## SSC HS Level (Tier-I) Practice Set - 2023

1. (a) Water flows continuously in the river but water remains stagnant in the pond.
2. (b) The sound of owl is called Hoots. Similarly, the sound of hen is called clucks.
3. (c) Cytology is that branch of Biology which deals with cell. Similarly, Ornithology is that branch of Biology which deals with birds.
4. (d) $7 \times 7+1=50$

Similarly, $11 \times 11+1=122$
5. (a) $\left.\begin{array}{rl}210 & =(15)^{2}-15 \\ 380 & =(20)^{2}-20\end{array}\right] 15+5=20$
$182=(14)^{2}-14$
$14+5=19$
Therefore, ? $=(19)^{2}-19$
$=361-19=342$
6. (a) Rohit is the brother of Kala.

Kala is the wife of Dilip.
खुप্ভির্স
Therefore, Dilip is brother-in-law of Rohit.
7. (b) Mother of boy's aunt means maternal grandmother of boy.
Son of maternal grandmother means maternal uncle of the boy.
Therefore, the girl is cousin sister of the boy.
8. (c) $\mathrm{E} \Rightarrow 5$,

T E A $\Rightarrow 20+5+1=26$
Therefore, T E A C H E R
$\Rightarrow 20+5+1+3+8+5+18=60$
9. (b)

| $+\Rightarrow \div$ | $\times \Rightarrow+$ |
| :--- | :--- |
| $-\Rightarrow \times$ | $\div \Rightarrow-$ |

(a) $46 \times 6 \div 4-5+3=74$
$\Rightarrow 46+6-4 \times 5 \div 3=74$
$\Rightarrow 46+6-4 \times \frac{5}{3}=74$
$\Rightarrow 46+6-\frac{20}{3}=74$
$\Rightarrow 52-\frac{20}{3}=74$
$\Rightarrow \frac{156-20}{3}=74$
$\Rightarrow 136 \neq 74 \times 3$
खुप्विিर्य
(b) $46-6+4 \times 5 \div 3=71$
$\Rightarrow 46 \times 6 \div 4+5-3=71$
$\Rightarrow 46 \times \frac{6}{4}+5-3=71$
$\Rightarrow 69+5-3=71$
(c) $46 \div 6 \times 4-5+3=75.5$
$\Rightarrow 46-6+4 \times 5 \div 3=75.5$
$\Rightarrow 46-6+4 \times \frac{5}{3}=75.5$
$\Rightarrow 46-6+\frac{20}{3} \neq 75.5$
(d) $46 \times 6-4+5 \div 3=70.1$

फ्याগ্ভির্স
$\Rightarrow 46+6 \times 4 \div 5-3=70.1$
$\Rightarrow 46+6 \times \frac{4}{5}-3=70.1$
$\Rightarrow 46+\frac{24}{5}-3=70.1$
$\Rightarrow \frac{230+24-15}{5}=70.1$
$\Rightarrow \frac{239}{5} \neq 70.1$

## फ्राष्डिज्य

10. (d)

$$
\begin{array}{|l|l|}
\hline \div \Rightarrow x & \times \Rightarrow- \\
\hline-\Rightarrow+ & +\Rightarrow \div \\
\hline
\end{array}
$$

$48+6-12 \div 2+10=$ ?
$\Rightarrow ?=48 \div 6+12 \times 2 \div 10$
$\Rightarrow ?=8+12 \times \frac{2}{10}$
$\Rightarrow ?=20 \times \frac{2}{10}=4$
11. (d)


फ़ाजिएরर्य

P is in South-West direction with respect to Y .
12. (a) O N E
$\downarrow \downarrow \downarrow$
231
F I V E
$\downarrow \downarrow \downarrow \downarrow$
$\begin{array}{llll}9 & 6 & 4 & 1\end{array}$
फ़ापिएय
Therefore,
N I N E
$\downarrow \downarrow \downarrow \downarrow$
$\begin{array}{llll}3 & 6 & 3 & 1\end{array}$

13．（b）Number of days from September 15,2000 to September 15， 2001
$=365+1=366$
$366 \div 7=2$ odd days
$\therefore$ September 15， 2001
$\Rightarrow$ Saturday

