | 9 | 1 |
| ARE | 1 | 2 | 1 | 8 |
| DEAR | 2 | 2 | 4 | 64 |

The word 'DEAR' is different from others, as DEAR $=464{ }^{1} 84$.
9. (C) Let there be $(x+1)$ members. Then,

Father's share $=\frac{1}{4}$, share of each other member $=\frac{3}{4 x}$

Hence, total number of family members = 10
10. (B) A and B are children of D.

From (1), C is the brother B and son of F.
Since, the sex of D and E are not known. Hence (1) is not sufficient to answer the question.
From (2). F is the mother of B. Hence, F is also the mother of $A$. Hence $D$ is the father of A.
Thus, (2) is sufficient to answer the question.
11. (B) As the numbers $2,3,4$ and 5 are adjacent to 6 . Hence the number on the face opposite to 6 is 1 .
12. (C)

$\backslash$ Required distance $(\mathrm{AE})=(14-3)=11 \mathrm{kms}$
13. (D)
14. (D)

15. (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.
16. (C)
17. (C) $8 \times 0.5+2=6$
$6 \times 1+3=9$
$9 \times 2+4=22$
$22 \times 4+5=93$
$93 \times 8+6=750$
18. (C) The figure may be labelled as shown.


Simplest triangles are ABJ, ACJ, BDH, DHF, CIE and GIE i.e. 6 in number.


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

Triangles composed of two components each are ABC，BDF，CEG，BHJ，JHK，JKI and CJI i．e． 7 in number．
There is only one triangle JHI which is composed of four components．
Thus，there are $6+7+1=14$ triangles in the given figure．
19．（C）We can＇t find 2 E＇s in the word ＇HERBIVOROUS＇．
20．（B）
21．（A）$(5 \times 4)-(6 \times 3)=2$ в $2^{3}=8$
$(3 \times 6)-(5 \times 3)=3$ в $3^{3}=27$
22．（B）


