KD Campus
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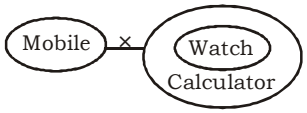
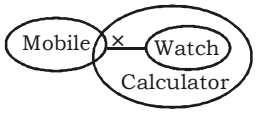
PLOT NO. 2 SSI, OPP METRO PILLAR 150, GT KARNAL ROAD, JAHANGIRPURI DELHI: 110033

SSC MOCK TEST – 187 (SOLUTION)

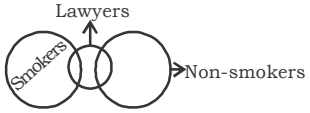
1. (C) As lion lives in den. Similarly rabbit lives in **burrow**.
2. (B) As,
   $9 \times 5 = 45$, $9 \times 4 = 36$
   Similarly,
   $9 \times 7 = 63$, $9 \times 6 = \mathbf{54}$
3. (A) As,
   A D → W Z; B C → X Y
   Similarly,
   E H → **S V**; F G → **T U**
4. (B) Except **Bridge**, others are used for vertical movement.
5. (B) $62 - 37 = 25$
   $85 - 60 = 25$
   $103 - 78 = 25$
   But, **74 – 40 = 25**
6. (D) $R \xrightarrow{+3} U \xrightarrow{+5} Z \xrightarrow{+7} G$
   $G \xrightarrow{+3} J \xrightarrow{+5} O \xrightarrow{+7} V$
   $I \xrightarrow{+3} L \xrightarrow{+5} Q \xrightarrow{+7} X$
   $\mathbf{B \xrightarrow{+4} F \xrightarrow{+4} J \xrightarrow{+7} Q}$
7. (C) **32154**
8. (A) a c **d**/ b d **e**/ c e **f**/ d f **g**/ e g h
9. (C) 8 , 15 , 36 , 99 , 288 , **855**
   +7 +21 +63 +189 +567
   ×3 ×3 ×3 ×3
10. (A) Vijay —Wife— Ena; Vijay —Father— Jackie; Jackie —Brothers— Abhishek; Abhishek —Brother— Rakesh
11. (A) Starting Point → 5km → 10km → 10km → 5km → Final position
    ∴ Required distance = 5 + 5 = **10 km**
12. (D) Word "**RADIO**" cannot be formed.
13. (B) As, N U M B E R
    1 5 6 8 9 7
    and, B A R R E N
    8 4 7 7 9 1
    Similarly, R U B B E R
    7 5 8 8 9 7
14. (A) $36 \times 12 \times 4 \div 6 + 2 - 3$
    After interchanging the signs as per given details,
    $36 - 12 \div 4 + 6 \div 2 \times 3$
    $36 - 3 + 3 \times 3$
    $= 33 + 9 = \mathbf{42}$
15. (B) As, $72 \xrightarrow{-9} 63 + 37 = 63 \xrightarrow{-9} 28$
    and, $54 \xrightarrow{+9} 63 + 13 = 45 \xrightarrow{-9} 04$
    Similarly, $61 \xrightarrow{-9} \mathbf{52} + 53 = \mathbf{52} \xrightarrow{-9} \mathbf{44}$
16. (C) **14** × 1 = 15
    15 + 2 = 17
    17 + 4 = 21
    21 + 8 = 29
    29 + 16 = 45
17. (C) ΔABC, ΔACD, ΔADE
    ΔACE, ΔABE, ΔABD
    ΔADG, ΔGDE, ΔCGE, ΔACG
    ΔAFC, ΔFGD, ΔFCD, ΔAFG, ΔACG
    Total number of triangles = **15**
18. (C) I[st] Condition



    2[nd] Condition



    (i) **True or false**
    (ii) **False or true**
    ∴ Hence, **Either 1 or 2 follows.**
19. (D)
20. (D)



21. (B)
22. (C)
23. (C)
24. (D)
25. (C) W A T E R
    ↓ ↓ ↓ ↓ ↓
    22 99 40 95 30

26 (A) The Ring of Fire is a major area in the basin of the Pacific Ocean where many earthquakes and volcanic eruptions occur.
In a large 40,000 km (25,000 mi) horseshoe shape, it is associated with a nearly continuous series of oceanic trenches, volcanic arcs, and volcanic belts and plate movements.
The Ring of Fire is sometimes called the circum-Pacific belt.
The Ring of Fire is a direct result of plate tectonics: the movement and collisions of lithospheric plates, especially subduction in the northern portion. The southern portion is more complex, with a number of smaller tectonic plates in collision with the Pacific plate from the Mariana Islands, the Philippines, Bougainville, Tonga, and New Zealand.