## खणविएर्ज

14．（c）Clearly，there are six blocks in the diagram．
15．（c）S O M N A M B UL I S M
16．（c）There is no＇ C ＇letter in the given word．
There is no＇L＇letter in the given word．
There is no＇ V ＇letter in the given word．
17．（a）Total age of husband，wife and their child 3 years ago was $27 \times 3=81$ years
Total age of wife and child five years ago was $20 \times 2=40$ years

$\therefore$ Total age of wife and child 3 years ago
$=40+(2 \times 2)$
$=40+4=44$ years
$\therefore$ Age of husband three years ago
$=81-44=37$ years
Therefore，the present age of husband
$=37+3=40$ years
18．（c）Amit $=17$ years
Rakesh $=17-5=12$ years
$\therefore$ Anil $=12+3=15$ years
19．（b）Age of Mani $=60$ years


Age of Prabhu $=\frac{60}{2}=30$ years
Age of Ramona $=\frac{30}{2}=15$ years
20．（c）


22．（c）M A P S R O
$\downarrow \downarrow \downarrow \downarrow \downarrow \downarrow$
$1 \quad \mathrm{u} \quad \mathrm{m} \quad \mathrm{a} \quad \mathrm{s} \quad \mathrm{d}$
23．（d）Both the Premises are Particular Affirmative （I－type）．No Conclusion follows from the two Particular Premises．
24．（c） $6 \times 12 \times 10=720$
$8 \times 9 \times 5=360$
धुपाप्जियन
$\therefore ?=\frac{336}{12 \times 4}=7$

25．（d）First Row $\Rightarrow 3 \times 5=15$
Second Row $\Rightarrow 5 \times 7=35$
Third Row $\Rightarrow 9 \times 5=45$

## 

26．（d）Buddha was against caste．His religion was open to all，to shudras，women and even repentant criminals．The Buddhist scriptures were available to all men and women．Buddhism encouraged abolition of distinctions in society and strengthened the principle of social equality．
27．（d）The Indian Santoor is an ancient string musical instrument native to Jammu and Kashmir，with origins in Persia．A primitive ancestor of this type of instruments was invented in Mesopotamia（1600－911 BC）．The Santoor is a trapezoid－shaped hammered dulcimer often made of walnut，with seventy two strings．The special－shaped mallets（mezrab）are lightweight and are held between the index and middle fingers．A typical Santoor has two sets of bridges，providing a range of three octaves．
28．（c）At its core，sovereignty is typically taken to mean the possession of absolute authority within a bounded territorial space．There is essentially an internal and external dimension of sovereignty．Internally，a sovereign government is a fixed authority with a settled population that possesses a monopoly on the use of force．It is the supreme authority within its territory． Externally，sovereignty is the entry ticket into the society of states．

29．（a）The epicenter is the point on the Earth＇s surface that is directly above the hypocenter or focus， the point where an earthquake or underground explosion originates．In the case of earthquakes， the epicenter is directly above the point where the fault begins to rupture，and in most cases，it is the area of greatest damage．However，in larger events，the length of the fault rupture is much longer，and damage can be spread across the rupture zone．

खाড্仑िर्य
30．（c）The India surf team，participating for the first time，in the Asian championship has bagged the bronze medal．Two Tamil Nadu youths also broke into the top 10 Asian rankings．As a team， India scored 2，708 points securing the third position，thereby winning the bronze medal．

31．（a）Per capita income or average income or income per person is the mean income within an economic aggregate，such as a country or city．

It is calculated by taking a measure of all sources of income in the aggregate (such as GDP or Gross National Income) and dividing it by the total population.

आাভিভর্स
32. (b) Pali is the language in which the texts of the Theravada school of Buddhism are preserved. The Pali texts are the oldest collection of Buddhist scriptures preserved in the language in which they were written down.
33. (b) Habeas corpus is a bulwark of personal freedom. It is a legal action, or writ, through which a person can seek relief from the unlawful detention of him or herself, or of another person. It protects the individual from harming him or herself, or from being harmed by the judicial system. The writ of habeas corpus has historically been an important instrument for the safeguarding of individual freedom against arbitrary state action.

