All India Free Mock Test for Delhi Police (Solutions)

S1. Ans.(c)
Sol.
$28 + 4 = 32 + 4 = 36$
$40 + 6 = 46 + 6 = 52$
$12 + 37 = 49 + 37 = 86$
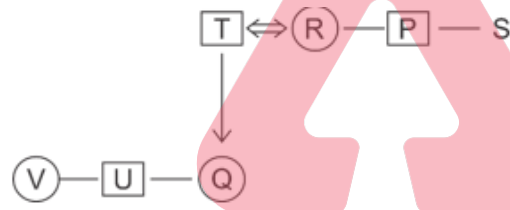
Alternate Sol.
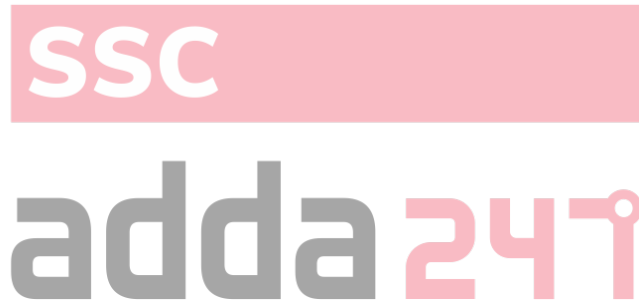$\frac{36+28}{2} = 32$
$\frac{52+40}{2} = 46$
$\frac{86+12}{2} = 49$

S2. Ans.(c)
Sol.

P is maternal uncle of V.

S3. Ans.(a)

S4. Ans.(b)
Sol.
$14: 14^2 = 196$
$11: 11^2 = 121 \neq 123$
$15: 15^2 = 225$
$12: 12^2 = 144$

S5. Ans.(a)
Sol.
$J = 10 \times 2 = 20$

B	A	T	
2	1	20	$= 23 \times 2 = 46$

C	R	I	C	K	E	T	
3	18	9	3	11	5	20	$= 69 \times 2$
$= 138$

S6. Ans.(d)
Sol. 19: 19+1= 20^2 = 400
24: 24+1=25^2 = 625

S7. Ans.(b)
Sol.
S = 4A –(i)
also S + 10 = 2(A + 10) –(ii)
on solving S = 20, A=5

S8. Ans.(d)
Sol. Except (d) all others are synonyms.

S9. Ans.(d)
Sol. Pencil is stationery, similarly Pilates is an exercise

S10. Ans.(d)

S11. Ans.(b)
Sol. Except (b), all follow (–2., –3, –4, –5) pattern.

S12. Ans.(b)
Sol.
After 5 year
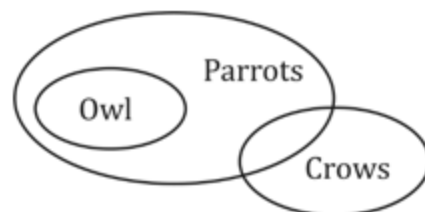　V　　　F
　x　　　5x
ATQ,
X – 5 + 5x – 5 = 50
6x – 10 = 50
x = 10
Current age of Vinayak = 10 – 5
= 5 year

S13. Ans.(c)
Sol.

I. ✖
II. ✖
III. ✖
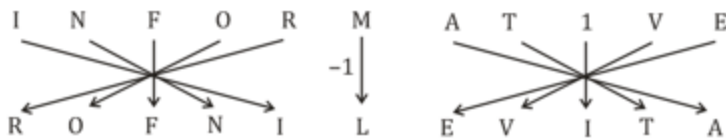Either I or III follow.

S14. Ans.(a)

S15. Ans.(c)

S16. Ans.(a)

S17. Ans.(a)
Sol.

$24 + 12 - 6 \times 6 \div 2 = 18$
$= 36 - 6 \times \frac{6}{2}$
$= 36 - 18$
$= 18$

S18. Ans.(d)
Sol.