31. (B) • Emergency Provisions are contained in Part Eighteen of the Constitution of India. The President of India has the power to impose emergency rule in any or all the Indian states if the security of part or all of India is threatened by "war or external aggression or armed rebellion".
- The President can declare three types of emergencies: National emergency. State emergency. Financial emergency.
- Under Article 352 of the Indian Constitution, President can declare a national emergency on three grounds:
- War, or
- External aggression, or
- Armed rebellion
- State level emergency (Art 356) can be proclaimed citing failure of constitutional machinery in the state.
- Financial emergency provision as per Article 360 can be proclaimed when the GoI is in dire need of financial resources.

32. (C) Money Bill refers to a bill (draft law) introduced in the Lower Chamber of Indian Parliament (Lok Sabha) which generally covers the issue of receipt and spending of money, such as tax laws, laws governing borrowing and expenditure of the Government, prevention of black money etc.
A Money Bill may only be introduced in Lok Sabha, on the recommendation of the President. It must be passed in Lok Sabha by a simple majority of all members present and voting. Following this, it may be sent to the Rajya Sabha for its recommendations, which Lok Sabha may reject if it chooses to. If such recommendations are not given within 14 days, it will deemed to be passed by Parliament.
The Speaker certifies a Bill as a Money Bill, and the Speaker's decision is final.

35. (B) Plaster of Paris, quick-setting gypsum plaster consisting of a fine white powder (calcium sulphate hemihydrates), which hardens when moistened and allowed to dry. Plaster of Paris does not generally shrink or crack when dry, making it an excellent medium for casting molds.

36. (C) The Reserve Bank of India is India's central banking institution, which controls the issuance and supply of the Indian rupee. Until the Monetary Policy Committee was established in 2016, it also controlled monetary policy in India.
Bank rate: 6.50%
Interest on reserves: 4.00%
Headquarters: Mumbai
Governor: Shaktikanta Das
Subsidiary: National Housing Bank

37. (D) The Ministry of Defence is charged with coordinating and supervising all agencies and functions of the government relating directly to national security and the Indian armed forces.
Headquarters: New Delhi
Founded: 15 August 1947
Officeholders: Nirmala Sitharaman (Minister), Subhash Bhamre (Minister of State)

38. (D) Gross national product is the value of all goods and services made by a country's residents and businesses, regardless of production location.
GDP is the sum of the market values, or prices, of all final goods and services produced in an economy during a period of time.
GNP = GDP + net property income from abroad.

42. (B) • First Schedule -
I. THE STATES
II. THE UNION TERRITORIES
- Second Schedule -
PART A- Provisions as to the President and the Governors of States
PART B- [Repealed]
PART C- Provisions as to the Speaker and the Deputy Speaker of the House of the People and the Chairman and the Deputy Chairman of the Council of States and the Speaker and the Deputy Speaker of the Legislative Assembly and the Chairman and the Deputy Chairman of the Legislative Council of a State
PART D- Provisions as to the Judges of the Supreme Court and of the High Courts
PART E - Provisions as to the Comptroller and Auditor- General of India

- Third Schedule- Forms of Oaths or Affirmations
- Fourth Schedule- Allocation of seats in the Council of States (Rajya Sabha)
- Fifth Schedule- Provisions as to the Administration and Control of Scheduled Areas and Scheduled Tribes
- Sixth Schedule- Provisions as to the Administration of Tribal Areas in the States of Assam, Meghalaya, Tripura and Mizoram
- Seventh Schedule -
  List I - Union List
  List II - State List
  List III - Concurrent List
- Eight Schedule- List of recognised languages
- Ninth Schedule- Validation of certain Acts and Regulations
- Tenth Schedule- Provisions as to disqualification on ground of defection
- Eleventh Schedule- Powers, authority and responsibilities of Panchayats.
- Twelfth Schedule - Powers, authority and responsibilities of Municipalities, etc.