23．（C） $\mathrm{FIRE}=2$ const．\＆ 2 vowel $=(2)^{3} \&(2)^{2}$ 巨 84 RAINBOW $=4$ const．\＆ 3 vowel $=(4)^{3} \&(3)^{2}$巨 649
24．（B） $8 \times 1+5=13$
$13 \times 2+4=30$
$30 \times 3+3=93$
$93 \times 4+2=374$
$374 \times 5+1=\mathbf{1 8 7 1}$
25．（D）J A $\quad$ Y $\quad \mathrm{S} \quad \mathrm{U} \quad \mathrm{R} \quad \mathrm{Y} \quad \mathrm{A}$ $\begin{array}{llllllll}17 & 26 & 2 & 8 & 6 & 9 & 2 & 26=96\end{array}$
巨 $96 \times 8$（no．of letters）$=768$
L A R A
$1526 \quad 926=76$ у $76 \times 4$（no．of letters） $=304$
$\begin{array}{lllllllll}\text { T } & \text { E } & \text { N } & \text { D } & \text { U } & \text { L } & \text { K } & \text { A } & \text { R }\end{array}$ $\begin{array}{lllllllll}7 & 22 & 13 & 23 & 6 & 15 & 16 & 26 & 9=137\end{array}$巨 $137 \times 9$（no．of letters）$=\mathbf{1 2 3 3}$
26．（C）The first National Conference of Investigating Agencies was held from August $12^{\text {th }}$ to $13^{\text {th }}, 2016$ at Vigyan Bhawan in New Delhi．The two－day conference was inaugurated by the Union Home Minister Rajnath Singh．The conference was attended by more than 100 delegates from States／ UTs／Central Police Organisations．
27．（C）Viratnagar，capital of Matsya Mahajanpada was located near present Jaipur．It was used as a hiding place by Pandavas during $13^{\text {th }}$ year of their exile．
28．（C）The Maharashtra government has recently launched India＇s first comprehensive＇Crime Criminal Tracking Network System＇（CCTNS）through 42 cyber labs in Mumbai on August $15^{\text {th }}, 2016$ ．Under the CCTNS，all police stations in the state will be linked with one another for sharing information about crimes in their respective
jurisdictions and pave the way for a digital police force in Maharashtra．
29．（C）Both the statements are correct in this question．The total land boundary of India is about $15,200 \mathrm{~km}$ and the total length of the coast line of the mainland including Andaman and Nicobar and Lakshadweep is $7,516.6 \mathrm{~km}$ ．This implies that land border of India is approximately twice of the coastline of the country．
30．（C）A．R．Rahman，is the Oscar－winning music maestro，has been honoured by the New York－based Tamil Sangam with its Tamil Ratna Award．Rahman was bestowed with the award after his concert at the United Nations General Assembly（UNGA）to honour M．S． Subbulakshmi＇s birth centenary．The concert was sponsored by the India＇s UN Mission and Sankara Nethralaya，a Chennai－based charity organization．
31．（B）The Railway bridge being constructed over the Chenab River in Jammu \＆Kashmir is planned to have a height of 359 meters from river bed level which，as per available information，is the highest railway bridge in the world．The railway bridge over river Chenab is a part of Udhampur－Srinagar－ Baramulla new line project which，on completion，is expected to connect Anantnag， Pulwama，Sopian，Badgam，Srinagar and Baramulla districts of Jammu \＆Kashmir State to the Railway network．
33．（B）R．K．Shanmukham Chetty was the first Finance Minister of independent India．He presented the first budget of independent India on November $26^{\text {th }}, 1947$.
34．（B）CBDT Chairperson is responsible for transfers and postings of officers in the cadre of Chief Commissioner of Income－tax and Commissioner of Income－tax．
35．（A）The act 1892 can be said to be a First step towards the beginning of the parliamentary system in India，where the members are authorized to ask questions． Indian Councils act 1892 can also be said to introduce the principle of representation．
36．（C）Gypsum $\left(\mathrm{CaSo}_{4} \cdot 2 \mathrm{H}_{2} \mathrm{O}\right)$ ，about $2-5 \%$ is added to retard the setting action of cement．
39．（D）Raja Ram Mohan Roy has come to be called the＇Maker of Modern India＇．He was the main force behind introduction of the western education and English language in India．He advocated the study of English， Science，Western Medicine and Technology． He spent his money on a college to promote these studies．He was the founder of the Brahmo Samaj and a great leader of social reform．It was as a result of his persistent campaign that the custom of Sati was declared illegal in Bengal in 1829 A．D．by Lord

William Bentick．He was the chief advocate of the modern process of education and the scientific learning．
47．（B）The book＂A Book of Light：When a Loved One Has a Different Mind＂has been authored by Jerry Pinto．The book is a collection of stories from people who recount their experiences of living with loved ones with a mental illness．In a society where the subject is rarely discussed openly，even among family，the book reminds us that we need many more such personal accounts．
48．（C）Polysiloxane are usually used for hair setting in beauty parlours．These Silicon based compounds have an affinity for the hair and form a film at hairs surface．

49．（B）


51．（B）Relative speed $=(45+30) \mathrm{km} / \mathrm{hr}$

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 $=500 \mathrm{~m}$

52．（A）$\frac{15^{2016}+16^{2017}}{7}$ 巨 $\frac{15^{2016}}{7}+\frac{16^{2017}}{7}$
$=\frac{1^{2016}}{7}+\frac{2^{2017}}{7}$
（As，rem．$(15 / 7)=1$ and
rem．$(16 / 7)=2)$

$\backslash$ Required remainder $=1+2=3$
53．（D）Let the rate be R\％p．a．

巨 $100 \mathrm{R}+120 \mathrm{R}=2200$

$\backslash$ Rate $=10 \%$
54．（B）C．P．of 56 kg rice $=(26 \times 20+30 \times 36)$

$$
\begin{aligned}
& =(520+1080) \\
& =₹ 1600
\end{aligned}
$$

S．P．of 56 kg rice $=(56 \times 30)=₹ 1680$
$\backslash$ Gain $=\frac{\mathfrak{x} 80}{\& 1600}, 100 \underset{\dot{\dot{\varnothing}}}{\stackrel{\ddot{\partial}}{\circ}} \%=5 \%$