ऊुप्িির্स
34. (a) The Earth is composed predominantly of a large mass of igneous rock with a very thin veneer of weathered material-namely, sedimentary rock. Igneous rocks are formed from the solidification of magma, which is a hot molten or partially molten rock. Igneous and metamorphic rocks make up $90-95 \%$ of the top 16 km of the Earth's crust by volume.

Øुড্ভির্स
35. (d) The Sanskrit language, once ignored under the Buddhist and Jain influence, was patronised during the Gupta period. It was recognised as the court language and was used in their inscriptions. Gradually it became the lingua franca of India. Some of the wellknown scholars who flourished during this period were: Kalidasa, Vishakhadutta, Shudraka, Bharavi, Dandin, Subandhu, etc.

फ्याธ্仑िর্स
36. (d) DG Rakesh Pal, an alumnus of the Indian Naval Academy, has been designated as the 25th Director General of the Indian Coast Guard (ICG). He joined the Indian Coast Guard in January 1989. Rakesh Pal holds the recognition of being the first gunner of the Indian Coast Guard (ICG). He has also been conferred with the Tatrakshak Medal (TM) in the year 2013 and President Tatrakshak Medal (PTM) for his distinguished service in 2018.
37. (c) The spectrum of the Sun's solar radiation is close to that of a black body with a temperature of about 5,800 K. The Sun emits Electromagnetic radiation across most of the electromagnetic
spectrum. Although the Sun produces Gamma rays as a result of the nuclear fusion process, these super high energy photons are converted to lower energy photons before they reach the Sun's surface and are emitted out into space. nuclear fusion is a nuclear reaction in which two or more atomic nuclei join together, or "fuse", to form a single heavier nucleus. During this process, matter is not conserved because some of the mass of the fusing nuclei is converted to energy which is released. Fusion is the process that powers active stars. The fusion of two nuclei with lower masses than iron (which, along with nickel, has the largest binding energy per nucleon) generally releases energy, while the fusion of nuclei heavier than iron absorbs energy.
38. (c) Habeas corpus means "you must present the person in court". It is a writ (legal action) which requires a person under arrest to be brought before a judge or into court. This ensures that a prisoner can be released from unlawful detention, in other words, detention lacking sufficient cause or evidence.

ख्याजिएর
39. (b) Bara Imambara is an imambara complex in Lucknow, India, built by Asaf-ud-Daulah, Nawab of Lucknow, in 1784. It is also called the Asafi Imambara. Bara means big, and an imambara is a shrine built by Shia Muslims for the purpose of Azadari.

फ्याप्ञिय
40. (c) Rihand Dam is a concrete gravity dam located at Pipri in Sonbhadra District in Uttar Pradesh, India. It is on the border of Chhattisgarh and Uttar Pradesh. It is on the Rihand River which is the tributary of the Son River. The Rihand River flows through the Indian states of Chhattisgarh and Uttar Pradesh. The Rihand rises from Matiranga hills, in the region south west of the Mainpat plateau, which is about 2,100 meters above mean sea level. The river flows north roughly through the central part of Surguja district for 160 kilometres. The Rihand and its tributaries form a fertile plain in the central part of the district stretching from around Ambikapur to Lakhanpur and Pratappur. Thereafter, it flows north into Sonbhadra district of Uttar Pradesh via Singrauli district of Madhya Pradesh, where it is called Rhed and finally joins the Son.

ख्याভিির
41. (c) The atmosphere of Earth is a layer of gases surrounding the planet Earth that is retained by Earth's gravity. The atmosphere protects life on