51. (C) S.P. of article = ₹6720

Marked Price = $\frac{100}{(100-20)} \times 6720$

= ₹8400

Profit% = 40% when discount = 0%

$\frac{CP}{MP} = \frac{100-0}{100+40} = \frac{5}{7}$

$\Rightarrow$ CP = $\frac{5}{7}MP$

$\Rightarrow$ CP = $\frac{5}{7} \times 8400$ = ₹6000

Actual Profit = 6720 - 6000 = ₹720

Required percentage

= $\frac{720}{6000} \times 100 = \mathbf{12\%}$

52. (A) Required salary = $21600 \times \frac{5}{6} \times \frac{5}{6}$

= ₹15000

53. (C) If, a + b + c = 0

Then $a^3 + b^3 + c^3 = 3abc$

Now ATQ,

$x^{1/3} + y^{1/3} + z^{1/3} = 0$

$x + y + z = 3x^{1/3}y^{1/3}z^{1/3}$

Taking cube both sides,

$\mathbf{(x + y + z)^3 = 27xyz}$

54. (B) Number obtained by $3^4 \times 8^2$

= 81 × 64 = 5184

Actual number = 3482

Error% = $\frac{(5184-3482)}{3482} \times 100 = \mathbf{48.8\%}$

55. (A) Speed of train A = 90 km/hr.

Speed of train B = 60 km/hr.

Relative speed = 90 + 60 =150 km/hr.

= $\left(150 \times \frac{5}{18}\right) m/s$

Distance to be travelled by train A = 900 m

Hence, length of train B is irrelevent.

$\therefore$ Time taken = $\frac{900}{150 \times \frac{5}{18}}$

Time taken = **21.6 sec**

56. (D) $\therefore \alpha + \beta = 90°$ (given)

$\sqrt{\sin\alpha.\sec\beta - \sin\alpha.\cos\beta}$

A.T.Q.

$\sqrt{\sin\alpha.\sec(90°-\alpha) - \sin\alpha\cos(90°-\alpha)}$

= $\sqrt{\sin\alpha.\text{cosec}\alpha - \sin^2\alpha}$ = $\sqrt{1-\sin^2\alpha}$

= $\sqrt{\cos^2\alpha}$ = $\cos\alpha.\frac{\sin\alpha}{\sin\alpha}$

= $(\mathbf{\cot\alpha.\sin\alpha})$

57. (B) Given,

$\alpha + \beta = \frac{\pi}{4}$

Taking 'tan' both sides,

$\tan(\alpha + \beta) = \tan\frac{\pi}{4}$

$\Rightarrow \frac{\tan\alpha + \tan\beta}{1 - \tan\alpha.\tan\beta} = 1$

$\Rightarrow \tan\alpha + \tan\beta = 1 - \tan\alpha.\tan\beta$

$\Rightarrow \tan\alpha + \tan\alpha.\tan\beta + \tan\beta = 1$

Adding '1' both sides,

$\Rightarrow \tan\alpha(1 + \tan\beta) + 1(1 + \tan\beta) = 1 + 1$

$\Rightarrow (\tan\alpha + 1)(\tan\beta + 1) = \mathbf{2}$

58. (B) A.T.Q.,

	I	II
CP	10	4
SP	13	3

S.P. of both items is same.