55．（B）Increase in 10 years $=(262500-175000)$

$$
=87500
$$


$\backslash$ Required average $=\stackrel{\rightsquigarrow 50}{8} \frac{\ddot{\partial}}{10} \frac{\dot{\dot{\phi}}}{\%} \%=5 \%$
56．（B）Total volume of water displaced
$=(4 \times 50)=200 \mathrm{~m}^{3}$
$\backslash$ Rise in water level $=\frac{\mathfrak{\&} 200}{\AA 40^{\prime} 20} \stackrel{\ddot{\emptyset}}{\dot{\dot{\varnothing}}}=0.25 \mathrm{~m}$

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

57．（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 $(4 \times 5 \times 1)=0$
58．（B）Given exp．

$=\frac{X^{a}}{\left(X^{a}+X^{b}+X^{c}\right)}+\frac{X^{b}}{\left(X^{a}+X^{b}+X^{c}\right)}+\frac{X^{c}}{\left(X^{a}+X^{b}+X^{c}\right)}$
$=\frac{\left(X^{a}+X^{b}+X^{c}\right)}{\left(X^{a}+X^{b}+X^{c}\right)}=1$
59．（B）Let the required number of revolutions made by larger wheel be $x$ ．
Then，More cogs，less revolutions（Indirect Proportion）
\14：6：：21：x ̂̂ $14 x \times=6 \times 21$
इ $x=\frac{6^{\prime} 21}{14}$
巨 $x=9$
60．（C）Let the distance travelled be $x \mathrm{~km}$
Then，$\frac{x}{10}-\frac{x}{15}=2$
у $3 x-2 x=60$
巨 $x=60 \mathrm{~km}$
Time taken to travel 60 km at $10 \mathrm{~km} / \mathrm{hr}$
$=\frac{260}{\varepsilon_{8}} \frac{\ddot{\partial}}{10} \frac{\dot{\emptyset}}{2}=6 \mathrm{hrs}$
So，Robert started 6 hrs before 2 P．M．i．e．，at 8 A．M．

Required speed $=\frac{260}{\&} \frac{\ddot{\partial}}{5} \stackrel{\ddot{\emptyset}}{\dot{\varnothing}}=12 \mathrm{~km} / \mathrm{h}$

61．（B）C＇s 1 day＇s work $=\frac{1}{3}-\stackrel{\rightsquigarrow 1}{\&} \frac{1}{6}+\frac{1}{8} \frac{\ddot{\emptyset}}{\dot{\emptyset}}$
$=\frac{1}{3}-\frac{7}{24}=\frac{1}{24}$
A＇s wages ：B＇s wages：C＇s wages
$=\frac{1}{6}: \frac{1}{8}: \frac{1}{24}=4: 3: 1$


$$
\text { = ₹ } 400
$$

62．（C）Rate downstream $=\frac{\mathfrak{~} 1}{810}, 60 \frac{\ddot{\dot{\oplus}}}{\ddot{\dot{\emptyset}}}=6 \mathrm{~km} / \mathrm{hr}$ Rate upstream $=2 \mathrm{~km} / \mathrm{hr}$
Speed in still water $=\frac{1}{2}(6+2)=4 \mathrm{~km} / \mathrm{hr}$

$=1 \frac{1}{4}=1 \mathrm{hr} 15 \mathrm{~min}$
63．（A）Amount $=(30000+4347)=₹ 34347$
Let the time be $n$ years


\ $n=2$ years
64．（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，$\frac{14 x}{8 y}=\frac{5}{7}$ Û $98 x=40 y$ Û $y=\frac{49}{20} x$
and，$\frac{14 x}{7 z}=\frac{5}{8}$ Û $112 x=35 z$
̂̂ $z=\frac{112}{35} x=\frac{16}{5} x$
\x：y：z＝x：$\frac{49}{20} x: \frac{16}{5} x=20: 49: 64$
65．（B）


