FCI (Tier- 1) Exam. Model Practice Set

Answers with Explanation

1. (b) Here, **subject it (Africa) is singular**. Hence, **singular Verb** i.e., **and it contains about one fifth** is the right usage

2. (d) **No error**

3. (c) Here, use of **the** is improper.
   The sentence is in **Past**. Hence, **I visited Delhi** is the right usage.

4. (b) **gregarious (Adj.) :** sociable; liking to be with other people
   Here, **gregarious** is the right usage.

5. (d) **submit (Verb)** agrees with **to (Prep.)**
   Here, **to** is the right usage.

6. (a) **assure (Verb)** agrees with **of (Prep.)**
   Here, **of** is the right usage.

7. (a) **sullen (Adj.) :** bad – tempered and not speaking
   elated (Adj.) : very happy and excited
   Here, **sullen** is the right usage.

8. (c) **explicit (Adj.) :** clear and easy to understand
   expletive (Noue) : a word, especially a rude word, that you use when you are angry, or in pain
   implicate (Verb) : to show or suggest
   implicit (Adj.) : suggested without being directly expressed.
   Here, **explicit** is the right usage.

9. (c) **roam**
   wander (V.) : to walk around a place without any purpose; roam.

10. (b) **pause**
    hesitate (V.) : to be worried about doing something ; to be slow to speak or act; pause.

11. (a) **capacity**
    caliber/calibre (N.) : the quality of something, especially a person's ability; capacity.

12. (c) **storm in a tea cup :** a lot of anger or worry about something that is not important
    ● The argument at the office turned into a **storm in a tea cup**.
    The best option is **commotion over a trivial matter.**

13. (c) **take for granted :** to pre-suppose as certainly true; to accept readily
    ● We **take** so many things **for granted** in our houses.
    The best option is **to accept readily.**

14. (a) **too many irons in the fire :** to be involved in several activities/areas of business at the same time, hoping that at least one will be successful
    ● It is better if you don't **have too many irons in the fire**.
    The best option is **is engaged in too many enterprises at the same time.**

15. (c) **read between the lines :** find more meanings than the words appear to express
    ● **Reading between the lines** of the letter, she realised that her friend was in great trouble.
    The best option is **find more meaning than the words appear to express.**

16. (c) **increase (V.)** : enlarge; expand; swell; become or make greater.
    mitigate (V.) : to make something less harmful, serious etc; alleviate; reduce; lighten; assuage.

17. (a) **squander (V.)** : misuse; waste something especially money or time in a reckless manner;
    accumulate (V.) : to gradually get more and more of something over a period of time; amass.

18. (b) **firm (Adj.)** : not likely to change; strongly fixed.
    fickle (Adj.) : changing frequently, especially as regards one's loyalties or affections; changeable; variable
    debilitating (V.) : to make somebody's body/ mind weaker
    repulsive (Adj.) : prossessing the ability to repel
    yielding (Adj.) : tending to give in/surrender/ agree.

19. (b) **expurgate**
    expurgate (V.) : to remove/leave out parts of a piece of writing/ or a conversation, while printing/ reporting it, because you think those parts could offend people
    exterminate (V.) : to kill all the members of a group of people/animals
    extirpate (V.) : to destroy/get rid of something that is bad/not wanted

20. (c) **ovine**
    ovine (N.) : connected with sheep
    canine (N.) : connected with dogs
    bovine (N.) : connected with cows