So, $\begin{matrix} & \text{I} & \text{II} \\ \text{CP} & \left(\frac{10}{13}\right)_{\times 3} & \left(\frac{4}{3}\right)_{\times 13} \\ \text{SP} & & \end{matrix} \Rightarrow \begin{matrix} \text{I} & \text{II} \\ 30 & 52 \\ 39 & 39 \end{matrix}$

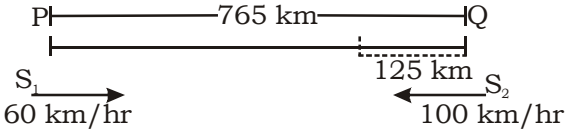
Total CP = 30 + 52 = 82

Total SP = 39 +39 = 78

Loss = SP - CP = 82 - 78 = 4

Loss% = $\frac{4}{82} \times 100 = \mathbf{4\frac{36}{41}\%}$

59. (D) Let S_1 and S_2 be the speed of trains starting from station P and Q respectively.
S_1 = 60 km/hr
S_2 = 100 km/hr



Distance travelled by train starting from Q till 6 pm = $100 \times \frac{75}{60} = 125\,km$

Relative speed = $S_1 + S_2$ = 100 + 60 = 160 km/hr.

Meeting time = $\frac{Remaining\ Distance}{Relative\ Speed}$

Meeting time, = $\frac{765-125}{160}$ = 4 hours.

∴ They will meet at **10:00 pm.**

60. (C) $4x = 20^{-y} = 5^z$

Now, $4 = 20^{-\frac{y}{x}}$ -----(i)

and $5 = 20^{-\frac{y}{z}}$ -----(ii)

$(xy + yz + zx)/xyz = \frac{1}{x}+\frac{1}{y}+\frac{1}{z} = ?$

As we know
4 × 5 = 20 -----(iii)
Putting value of equation (i) and equation (ii) in equation (iii),

$20^{-\frac{y}{x}} \times 20^{-\frac{y}{z}} = 20$

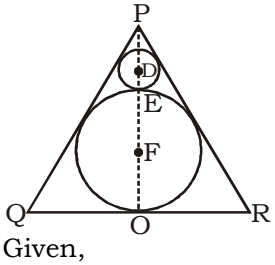
Comparing both sides,

$-\frac{y}{x}-\frac{y}{z}=1$

$\Rightarrow \frac{1}{x}+\frac{1}{z}=-\frac{1}{y}$

$\Rightarrow \mathbf{\frac{1}{x}+\frac{1}{z}+\frac{1}{y}=0}$

61. (B)



Given,
area of circle with centre F = 1386

$\Rightarrow \pi r^2 = 1386$

$\Rightarrow \frac{22}{7}r^2 = 1386$

$\Rightarrow$ r = 21 cm

As, PO is median. ($\therefore$ PQR in equilateral Δ)
Let D be centre of smaller circle

then, $DE = \frac{PE}{3}$

PE = radius of bigger circle

DE = $\frac{21}{3}$ = 7 cm

Area of smaller circle = $\pi(7)^2$

= $\frac{22}{7}\times 7\times 7$ = **154 cm².**

62. (A) $\cot A = \frac{1}{\tan A} = \frac{n}{(n+1)}$

$\Rightarrow \tan A = \frac{n+1}{n}$

$\cot B = \frac{1}{\tan B} = \frac{1}{(2n+1)}$

$\Rightarrow$ tan B = 2n + 1

$\tan(A+B) = \frac{\tan A+\tan B}{1-\tan A.\tan B}$

$= \frac{\frac{n+1}{n}+2n+1}{1-\left(\frac{n+1}{n}\right)(2n+1)}$

$= \frac{\frac{n+1+2n^2+n}{n}}{\frac{n-(2n^2+3n+1)}{n}} = \frac{2n^2+2n+1}{-(2n^2+2n+1)}$

$\therefore$ tan (A + B) = **-1**

63. (B) Share of Harsh = $\frac{13}{29}\times 198737 = 89089$

Share of Deepak = $\frac{16}{29}\times 198737 = 109648$

Now, A.T.Q.,
$\therefore$ 3(89089) - 2(109648) = **47971**

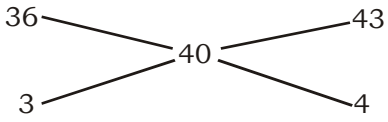
64. (A)

	Time	Total Capacity	Efficiency (Per hour work)
P	10	60	6
Q	20		3
R	15		4

Water filled by Q till 10:00 am
= 3 × 2 = 6 units
Water filled by R till 10:00 am
= 4×1/2 = 2 units
After 10:00 am all three pipe start working together,
Total water filled till 10:00 am
= 6 + 2 = 8 units
Remaining portion = 60 - 8 = 52 units
Time taken to fill remaining portion by three pipes = $\frac{52}{13}$ = 4 hours.