Earth by absorbing ultraviolet solar radiation, warming the surface through heat retention (greenhouse effect), and reducing temperature extremes between day and night (the diurnal temperature variations). Air is the name given to the atmosphere used in breathing and photosynthesis. Dry air contains roughly (by volume) $78.09 \%$ nitrogen, $20.95 \%$ oxygen, $0.93 \%$ argon, $0.039 \%$ carbon dioxide, and small amounts of other gases. Air also contains a variable amount of water vapor, on average around $1 \%$. While air content and atmospheric pressure vary at different layers, air suitable for the survival of terrestrial plants and terrestrial animals is currently only known to be found in Earth's troposphere and artificial atmospheres. Air is mainly composed of nitrogen, oxygen, and argon, which together constitute the major gases of the atmosphere. The remaining gases are often referred to as trace gases, among which are the greenhouse gases such as water vapor, carbon dioxide, methane, nitrous oxide, and ozone. Filtered air includes trace amounts of many other chemical compounds. आ m্ভির্स
42. (d) If a person's wage rises by ten per cent and prices rise by more than ten per cent, his real wage goes down.
43. (d) The second edition of the National Multidimensional Poverty Index (MPI) was released recently by NITI Aayog. फ़्णाগ্ভির্শ According to a report by NitiAayog, a remarkable 13.5 crore individuals managed to escape multidimensional poverty, as measured by advancements in healthcare, education, and living standards, over a span of five years until March 2021. Uttar Pradesh, Bihar, and Madhya Pradesh witnessed the most rapid reduction in poverty during this period.

काजिएর
44. (c) Galena is the natural mineral form of lead (II) sulfide. It is the most important lead ore mineral. Galena is one of the most abundant and widely distributed sulfide minerals. It crystallizes in the cubic crystal system often showing octahedral forms. It is often associated with the minerals sphalerite, calcite and fluorite. Galena deposits often contain significant amounts of silver as included silver sulfide mineral phases or as limited solid solution within the galena structure. These argentiferousgalenas have long been the most important ore of silver in mining. In addition zinc, cadmium, antimony, arsenic and bismuth
also occur in variable amounts in lead ores.
45. (c) The Naujawan Bharat Sabha was founded by Bhagat Singh in March 1926 and was declared illegal under the Criminal Law Amendment Act of 1908 in September 1934. Its purpose was to help foster revolution against the British Raj by gathering together worker and peasant youth.
46. (a) The Gavari dance-drama of Bhils has its origin in the story of Shiva and Bhasmasur. फुणाषिएर्य
47. (d) Any potato variety can be propagated vegetatively by planting tubers, pieces of tubers, cut to include at least one or two eyes, or also by cuttings, a practice used in greenhouses for the production of healthy seed tubers. Some commercial potato varieties do not produce seeds at all (they bear imperfect flowers) and are propagated only from tuber pieces.
48. (a) To ensure the availability of high-quality education, the Madhya Pradesh government has decided to establish 9,000 'CM Rise’ schools.During his visit to Shajapur district, Chief Minister Shivraj Singh Chouhan inaugurated a CM Rise School in Gulana village. He also announced that the school would be dedicated to the renowned jurist and social reformer, Babasaheb Ambedkar. ऊुण্িির্स
49. (c) Most of the west flowing rivers of Indian peninsula do not form delta. They form estuary. Narmada is one of them. It is so because rocky terrain of the Western Ghats does not allow the rivers to spread out much, and there is not sufficient plain stretch of land between the Arabian sea and Western Ghats for Narmada to slowdown and bifurcate into distributaries. Narmada forms an estuary of 21 km at the Gulf of Khambat. The river is presently partially navigable in the estuary reach around Bharuch but the river has never been a transport artery.
50. (c) The President of India is the head of state of the Republic of India. The President is the formal head of the executive, legislature and judiciary of India and is the commander-in-chief of the Indian Armed Forces. फुणছिएन
51. (b) When we divide 1000 by 225 , quotient $=4$ When we divide 5000 by 225 , quotient $=22$ $\therefore$ Required answer $=22-4=18$
52. (b) Let the number be $10 \mathrm{x}+\mathrm{y}$ where $\mathrm{y}<\mathrm{x}$.

Number obtained by interchanging the digits $=$ $10 y+x$
$\therefore$ Difference $=10 \mathrm{x}+\mathrm{y}-10 \mathrm{y}-\mathrm{x}$
$=9 x-9 y=9(x-y)$
Hence, the difference is always exactly divisible by 9 .
53. (c) $1 . \overline{27}=1 \frac{27}{99}=1 \frac{3}{11}=\frac{14}{11}$

कुप्विিर्स
54. (b) LCM of $3,5,6,8,10$ and $12=120$
$\therefore$ Required number
$=120 x+2$, which is exactly divisible by 13 .
$120 x+2=13 \times 9 x+3 x+2$
Clearly $3 x+2$ should be divisible by 13 .
For $\mathrm{x}=8,3 \mathrm{x}+2$ is divisible by 13 .
$\therefore$ Required number
$=120 \mathrm{x}+2=120 \times 8+2$
$=960+2=962$
फुप्विিर्य
55. (a) Greatest capacity of measuring vessel
$=$ HCF of 403 litres, 434 litres and 465 litres = 31 litres