feline (N.) : connected with cats

21. (b) The correctly spelt word is **envelope**
22. (a) The correctly spelt word is **character**
23. (b) The correctly spelt word is **drunkenness**
24. (d) SPRQ
25. (b) SRPQ
26. (c) Pitch is an area of ground prepared and marked for the game of cricket. Similarly, Ring is an enclosed space in which the game of boxing is carried out.
27. (a) Nose is the part of the face above mouth. Similarly, finger is a part extending from palm.
28. (c) **Given set**
(3, 18, 36)
$3 \times 6 = 18$ and $18 \times 2 = 36$
Similarly,
(4, 24, 48)
$4 \times 6 = 24$ and $24 \times 2 = 48$
29. (a)
$$\begin{array}{ccc} 63 & 49 & 35 \\ \downarrow & \downarrow & \downarrow \\ 7\times9 & 7\times7 & 7\times5 \end{array}$$
Similarly,
$$\begin{array}{ccc} 81 & 63 & 45 \\ \downarrow & \downarrow & \downarrow \\ 9\times9 & 9\times7 & 9\times5 \end{array}$$
30. (b) $2 \times 7 = 14$
and, $2 \times 8 = 16$
Similarly,
$3 \times 7 = 21$
$3 \times 8 = 24$
31. (d) Only son of Gopal's father means Gopal himself. Thus, Gopal is father of Govind.
32. (d) Rajiv and Arun are sons of Sonia. Therefore, Rajiv is nephew of Sunil.
33. (d)
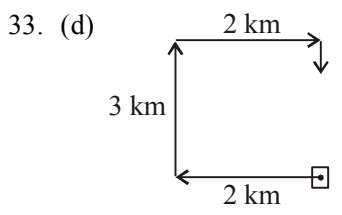
Now, Ramesh is facing South.
34. (c)

P $\Rightarrow \div$	Q $\Rightarrow \times$
R $\Rightarrow +$	S $\Rightarrow -$

12 Q 15 P 3 R 4 S 6 = ?
$\Rightarrow 12 \times 15 \div 3 + 4 - 6$
$\Rightarrow 12 \times 5 + 4 - 6$
$\Rightarrow 60 + 4 - 6 = \boxed{58}$

35. (b)

A $\Rightarrow +$	B $\Rightarrow \times$
C $\Rightarrow \div$	D $\Rightarrow -$

9 A 2 B 6 D 4 C 2 = ?
$\Rightarrow ? = 9 + 2 \times 6 - 4 \div 2$
$\Rightarrow ? = 9 + 12 - 2 = 19$
36. (b) When it appears 6 : 30 in mirror, the real time would be 5 : 30.
37. (a) The actual time would be 8:10
38. (b) $12 \times 4 = 48$
$\sqrt{25} = 5$
$16 \times 4 = 64$
$\sqrt{81} = 9$
Similarly,
$15 \times 4 = \boxed{60}$
$\sqrt{49} = 7$
39. (b) The sum of the upper right number and the lower left number is equal to the lower right number while their product gives the upper left number.
First arrangement
$7 + 4 = 11$ and $7 \times 4 = 28$
Second arrangement
$5 + 5 = 10$ and $5 \times 5 = 25$
Third arrangement
$8 + 3 = 11$ and $8 \times 3 = \boxed{24}$
40. (a) There is no 'R' letter in the given word. Therefore, the word ALERT cannot be formed.

$\boxed{LEGA}$ L I Z $\boxed{ATION}$
$\Rightarrow$ A L E G A T I O N
$\boxed{L}$ E $\boxed{GAL}$ I Z $\boxed{AT}$ I O $\boxed{N}$
$\Rightarrow$ G A L L A N T
$\boxed{L}$ E G $\boxed{A}$ L I Z $\boxed{AT}$ I O $\boxed{N}$
$\Rightarrow$ N A T A L
41. (b) There is no 'B' letter in the given word. So, the word TABULATION cannot be formed.

$\boxed{RECAP}$ I $\boxed{TU}$ L A T I O N
$\Rightarrow$ CAPTURE
$\boxed{RE}$ C A P I T U $\boxed{LATION}$
$\Rightarrow$ RELATION
$\boxed{REC}$ A $\boxed{PITU}$ L A T I O N
$\Rightarrow$ PICTURE

42. (d) All apples are bananas.

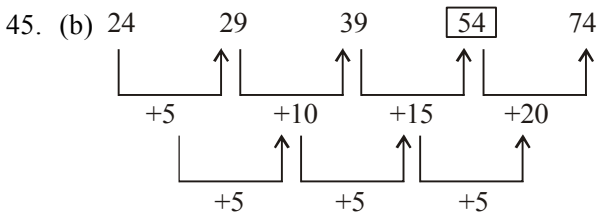All bananas are sweet.
A + A ⇒ A – type of Conclusion
"All apples are sweet."
Conclusion I is the Implication of it.
Conclusion II is Converse of the first Premise.

43. (b) All metals are silver.

All silver are diamond.
A + A ⇒ A – type of Conclusion
"All metals are diamond".
This is Conclusion II.