$\therefore$ Tank will be filled at 10 + 4 = **02:00 pm.**

65. (A) Cost price of mixture = $52 \times \frac{100}{130} = ₹40$



Required ratio = **3 : 4**

66. (C) Total number of girls in class 6th

$= 6500 \times \frac{17}{100} \times \frac{40}{100} =$ **442**

67. (C) Total number of boys= 3172
Total number of girls = 3328
Required difference= 3328 – 3172
= **156**

68. (C) Required percentage

$$= \frac{\frac{6500 \times 21 \times 60}{100 \times 100} - \frac{6500 \times 9 \times 40}{100 \times 100}}{\frac{6500 \times 9 \times 40}{100 \times 100}} \times 100$$

$$= \frac{819 - 234}{234} \times 100 =$$ **250%**

69. (C) Required percentage

$= \frac{60 - 40}{40} \times 100 =$ **50%**

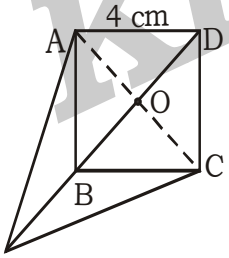
70. (A) Ratio of profit = $\frac{A}{B} = \frac{(5 \times 4) + (4 \times 8)}{(7 \times 6) + (6 \times 6)}$

$\frac{A}{B} = \frac{52}{78} = \frac{2}{3}$

B's share = $\frac{3}{5} \times 1434 = \frac{4302}{5}$

= **₹860.4**

71. (B) $\therefore$ $\Delta ABE \sim \Delta BCE$ (all sides are equal)



Now,
area (ΔABE) = area (ΔAOE) - area(ΔAOB)
$\therefore$ AC and BD are diagonal of square

AO = OB = $\frac{4\sqrt{2}}{2} = 2\sqrt{2}$

[$\because$ Diagonal of square = $\sqrt{2}$ (side)]

area (ΔAOE) = $\frac{1}{2} \times OE \times AO$

$= \frac{1}{2} \times 2\sqrt{2} \times \left(2 + 2\sqrt{2}\right)$

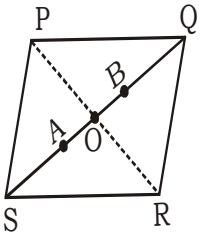
$= \left(4 + 2\sqrt{2}\right)$ cm^2

area (ΔAOB) = $\frac{1}{4}$ × (area of square ABCD)

$= \frac{1}{4} \times 4 \times 4 = 4cm^2$

Required area = $4 + 2\sqrt{2} - 4 =$ **$2\sqrt{2}$ cm²**

72. (D)



OQ = OS (Diagonals of parallelogram bisect each other)

OS = QO = $\frac{42}{2} = 21$ cm

AO = OB = $21 \times \frac{1}{3} = 7$ cm

(centroid divides median in 2 : 1)
AB = OA + OB = 7 + 7 = **14 cm.**

73. (A) Let the speed of boat and stream be x and y respectively.
A.T.Q.,

Time = $\frac{D}{S}$

$12 = \frac{120}{x + y} \Rightarrow x + y = 10$ ---------(i)

and, $11 = \frac{77}{x - y} \Rightarrow x - y = 7$ ----------(ii)

Adding (i) and (ii),
x + y + x – y = 17
$\Rightarrow$ ***x* = 8.5 , y = 1.5**

74. (A) Let the numbers be 5x and 13 x.
LCM = Product of common factors × Product of uncommon factor
$\therefore$ L.C.M. of given numbers = 5×13× x = 65x