## Illustration :

HCF of 403 and 434
403 ) 434 ( 1

$$
\begin{gathered}
\left.\frac{403}{31}\right) 403(13 \\
\frac{31}{93} \\
\frac{93}{x}
\end{gathered}
$$

HCF of 31 and 465
$31) 465(15$
$\frac{31}{155}$
$\frac{155}{x}$
$\Rightarrow 31$ litres
56. (d) $3 . \overline{36}-2 . \overline{05}+1 . \overline{33}$
$=3 \frac{36}{99}-2 \frac{05}{99}+1 \frac{33}{99}$
$=3+\frac{36}{99}-2-\frac{5}{99}+1+\frac{33}{99}$
$=(3-2+1)+\left(\frac{36}{99}-\frac{5}{99}+\frac{33}{99}\right)$
$=2+\left(\frac{36-5+33}{99}\right)$
$=2+\frac{64}{99}=2 \frac{64}{99}=2 . \overline{64}$
57. (d) Expression
$=\frac{\frac{5}{4} \div \frac{3}{2}}{\left(\frac{2+30-27}{30}\right)}$
फ्राप्िए।
$=\frac{\frac{5}{4} \times \frac{2}{3}}{\frac{5}{30}}=\frac{5}{6} \times \frac{30}{5}=5$
58. (c) Expression
$=\sqrt{192}-\frac{1}{2} \sqrt{48}-\sqrt{75}$
$=\sqrt{64 \times 3}-\frac{1}{2} \sqrt{16 \times 3}-\sqrt{25 \times 3}$ भुज्ञिए
$=8 \sqrt{3}-\frac{1}{2} \times 4 \sqrt{3}-5 \sqrt{3}$
$=8 \sqrt{3}-2 \sqrt{3}-5 \sqrt{3}$
$=\sqrt{3}=1.7321$
59. (d) Number of students in the class $=x$ (let)
$\therefore$ Number of girls $=50-\mathrm{x}$
According to the question,
$\mathrm{x} \times 70+(50-\mathrm{x}) \times 75=50 \times 72$
$\Rightarrow 70 \mathrm{x}+3750-75 \mathrm{x}=3600$
$\Rightarrow 3750-5 \mathrm{x}=3600$
$\Rightarrow 5 \mathrm{x}=3750-3600=150$
$\Rightarrow \mathrm{x}=\frac{150}{5}=30$
ख्याजिए स्य
60. (a) Sixth number $=6 \times 60+6 \times 65-11 \times 63$
$=360+390-693=57$
61. (c) Let the present age of two brothers be $x$ and $2 x$ years.
Now, $\frac{x-5}{2 x-5}=\frac{1}{3}$
$\Rightarrow 3 \mathrm{x}-15=2 \mathrm{x}-5$
$\Rightarrow 3 \mathrm{x}-2 \mathrm{x}=15-5$
$\Rightarrow \mathrm{x}=10$
$\therefore$ Their present age $=10$ and 20 years
After 5 years their required ratio
$=\frac{15}{25}=\frac{3}{5}=3: 5$
62. (c) The present age of boys are
$5 x$ and $6 x$ years respectively.
After 2 years,
$\frac{5 x+2}{6 x+2}=\frac{7}{8} \Rightarrow 42 x+14=40 x+16$
$\Rightarrow 2 \mathrm{x}=2 \Rightarrow \mathrm{x}=1$

Ratio after 12 years
$\Rightarrow 5 x+12: 6 x+12=17: 18$
63. (c) Required per cent
$=\frac{40}{80} \times 100=50$