S19. Ans.(d)
Sol. $7 : 7^3 + 1 = 344$
$11 : 11^3 + 1 = 1332$

S20. Ans.(c)
Sol. (+4) pattern follow.

S21. Ans.(b)

S22. Ans.(b)
Sol. Cloak Room is the place where suitcase is kept.
Same as
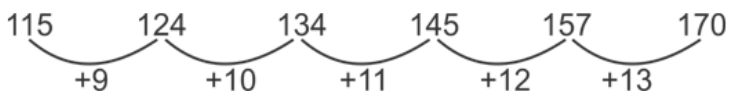Bank is the place where money is kept

S23. Ans.(a)
Sol.
3-2-1
3-4-5

S24. Ans.(a)
Sol.

S25. Ans.(b)
Sol. Political Science is the part of social science
And chemistry is the part of science

S26. Ans.(a)
Sol. 73rd Amendment of the Indian Constitution was passed on the recommendation of Balwant Rai Mehta committee.

S27. Ans.(a)
Sol. Contingency Fund of each State Government is established under Article 266 of the Constitution – this is in the nature of an imprest placed at the disposal of the Governor to enable him/her to make advances to meet urgent unforeseen expenditure, pending authorization by the State Legislature.

S28. Ans.(a)
Sol. Rate of GDP growth is a major indication of the state of the economy of a country. Economic growth is the increase in the market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in gross domestic product.

S29. Ans.(b)
Sol. The tertiary sector of the economy (also known as the service sector) is one of the three economic sectors. The service sector consists of activities where people offer their knowledge and time to improve productivity. Examples of tertiary industries may include the following: telecommunication, hospitality industry/tourism, mass media, healthcare/ hospitals, information technology, banking, insurance, investment management, accountancy, legal services, consulting, retail sales, real estate and education.

S30. Ans.(a)
Sol. Laffer curve is a representation of the relationship between possible rates of taxation and the resulting levels of government revenue. It illustrates the concept of taxable income elasticity— i.e., taxable income will change in response to changes in the rate of taxation.

S31. Ans.(a)
Sol. Higher order biotic level includes populations. A population is a summation of all the organisms of the same group or species, which live in the same geographical area, and have the capability of interbreeding. Population is defined as the area where inter-breeding is potentially possible between any pair within the area.

S32. Ans.(c)
Sol. Hydrological cycle is a part of Geological cycle. The example of hydrological cycle is water cycle in which sun plays an important role. This cycle is the only source of water for living organism present on earth surface.

S33. Ans.(a)
Sol. Rajiv Gandhi Khel Ratna Award is the highest sporting award in India. Bajrang Punia and Deepa Malik are awarded with this award in 2019. Viswanathan Anand was the first awardee of the Rajiv Gandhi Khel Ratna Award in 1992.

S34. Ans.(a)
Sol. Glimpses of World History, a book published by Jawaharlal Nehru in 1934, is a panoramic sweep of the history of humankind. It is a collection of 196 letters on world history written from various prisons in British India from 1930–1933.

S35. Ans.(d)
Sol. Dodge, Goal line, through pass, is some terms associated with the game of Hockey.

S36. Ans.(c)
Sol. Indian and French armies will conduct joint counter-terrorism drills under 'Exercise Shakti-2019' in the Mahajan field firing range in Rajasthan from October 31 to November 13.

S37. Ans.(b)
Sol. The 2019 meeting of Council of Heads of Government (CHG) of SCO was held in Tashkent.

S38. Ans.(a)
Sol. China has officially launched research and development work for its 6G mobile networks. The country only just turned on its 5G networks earlier this month, ahead of an initial 2020 schedule.

S39. Ans.(d)
Sol. PS Sreedharan Pillai was sworn-in as the new governor of Mizoram.

S40. Ans.(b)
Sol. Abhishek Mohan Nayar born 8 October 1983 in Secunderabad, Telangana is an Indian international cricketer. He is an all-rounder who bats left-handed and bowls right-arm medium pace.