$\Rightarrow x = \frac{715}{65} = 11$

$\therefore$ Smaller number = 5 × 11 **= 55**

75. (C) CI - SI = $\frac{Pr^2}{100^2}$

$\Rightarrow 36 = \frac{P \times 5^2}{100^2}$

$\Rightarrow$ P = **₹14400**

MEANINGS IN ALPHABETICAL ORDER

Word	Meaning in English	Meaning in Hindi
Cripple	cause someone to become unable to walk or move properly	विकलांग, निर्बल करना
Despondency	low spirits from loss of hope or courage	निराशा
Dissimulate	hide one's thoughts, feelings, or character	छिपाना
Euphonious	pleasing to the ear	श्रुतिमधुर
Fluke	an unlikely chance occurrence, especially a surprising piece of luck	आकस्मिक, सफलता
Fastidious	very attentive to and concerned about accuracy and detail	कठिपतस ये लृप्त होने वाला
Gobble	eat something hurriedly and noisily	हड़प जाना, जल्दी खाना
Gregarious	sociable	मिलनसार
Herbivorous	feeding on plants	शाकाहारी
Hypochondria	abnormal chronic anxiety about one's health	रोगभ्रम, भ्रम
Infallible	incapable of making mistakes or being wrong	कभी गलती न करने वाला
Insecticide	a substance used for killing insects	कीटनाशक
Inflict	impose something unwelcome on	थोपना
Imponderable	difficult or impossible to estimate or assess	अतिसूक्ष्म
Iconoclast	a person who attacks or criticizes cherished beliefs or institutions	रूढ़िगत विचारों का विरोधी
Malnutrition	lack of proper nutrition, caused by not having enough to eat	कुपोषण
Relegate	assign an inferior rank or position to	निर्वासित करना
Patronage	the support given by a patron	संरक्षण
Pertinent	applicable to a particular matter	उचित
Sully	make something dirty	मैला करना
Tawdry	cheap and of poor quality	सस्ता
Temerity	excessive confidence or boldness	उतावला पन

SSC MOCK TEST - 187 (ANSWER KEY)

1.	(C)	26.	(A)	51.	(C)	76.	(C)
2.	(B)	27.	(D)	52.	(A)	77.	(B)
3.	(A)	28.	(B)	53.	(C)	78.	(B)
4.	(B)	29.	(D)	54.	(B)	79.	(D)
5.	(B)	30.	(B)	55.	(A)	80.	(A)
6.	(D)	31.	(B)	56.	(D)	81.	(B)
7.	(C)	32.	(C)	57.	(B)	82.	(A)
8.	(A)	33.	(B)	58.	(B)	83.	(C)
9.	(C)	34.	(B)	59.	(D)	84.	(A)
10.	(A)	35.	(B)	60.	(C)	85.	(C)
11.	(A)	36.	(C)	61.	(B)	86.	(C)
12.	(D)	37.	(D)	62.	(A)	87.	(A)
13.	(B)	38.	(D)	63.	(B)	88.	(B)
14.	(A)	39.	(B)	64.	(A)	89.	(C)
15.	(B)	40.	(C)	65.	(A)	90.	(A)
16.	(C)	41.	(C)	66.	(C)	91.	(D)
17.	(C)	42.	(B)	67.	(C)	92.	(A)
18.	(C)	43.	(B)	68.	(C)	93.	(D)
19.	(D)	44.	(B)	69.	(C)	94.	(C)
20.	(D)	45.	(D)	70.	(A)	95.	(A)
21.	(B)	46.	(D)	71.	(B)	96.	(B)
22.	(C)	47.	(C)	72.	(D)	97.	(A)
23.	(C)	48.	(C)	73.	(A)	98.	(D)
24.	(D)	49.	(B)	74.	(A)	99.	(C)
25.	(C)	50.	(B)	75.	(C)	100.	(B)

76. (C) Use of article 'a' with 'social unrest' is wrong. It is uncountable. So no article should be used.

77. (B) Replace 'called off' with 'called for'. 'Called off' means to stop something from happening. While 'call for' means to demand (answer, explanation) मांग करना. According to the sentence after the airstrikes, meeting is started.

78. (B) The sentence is in the past form so use 'would' instead of 'will'. 'Would' means future in the past.

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