64. (a) Let the larger number be $x$
$\Rightarrow$ According to question,
$x-20=20 \%$ of $x$
or, $x-20=\frac{x}{5}$
or, $x-\frac{x}{5}=20$
or, $5 \mathrm{x}-\mathrm{x}=20 \times 5$
or, $4 \mathrm{x}=20 \times 5$
$\Rightarrow x=5 \times 5=25$
65. (c) $x+y+z=13$
$x^{2}+y^{2}+z^{2}=69$
$(x+y+z)^{2}$
$=x^{2}+y^{2}+z^{2}+2(x y+y z+z x)$
$\Rightarrow(13)^{2}=69+2(x y+y z+z x)$
$\Rightarrow 2(\mathrm{xy}+\mathrm{yz}+\mathrm{zx})$
$=169-69=100$
$\Rightarrow \mathrm{xy}+\mathrm{yz}+\mathrm{zx}=\frac{100}{2}=50$
66. (b) $x=\sqrt{3}-\frac{1}{\sqrt{3}}$
$y=\sqrt{3}+\frac{1}{\sqrt{3}}$
$x+y=\sqrt{3}-\frac{1}{\sqrt{3}}+\sqrt{3}+\frac{1}{\sqrt{3}}=2 \sqrt{3}$
$x y=\left(\sqrt{3}-\frac{1}{\sqrt{3}}\right)\left(\sqrt{3}+\frac{1}{\sqrt{3}}\right)$
$=3-\frac{1}{3}=\frac{9-1}{3}=\frac{8}{3}$
$\therefore \frac{\mathrm{x}^{3}}{\mathrm{y}}+\frac{\mathrm{y}^{2}}{\mathrm{x}}=\frac{\mathrm{x}^{3}+\mathrm{y}^{3}}{\mathrm{xy}}$
$=\frac{(x+y)^{3}-3 x y(x+y)}{x y}$
$=\frac{(2 \sqrt{3})^{3}-3 \times \frac{8}{3}(2 \sqrt{3})}{\frac{8}{3}}$
$=\frac{24 \sqrt{3}-16 \sqrt{3}}{\frac{8}{3}}$
$=\frac{8 \sqrt{3} \times 3}{8}=3 \sqrt{3}$
67. (c) $\sin \left(\theta+30^{\circ}\right)=\frac{3}{\sqrt{12}}$
$=\frac{3}{2 \sqrt{3}}=\frac{\sqrt{3}}{2}$
ख़ाबिएर्ज
$\Rightarrow \sin \left(\theta+30^{\circ}\right)=\sin 60^{\circ}$
$\Rightarrow \theta+30^{\circ}=60^{\circ}$
$\Rightarrow \theta=60-30=30^{\circ}$
$\therefore \cos ^{2} \theta=\cos ^{2} 30^{\circ}$
$=\left(\frac{\sqrt{3}}{2}\right)^{2}=\frac{3}{4}$
68. (b) $\sin \theta+\sin ^{2} \theta=1$
$\Rightarrow \sin \theta=1-\sin ^{2} \theta=\cos ^{2} \theta$
$\therefore \cos ^{2} \theta+\cos ^{4} \theta$
फ़ापिएर्य
$=\cos ^{2} \theta+\left(\cos ^{2} \theta\right)^{2}$
$=\cos ^{2} \theta+\sin ^{2} \theta=1$
69. (a)

$\mathrm{DE} \| \mathrm{BC} \therefore \frac{\mathrm{AD}}{\mathrm{AB}}=\frac{\mathrm{AE}}{\mathrm{AC}}$
$\frac{\mathrm{AD}}{\mathrm{BD}}=\frac{3}{5} \Rightarrow \frac{\mathrm{BD}}{\mathrm{AD}}=\frac{5}{3}$
क्याप्षिर्ज
$\Rightarrow \frac{\mathrm{BD}}{\mathrm{AD}}+1=\frac{5}{3}+1$
$\Rightarrow \frac{\mathrm{BD}+\mathrm{AD}}{\mathrm{AD}}=\frac{5+3}{3}$
$\Rightarrow \frac{\mathrm{AD}}{\mathrm{AD}}=\frac{8}{3}$
$\Rightarrow \frac{\mathrm{AD}}{\mathrm{AB}}=\frac{3}{8}$
$\therefore \frac{\mathrm{AD}}{\mathrm{AB}}=\frac{\mathrm{AE}}{\mathrm{AC}}$
$\Rightarrow \frac{3}{8}=\frac{\mathrm{AE}}{4} \Rightarrow \mathrm{AE}=\frac{3 \times 4}{8}$
$=1.5 \mathrm{~cm}$.
70. (c)