S41. Ans.(c)
Sol. The Great Himalayan National Park (GHNP), is one of India's national parks, is located in Kullu region in the state of Himachal Pradesh. The park was established in 1984.

S42. Ans.(c)
Sol. A type of colloid, of the form of one solid dispersed in another continuous solid is called Solid sol. Coloured Gems is an example of solid sol.

S43. Ans.(a)
Sol. 'Municipality' means an institution of self-government constituted under Article 243P.

S44. Ans.(c)
Sol. The Prithviraj Raso is a Brajbhasha epic poem about the life of the 12th century Indian king Prithviraj Chauhan. It is wriiten by Chand Bardai, who according to the text was a court poet of the king.

S45. Ans.(d)
Sol. Five Indian state shares their boundaries with Nepal. The Indian states that touch the border with Nepal are Bihar, Uttar Pradesh, Uttarakhand, West Bengal and Sikkim.

S46. Ans.(a)
Sol. The elements in each group have the same number of electrons in the outer orbital. Those outer electrons are also called valence electrons. They are the electrons involved in chemical bonds with other elements.

S47. Ans.(b)
Sol. The Constitution lays down only two qualifications for the appointment of a person as a governor are:
1. He should be a citizen of India.
2. He should have completed the age of 35 years.

S48. Ans.(c)
Sol. Muhammad-bin-Tughluq was one of the most remarkable rulers of his time. He was highly educated and was well versed in Arabic and Persian language. He was well read in the subjects of religion, philosophy, astronomy, mathematics, medicine and logic.

S49. Ans.(d)
Sol. The aphelion is the point in the orbit of a planet or comet where it is farthest from the Sun. The Earth reaches its aphelion when the Northern Hemisphere is experiencing summer on 4th July.

S50. Ans.(d)
Sol. Cloud seeding is the process of spreading either dry ice or more commonly silver Iodide into the upper part of clouds to try to stimulate the precipitation process and form rain.

S51. Ans.(b)
Sol. The widest continental shelf in the world extends 1,210 km off the coast of Siberia, Russia, into the Arctic Ocean.

S52. Ans.(b)
Sol. The Godavari River is the largest river of south India, it has length of 1465 Kilometers, and it originates from Triambakeshwar in Maharashtra.

S53. Ans.(c)
Sol. Red soil is formed as a result of weathering of metamorphic and igneous rocks. The red colour of the soil comes from the high percentage of iron content. It is found on eastern and southern part of Deccan plateau.

S54. Ans.(d)
Sol. The State Election Commissions constituted under the Constitution (Seventy-third and Seventy-fourth) Amendments Act, 1992 for each State / Union Territory are vested with the powers of conduct of elections to the Corporations, Muncipalities, Zilla Parishads, District Panchayats, Panchayat Samitis, Gram Panchayats and other local bodies. They are independent of the Election Commission of India.

S55. Ans.(d)
Sol. The Attorney General of India is appointed by President of India.

S56. Ans.(c)
Sol. Kerala has topped among large states on overall health performance in NITI Aayog's Health Index followed by Andhra Pradesh and Maharashtra.

S57. Ans.(b)
Sol. The Minister of Social Justice and Empowerment holds cabinet rank as a member of the Council of Ministers. The current minister is Thawar Chand Gehlot.

S58. Ans.(b)
Sol. The 2019 G20 Osaka summit was the fourteenth meeting of the G20, a forum of 19 countries and the EU that together represent most of the world economy. It was held on 28–29 June 2019 at the International Exhibition Center in Osaka, Japan.

S59. Ans.(b)
Sol. Tamil Yeoman (Cirrochroa thais) is a butterfly species endemic to Western Ghats, has been declared as the state butterfly of Tamil Nadu.