Area of the park $=(60 \times 40)=2400 \mathrm{~m}^{2}$
Area of the lawn $=2109 \mathrm{~m}^{2}$
$\backslash$ 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
$60 x+40 x-x^{2}=291$
巨 $x^{2}-100 x+291=0$
巨 $(x-97)(x-3)=0$
巨 $x=3$
$\backslash$ Width of the road $=3 \mathrm{~m}$
66．（D）Given ratio $=\frac{1}{2}: \frac{2}{3}: \frac{3}{4}=6: 8: 9$
$\backslash I^{\text {st }}$ part $={ }_{\S}^{æ} 782, \frac{6}{23} \underset{\dot{\dot{\emptyset}}}{\ddot{\dot{\circ}}}=₹ 204$
67．（B）Let B got turned off after $x \mathrm{~min}$ ．Then， Part filled by $(\mathrm{A}+\mathrm{B})$ in $x \min +$ Part filled by A in $(30-x) \min =1$
$\backslash x_{8}^{x} \frac{\mathfrak{2}}{75}+\frac{1}{45} \underset{\dot{\emptyset}}{\dot{\dot{\delta}}}+(30-x) \frac{2}{75}=1$

5 $\frac{11 x}{225}+\frac{(60-2 x)}{75}=1$
в $11 x+180-6 x=225$
巨 $x=9$
68．（B）By rule of alligation，we have


Ratio of $1^{\text {st }}$ and $2^{\text {nd }}$ quantities $=7: 14=1: 2$
$\backslash$ Required quantity which should be replaced
$=\frac{2}{2+1}=\frac{2}{3}$
69．（A）$x-y=\frac{x+y}{7}=\frac{x y}{4}=k$
巨 $x-y=k$
$x+y=7 k$
$\backslash(x+y)^{2}-(x-y)^{2}=49 k^{2}-k^{2}$
$4 x y=48 k^{2}$ 巨 $16 k=48 k^{2}$ 巨 $k=\frac{1}{3}$
$\backslash x y=4 k=4 \times \frac{1}{3}=\frac{4}{3}$

2007, OUTRAM LINES, 1ST FLOOR, OPPOSITE MUKHERJEE NAGAR POLICE STATION, DELHI-110009
70. (C) Let $x=\sqrt{7 \sqrt{7 \sqrt{7 \sqrt{7 \ldots \ldots .}}}}$
$\backslash x=\sqrt{7 x}$
On sq. both sides
$x^{2}=7 x$
巨 $x(x-7)=0$ 巨 $x=7$
$\backslash 7=\left(7^{3}\right)^{y-1}=7^{3 y-3}$
ธ $3 y-3=1$ ธ $3 y=4$
$y=\frac{4}{3}$
71. (C)


Let $\mathrm{AB}=a$ units
$\mathrm{BE}=\frac{\sqrt{3}}{2} a$ units
$\mathrm{AB}^{2}+\mathrm{BC}^{2}+\mathrm{CA}^{2}=3 a^{2}=4 \times \frac{3}{4} a^{2}$
$=4 \times \frac{æ \sqrt{3}}{\S} \frac{\ddot{o}^{2}}{\ddot{o}_{\dot{\circ}}^{-}}=4 \mathrm{BE}^{2}$
72. (A) $\frac{n}{1}=\frac{\sin 2 x}{\sin 2 y}$

Apply Componendo \& Dividendo rules
$\frac{n+1}{n-1}=\frac{\sin 2 x+\sin 2 y}{\sin 2 x-\sin 2 y}$
$=\frac{2 \sin (x+y) \times \cos (x-y)}{2 \cos (x+y) \times \sin (x-y)}=\frac{\tan (x+y)}{\tan (x-y)}$
73. (B) $\frac{\text { Area of DBDF }}{\text { Area of hexagon }}=\frac{1}{2}$
$\backslash$ Area of hexagon $=6 \times$ area of equilateral triangle $=6 \times \frac{\sqrt{3}}{4} \times 6^{2}=54 \sqrt{3} \mathrm{~cm}^{2}$
$\backslash$ Area of $\mathrm{DBDF}=27 \sqrt{3} \mathrm{~cm}^{2}$
74. (C) Since 66 students get 20 and above marks in Chemistry and out of these 21 students get 30 and above marks, therefore to select top 35 students in Chemistry, the qualifying marks should lie in the range 20-30.
75. (C) Number of students getting at least $60 \%$ marks in Chemistry
$=$ Number of students getting 30 and above marks in Chemistry $=21$
$=$ Number of students getting 20 and above marks in aggregate $=73$

$$
\begin{aligned}
& \text { = 28.77\% } \\
& \text { »29\% }
\end{aligned}
$$

## MEANINGS IN ALPHABETICAL ORDER

## Word

Audacity
Chivalrous
Consequence
Deliverance
Demagogue

Dinghy
Dire
Exile
Expiation

Frigate
Gallant
Gigantic
Heinous
Humility
Imprison
In pursuit of
Monstrous
Pursue
Redemption
Redundant
Resumption