$\angle \mathrm{ROQ}=96^{\circ}$
In $\triangle \mathrm{OQR}$
$\angle \mathrm{OQR}+\angle \mathrm{ORQ}+\angle \mathrm{QOR}=180^{\circ}$
$\Rightarrow \frac{1}{2} \angle \mathrm{PQR}+\frac{1}{2} \angle \mathrm{PRQ}+96^{\circ}=180^{\circ}$
$\Rightarrow \frac{1}{2}(\angle \mathrm{PQR}+\angle \mathrm{PRQ})$
$=180^{\circ}-96^{\circ}=84^{\circ}$
$\Rightarrow \angle \mathrm{PQR}+\angle \mathrm{PRQ}=2 \times 84^{\circ}=168^{\circ}$
खुण্ডির্ज

In $\triangle \mathrm{PQR}$,
$\therefore \angle \mathrm{QPR}=180^{\circ}-168^{\circ}=12^{\circ}$
71. (c) When the circumference is doubled, it means radius of circle is doubled, as circumference $=$ $2 \pi r$
Since, area $=\pi r^{2}$, it will quadrupled.
72. (b) For the equilateral triangle of side a,

In radius $=\frac{a}{2 \sqrt{3}}$
ख্যাড্ভির্ন
Circum-radius $=\frac{\mathrm{a}}{\sqrt{3}}$
$\therefore$ Required ratio $=\pi\left(\frac{\mathrm{a}}{\sqrt{3}}\right)^{2}: \pi\left(\frac{\mathrm{a}}{2 \sqrt{3}}\right)^{2}$
$=\frac{1}{3}: \frac{1}{12}=4: 1$
73. (c) On putting $y=-x$ in the equation $5 y+7 x=24$,
$-5 x+7 x=24$
$\Rightarrow 2 \mathrm{x}=24 \Rightarrow \mathrm{x}=12$
$\& y=-12$
$\therefore \mathrm{m}=\mathrm{x}=12, \mathrm{n}=\mathrm{y}=-12$
$\Rightarrow \mathrm{m}+\mathrm{n}=12-12=0$
74. (c) $\frac{x}{y}=2 \Rightarrow x=2 y$
$\Rightarrow \mathrm{x}-2 \mathrm{y}=0$
$\therefore 5 \mathrm{x}^{2}-13 \mathrm{xy}+6 \mathrm{y}^{2}$
$=5 x^{2}-10 x y-3 x y+6 y^{2}$
$=5 \mathrm{x}(\mathrm{x}-2 \mathrm{y})-3 \mathrm{y}(\mathrm{x}-2 \mathrm{y})$
$=(\mathrm{x}-2 \mathrm{y})(5 \mathrm{x}-3 \mathrm{y})$
$=0 \times(5 x-3 y)=0[U s i n g(i)]$
खुप्विज्य
$\frac{x}{y}=\frac{3}{4}($ Given $)$
$\therefore \frac{5 x-2 y}{7 x+2 y}=\frac{5 \frac{x}{y}-2}{7 \frac{x}{y}+2}$
凸াভ্ভির্स
$=\frac{5 \times \frac{3}{4}-2}{7 \times \frac{3}{4}+2}=\frac{\frac{15-8}{4}}{\frac{21+8}{4}}=\frac{7}{29}$
76. (c) does not rain will replace does not rains When the Main clause has a Modal Verb (will, shall, would) and is in Simple Future, the If clause will be in Simple Present Tense.
The form is as follows :

77. (c) Use of that is incorrect.