S60. Ans.(c)
Sol. Uttar Pradesh Government has launched massive door to door "DASTAK campaign against Acute Encephalitis Syndrome (AES) and Japanise Encephalitis (JE)" to eradicate deadly diseases from the state. It was launched in association with UNICEF (United Nations Children's Fund).

S61. Ans.(c)
Sol. On June 2, the Chinese People's Liberation Army-Navy (PLAN) test fired the JL-3 submarine-launched ballistic missile (SLBM) in Bohai Bay.

S62. Ans.(b)
Sol. As per the Henley Passport Index, India is holding 84th position.

S63. Ans.(a)
Sol. A Western Disturbance is an extratropical storm originating in the Mediterranean region that brings sudden winter rain to the north-western parts of the Indian subcontinent.

S64. Ans.(d)
Sol. About 90% of the ozone in the Earth's atmosphere is found in the region called the Stratosphere. This is the atmospheric layer between 16 and 48 kilometres (10 and 30 miles) above the Earth's surface.

S65. Ans.(a)
Sol. The Great Barrier Reef is the world's largest coral reef system. The reef is located in the Coral Sea, off the coast of Queensland, Australia in Pacific Ocean.

S66. Ans.(d)
Sol. Marina Beach in Chennai is the longest natural beach in India.

S67. Ans.(b)
Sol. Damodar Valley region is most rich in coal deposits.

S68. Ans.(d)
Sol. Rainfall caused by intense evaporation in equatorial areas is called Conventional rainfall.

S69. Ans.(b)
Sol. BOP account, like a typical business account, is based on double entry system which contains two sides - Credit side and Debit side. Any transaction which brings in foreign exchange (currency) is recorded on credit side whereas any transaction that causes a country to lose foreign exchange is recorded on debit side.

S70. Ans.(c)
Sol. The Third Five-year Plan, stressed agriculture and improvement in the production of wheat, but the brief Sino-Indian War of 1962 exposed weaknesses in the economy. In 1965–1966, India fought a War with Pakistan. The war led to inflation and the priority was shifted to price stabilisation.

S71. Ans.(d)
Sol. French Resistance legend & Nazi camps survivor Yvette Lundy who helped Jewish prisoners of war to escape prison during the Nazi occupation of France passed away at the age of 103.

S72. Ans.(a)
Sol. The National Mission for Clean Ganga (NMCG) under the Ministry of Jal Shakti has jointly organised an IDEA thon on "The future of River Management' with the National Institute of Urban Affairs (NIUA).

S73. Ans.(c)
Sol. The Maharashtra government has announced the inclusion of state's whole population under the Mahatma Jyotiba Phule Jan Aarogya Yojana.

S74. Ans.(b)
Sol. Eminent historian, author and columnist Ronald Vivian Smith passed away. Two of his noted books on the national capital are 'Delhi: Unknown Tales of a City' and 'The Delhi that No-one Knows'.

S75. Ans.(d)
Sol. 17-year-old, Indian-origin girl, Vaneeza Rupani has been honoured of naming the NASA's 1st Mars helicopter 'Ingenuity'.

S76. Ans.(b)
Sol. Divisible by 72 means divisible by 8 and 9.
last 3 digit must be divisible by 8
31y ÷ 8 we get
y = 2
sum of digits must be multiple of 9.
So, 7 + 8 + 9 + x + 5 + 3 + 1 + 2
= 8 + x
So, x = 1
Now, 5x – 3y = 5 – 6 = -1

S77. Ans.(c)

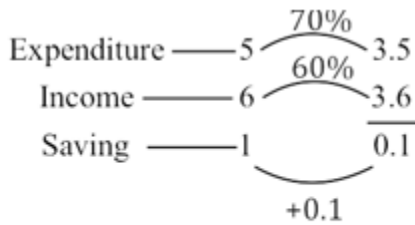**Sol.**

$$\text{Expenditure} \overset{70\%}{\underset{5}{\longrightarrow}} 3.5$$
$$\text{Income} \overset{60\%}{\underset{6}{\longrightarrow}} 3.6$$
$$\text{Saving} \underset{1}{\longrightarrow} \overline{0.1}$$

$$+0.1$$

Increase in savings $= \dfrac{0.1}{1} \times 100\%$

$$= 10\%$$

S78. Ans.(a)

Sol.