Righteous
Statesman
Submission

Valorous

## Meaning in English

rude or disrespectful behaviour; impudence
courteous and gallant, especially toward women
a result or effect of an action or condition
the action of being rescued or set free
a political leader who seeks support by appealing to popular desires and prejudices
a small boat for recreation or racing extremely serious or urgent the state of being barred from one's native country

Meaning in Hindi
धष्ठ ता
औ रता' के प्र तिशि ष्ट
परिप T म
मु कित
\&ाड. का ऊ \& Tाषण

प्र तिय` गिता के लिएबनी विकट, कठ †' र निवा \({ }^{`}\) सम, दे प्र निका ला the act of making amends or reparation for guilt or wrong परिहा र doing; atonement
a warship with a mixed armament
यु द्ध- प` त
वी र, स हसे
विश $T$ लका य बहु तबड. T
हिग नाँ ना, कु टि स्त
विनम्र ता
बन दी बना ना, कै द करना
की खा'जमे
दै г य का र, ड रा वना
आ गे बढ़. T ना, जा री रख $\nmid$
प पमु वित
अना वश्क, प T लतू
the action of beginning something again after a pause or पु न: आ रं $\%$ T interruption
morally right or justifiable; virtuous ₹ मा नदा र, = य यसा यम a skilled, experienced, and respected political leader or figure नी तिउ पदे प क, गु प वा न

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

## SSC MOCK TEST - 62 (ANSWER KEY)

1. (D)
2. (A)
3. (B)
4. (C)
5. (D)
6. (B)
7. (C)
8. (D)
9. (C)
10. (B)
11. (B)
12. (C)
13. (D)
14. (D)
15. (A)
16. (C)
17. (C)
18. (C)
19. (C)
20. (B)
21. (A)
22. (B)
23. (C)
24. (B)
25. (D)
26. (C)
27. (C)
28. (C)
29. (C)
30. (C)
31. (B)
32. (C)
33. (B)
34. (B)
35. (A)
36. (C)
37. (A)
38. (D)
39. (D)
40. (B)
41. (B)
42. (A)
43. (C)
44. (B)
45. (B)
46. (D)
47. (B)
48. (C)
49. (B)
50. (D)
51. (B)
52. (A)
53. (D)
54. (B)
55. (B)
56. (B)
57. (A)
58. (B)
59. (B)
60. (C)
61. (B)
62. (C)
63. (A)
64. (B)
65. (B)
66. (D)
67. (B)
68. (B)
69. (A)
70. (C)
71. (C)
72. (A)
73. (B)
74. (C)
75. (C)
76. (C)
77. (C)
78. (B)
79. (D)
80. (A)
81. (B)
82. (C)
83. (B)
84. (C)
85. (B)
86. (C)
87. (D)
88. (A)
89. (A)
90. (B)
91. (C)
92. (C)
93. (C)
94. (B)
95. (D)
96. (D)
97. (A)
98. (B)
99. (C)
100. (D)
101. (C) Remove 'was'. The helping verb of first sentence works for the second one too.
102. (C) When there is a comparison between two persons or things, we use compartive degree. Replace 'the best' by 'better' or 'the better'.
103. (B) Since the sentence is in passive form, replace 'reporting' by 'reported'.
104. (B) Since this is an imperative sentence, it will take 'will you?' or 'would you?' as a question tag.
105. (C) As a sentence is in past tense, 'is' should be replaced by 'was'.
106. (C) A discovery is recognizing something that already exists for the first time, that nobody has found before.
An invention is creating something totally new with one's own ideas and development.

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