While changing an Interrogative Sentence starting with a wh-word (where, what, why), no connective is used.
78. (b) takes over will replace overtakes.
take over : to gain control of a political party, a country, etc.
overtake (Verb) : to go past a moving vehicle or person ahead of you because you are going faster than he is
Hence, takes over is the right usage
79. (c) accomplice (N.) agrees with

कुप्िष्जिय
with (Prep.) (a person)
accomplice (N.) agrees with in (Prep.) (some crime)
In this case, with (Prep.) is the right usage.
80. (b) detach from : to become/make separated from something.
Here, from (Prep.) is the right usage.
81. (d) congratulate (V.) : agrees with on (Prep.) while expressing one's good wishes in the context of a happy event
congratulate (V.) : agrees with for (Prep.) while expressing praise for someone's achievement.
Look at the sentences :
क্ডা|্ভির্स
Congratulations on your promotion!
Congratulations for saving the farm from foreclosure!
Here, on is the right usage.
82. (c) Here, Indef. Art - a is the right usage.
83. (b) stagnated (Adj.) : to be or become stagnant (not moving); to stop to run/flow
Here, stagnated is the right usage. ऊुश्रिस्त
84. (b) flourish (Verb) : to develop quickly and be successful; thrive
thrive (Verb) : to become and continue to be successful, strong, healthy, etc.; flourish
destroy (Verb) : to damage something so badly that it no longer exists, works, etc.
raise (Verb) : to lift or move something to a higher level
create (Verb) : to make something happen or exist
85. (d) agony (Noun) : extreme physical or mental pain anguish (Noun) : severe pain, mental suffering
 trouble (Noun) : a problem, worry, difficulty, etc.
conflict (Noun) : a situation in which there are opposing ideas, opinions, feelings or wishes anger (Noun) : the state of being angry
86. (d) discourage (Verb) : to try to prevent something or somebody from doing something
dissuade (Verb) : to persuade somebody not to do something; discourage
encourage (Verb) : to give support, courage or hope फ़ापिएन worry (Verb) : to keep thinking about unpleasant things that might happen or about problems that you have
disturb (Verb) : to interrupt somebody when they are trying to sleep, work, etc.
87. (b) a damp squib : an event that is disappointing because it is not so exciting or impressive as expected

- The party turned out to be a bit of a damp squib. The best option is a disappointing result.

88. (a) in cold blood : acting in a way that is deliberately cruel; with no pity

आাড্ভির্स

- The killer walked up and shot the woman in cold blood.
The best option is angrily.

89. (c) to die in harness : to die while in service (job/ work)

- My friend, Rashi, died in harness.

The best option is to die while in service.
90. (c) to feather one's nest : to make oneself rich, especially in a way that is wrong and dishonest

- Ravish feathered his nest through his connection with big business houses.
The best option is to profit in a dishonest way.

91. (a) yielding (Adjective) : soft and easy to bend or move when you press it; willing to do what other people want

कुपाप्जिर्य
adamant (Adjective) : determined not to change your mind or to be persuaded about something
permissive (Adjective) : allowing or showing a freedom of behaviour that many people do not approve of
liberal (Adjective) : willing to understand and respect other people's behaviour, opinions, etc.; generous
tolerant (Adjective) : able to accept what other people say or do even if you do not agree to it; able to survive or operate in difficult conditions
92. (d) sensitive (Adjective) : aware of and being able to understand other people and their feelings
callous (Adjective) : unfeeling; not caring about other people's feelings or suffering फुण্ভির্র persuasive (Adjective) : able to force somebody to do or believe something
caring (Adjective) : kind, helpful and showing that you care about other people
gentle (Adjective) : calm and kind
93. (c) possible (Adjective) : that can be done or achieved
incredible (Adjective) : unbelievable; impossible or very difficult to believe फुण्িिए credulous (Adjective) : too ready to believe things and therefore easy to trick; gullible
probable (Adjective) : likely to happen, to exist or to be true
creditable (Adjective) : of a quite good standard and deserving praise or approval; praise-worthy; morally good; admirable
94. (d) brewery फ़ाডिएर्त
brewery (N.) : a factory where beer is made
bakery (N. ) : a place where bread and cakes are made and/or sold
cloakroom (N.) : a room in a public building where people can leave coats, bags, etc. for a time
tannery (N.) : a place where animal skins are tanned and made into leather
95. (a) flora

खाভিষর্র
flora (N.): the plants of a particular area, type of environment or period of time
fauna (N.) : the animals living in an area or in a particular period of history
landscape (N.) : everything you can see when you look across a large area of land
environment ( $\mathbf{N}$.) : the conditions that affect the behaviour and development of somebody/ something

फुप्रिएन
96. (d) differences
97. (b) beautification
98. (c) hasn't been desilted
99. (c) resistance
100.(d) a