Speed of A be x
Speed of B be y
ATQ,

$$\frac{15}{x} - \frac{15}{y} = \frac{30}{60}$$

or, $y - x = \dfrac{xy}{30}$ ...(i)
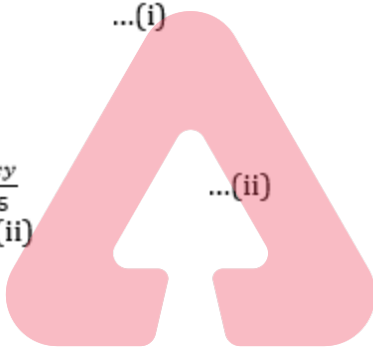
Also,

$$\frac{15}{y} - \frac{15}{2x} = 1$$

$$\Rightarrow 2x - y = \frac{2xy}{15} \qquad \text{...(ii)}$$

adding (i) & (ii)

$$x = \frac{5xy}{30}$$

$$y = 6 \text{ km/hr}$$

S79. Ans.(b)

Sol.

$5 \div 5 \text{ of } 5 \times 2 + 2 \div 2 \text{ of } 2 \times 5 - (5 - 2) \div 6 \times 2$

following BODMAS

$$\frac{2}{5} + \frac{5}{2} - 1 \Rightarrow \frac{19}{10}$$

S80. Ans.(d)

Sol.

$$20\% = \frac{1}{5}$$

i.e.   If S.P. = 5 Units
          C.P. = 6 Units

C.P. $= 800 \times \dfrac{6}{5} = 960$

Next SP $= 960 \times \dfrac{5}{4} = 1200$

S81. Ans.(a)

Sol.

Total work = (7 + 5 + 4) × 35
= 560 units
Word done by A and B in 28 days = (7 + 5) × 28 = 336 units.
Remaining work = 224 units
Time taken by C = $\frac{224}{4}$ = 56 days.

S82. Ans.(a)

Sol.

Divisibility by 8
Last 3 digits must be divisible by 8.
i.e.   91y is divisible by 8 so y = 2
Divisibility by 11, difference of the sum of alternate digits must be 0 or 11
So,   x = 4
Now,   (5x − 8y) = 20 − 16 = 4

S83. Ans.(d)

Sol.

$\frac{A}{B} = \frac{5}{4}$ $\frac{C}{A+B} = \frac{7}{20}$

Let   A + B = 180
A = 100, B = 80, C = 63
Required % = $\frac{100-63}{100}$ × 100%
=37%

S84. Ans.(b)

Sol.

Let no. be a, b and c
i.e. $\frac{a+b}{2} + c = 168$
or a + b + 2c = 336 ...(i)
similarly,
b + c + 2a = 348...(ii)
also,   c + a + 2b = 360 ... (iii)
Adding
(i), (ii) and (iii)
= 4 (a + b + c) = 1044
= a + b + c = 261
= Average = $\frac{a+b+c}{3} = \frac{261}{3}$ = 87

S85. Ans.(d)

Sol.

$\frac{a^3+b^3}{a^2+b^2-ab} = (a+b)$
100 (675+325) = 100000

S86. Ans.(a)
Sol.

LCM of (15, 18, 24) =360

ATQ

$\frac{360k+8}{13} = 368$

Put k = 1,2,3,........

K= 2 is divisible by 13

Number = 360 x 2 + 8 = 728

Sum of digits = 7 + 2 + 8 = 17

S87. Ans.(a)
Sol. Sum of No.