44. (b) Mondays ⇒ 1st, 8th, 15th,
22nd and 29th
23rd → Tuesday
24th → Wednesday
25th → Thursday

45. (b)

46. (b) $(1)^2 = 1$;
$1 + 6 = 7 \Rightarrow (7)^2 = 49$;
$7 + 4 = 11 \Rightarrow (11)^2 = 121$;
$11 + 2 = 13 \Rightarrow (13)^2 = 169$
$13 + 4 = 17 \Rightarrow (17)^2 = 289$

47. (c) M = $\boxed{13}$
↓
Position Number in English alphabet
M   A   T
↓   ↓   ↓
13 + 1 + 20 = $\boxed{34}$
Sum of the position numbers of the letters.
Therefore,
W   A   X
↓   ↓   ↓
23 + 1 + 24 = $\boxed{48}$

48. (a) M A M M A L
↓ ↓ ↓ ↓ ↓ ↓
13 1 13 13 1 12
Position number of each Alphabet.
Therefore,

R   E   P   T   I   L   E
↓   ↓   ↓   ↓   ↓   ↓   ↓
18   5   16   20   9   12   5

49. (b) Six cubes are visible and four cubes are invisible. Thus, there are 10 cubes.

50. (a) First Column
$\sqrt{25} + \sqrt{36} \Rightarrow 5 + 6 = 11$
Second Column
$\sqrt{49} + \sqrt{81} \Rightarrow 7 + 9 = 16$
Third Column
$\sqrt{16} + \sqrt{64} \Rightarrow 4 + 8 = 12$

51. (c) Here, 357 is exactly divisible by 17.
∴ Required remainder = Remainder obtained on dividing 39 by 17 = 5

52. (d) If the quotient in the first case be x.
Then, number = 5x + 3
On Squaring, the number = $(5x + 3)^2$
$= 25x^2 + 30x + 9$
On dividing by 5, remainder = 9 – 5 = 4

53. (c) $1.\overline{27} = 1\frac{27}{99} = 1\frac{3}{11} = \frac{14}{11}$

54. (b) $LCM = \frac{LCM\ of\ 2,4,5}{HCF\ of\ 3,9,6} = \frac{20}{3}$

55. (d) First of all we find HCF of 391 and 323.

```
323) 391 (1
     323
     68) 323 (4
         272
         51) 68 (1
             51
             17) 51 (3
                 51
                 ×
```
∴ Number of classes = 17

56. (b) 0.008 × 0.01 × 0.072 ÷ (0.12 × 0.0004)
= 0.008 × 0.01 × 0.072 ÷ (0.000048)
$= 0.008 \times 0.01 \times \frac{0.072}{0.000048}$
$= \frac{0.00000576}{0.000048} = 0.12$

57. (c) Let '*' be H
$\left[\frac{(H)}{21} \times \frac{(H)}{189}\right] = 1$
⇒ $(H)^2 = 21 \times 189$
⇒ $H = \sqrt{21 \times 189} = 63$

58. (b) $\sqrt{841} = 29$

$$\frac{\sqrt{841}}{10000} = \frac{29}{10000}$$

$$\Rightarrow \frac{\sqrt{841}}{100000000} = \frac{29}{10000}$$

$$\therefore \sqrt{0.00000841} = 0.0029$$

59. (c) D's weight = $80 \times 4 - 84 \times 3$
= 320 – 252 = 68 kg.
E's weight = 68 + 3 = 71 kg.
Total weight of (A + B + C + D + E)
= $84 \times 3 + 68 + 71$
= 252 + 68 + 71 = 391 kg.
Total weight of (B + C + D + E)
= $79 \times 4 = 316$ kg.
∴ A's weight = 391 – 316 = 75 kg.