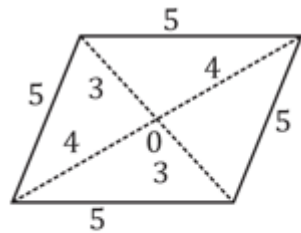$\Rightarrow (4+5) \times 16$

$= 144$

S88. Ans.(b)
Sol.

Speed   60   80

time   4   :   3

$1 \rightarrow 8$

15−7=8

Right Time = 24 – 7 = 17 min.

S89. Ans.(d)
Sol.

Ar. of Rhombus $= \frac{1}{2} \times d_1 d_2$

$= \frac{1}{2} \times 8 \times 6 = 24$ cm^2

S90. Ans.(d)
Sol.

A		B		C
5500	:	65000	:	75000
11	:	13	:	15

Total profit = 39 → 87750

A's share $= \left(\frac{87750}{39} \times \frac{80}{100} \times 11\right) + 87750 \times \frac{20}{100}$

$= 19800 + 17550 = 37350$

S91. Ans.(b)

Sol. Virtual teams are a great way to enable teamwork in situations where people are not sitting in the same physical office at the same time. Such teams are used more and more by companies and other organizations to cut travel, relocation, real estate, and other business costs.

S92. Ans.(b)

Sol. When data are processed, interpreted, organized, structured or presented so as to make them meaningful or useful, they are called information.

S93. Ans.(a)

Sol. Supercomputer PARAM 8000 (made by C-DAC) was launched on July 01, 1991 is considered India's first supercomputer.

S94. Ans.(c)

Sol. An embedded system is a computer system with a dedicated function within a larger mechanical or electrical system, often with real-time computing constraints.

S95. Ans.(a)

Sol. A password is an un-spaced sequence of characters used to determine that a computer user requesting access to a computer system is really that particular user.

S96. Ans.(d)

Sol. A clipboard is a temporary storage area for data that the user wants to copy from one place to another.

S97. Ans.(a)

Sol. A spreadsheet is primarily designed to provide a digital form of the paper-based worksheet. There are numerous rows and columns for storage and available support for mathematical formulas and calculations, data sorting and analysis Integration and visualization of data in the form of graph and charts. Example: Microsoft Excel and Lotus.
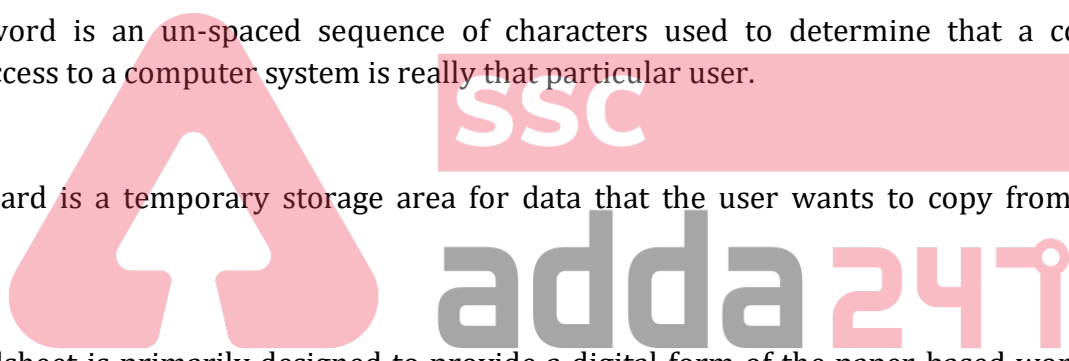
S98. Ans.(d)

Sol. Pop up ads are advertisements that show up in a new browser window.

S99. Ans.(d)

Sol. Biometric authentication systems compare a biometric data capture to stored, confirmed authentic data in a database.

S100. Ans.(a)

Sol. Multiplexing (or mux-ing) is a way of sending multiple signals or streams of information over a communications link at the same time in the form of a single, complex signal; the receiver recovers the separate signals, a process called demultiplexing.