60. (b) Seventh observation
= $65 \times 7 + 7 \times 75 - 13 \times 70$
= 455 + 525 – 910
= 980 – 910 = 70

61. (b)

Monkey	Banana	Time
12 ↑	12 ↓	12 ↓
4	4 ↓	x ↓

$$\therefore \left.\begin{array}{c} 4:12 \\ 12:4 \end{array}\right\} :: 12:x$$

$$\Rightarrow 4 \times 12 \times x = 12 \times 12 \times 4$$

$$\Rightarrow x = \frac{12 \times 12 \times 4}{4 \times 12} = 12 \text{ minutes}$$

62. (b) Boys : Girls = 7 : 5

Number of boys $= \frac{7}{12} \times 720 = 420$

Number of girls $= \frac{5}{12} \times 720 = 300$

Let x girls be admitted.
According to the question,
420 = 300 + x
$\Rightarrow$ x = 420 – 300 = 120

63. (a) Number to be added = x (let)

$$\therefore \frac{320 \times 10}{100} + x = \frac{230 \times 30}{100}$$

$$\Rightarrow 32 + x = 69$$

$$\Rightarrow x = 69 - 32 = 37$$

64. (b) Required number

$$= 60\% \text{ of } 90 = \frac{90 \times 60}{100} = 54$$

65. (b) $x^2 = y + z$
$\Rightarrow x^2 + x = x + y + z$
$\Rightarrow x(x + 1) = x + y + z$ ....(i)
Similarly,
$y(y + 1) = x + y + z$ ....(ii)
and, $z(z + 1) = x + y + z$ ...(iii)

$$\therefore \frac{1}{x+1} + \frac{1}{y+1} + \frac{1}{z+1}$$

$$= \frac{x}{x+y+z} + \frac{y}{x+y+z} + \frac{z}{x+y+z}$$

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

66. (b) $\dfrac{1}{(a+b)(b+c)} + \dfrac{1}{(a+c)(b+a)} + \dfrac{1}{(c+a)(c+b)}$

$$= \frac{c+a+b+c+a+b}{(a+b)(b+c)(c+a)}$$

$$= \frac{2(a+b+c)}{(a+b)(b+c)(c+a)}$$

$$= 0 \ [\because a+b+c = 0]$$

67. (a) $(1 - \sin^2\alpha)(1 - \cos^2\alpha)(1 + \cot^2\beta)(1 + \tan^2\beta)$
= $\cos^2\alpha \cdot \sin^2\alpha \cdot \text{cosec}^2\beta \sec^2\beta$
= $(\cos^2\alpha \cdot \text{cosec}^2\beta)(\sin^2\alpha \cdot \sec^2\beta)$
= $(\cos^2\alpha \cdot \sec^2\alpha)(\sin^2\alpha \cdot \text{cosec}^2\alpha) = 1$
    [$\alpha + \beta = 90° \Rightarrow \beta = 90° - \alpha$
     cosec β = cosec $(90° - \alpha)$
= secα ; sec β = sec $(90° - \alpha)$
= cosec α, $\sin\alpha \cdot$ cosecα
= $\cos\alpha \cdot \sec\alpha = 1$]

68. (a) $3\sin\theta + 5\cos\theta = 5$ ...(i)
$5\sin\theta - 3\cos\theta = x$ ...(ii)
On squaring and adding,
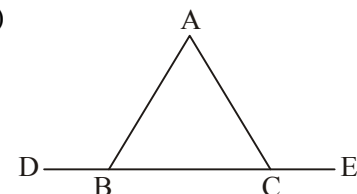$9\sin^2\theta + 25\cos^2\theta + 25\sin^2\theta + 9\cos^2\theta = 25 + x^2$
$\Rightarrow 9(\sin^2\theta + \cos^2\theta) + 25(\cos^2\theta + \sin^2\theta) = 25 + x^2$
$\Rightarrow 9 + 25 = 25 + x^2$
$\Rightarrow x^2 = 9$
$\Rightarrow x = \pm 3$

69. (c)

∠ABD = 120°
∴ ∠ABC = 180° – 120° = 60°
∠ACE = 105°
∴ ∠ACB = 180° – 105° = 75°

$\therefore \angle BAC = 180° - 60° - 75° = 45°$

70. (b)
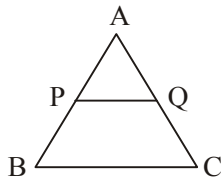
$\dfrac{AP}{PB} = \dfrac{AQ}{QC} = \dfrac{1}{2}$

$\Rightarrow \dfrac{QC}{AQ} = \dfrac{2}{1} \Rightarrow \dfrac{QC+AQ}{AQ} = \dfrac{3}{1}$

$\Rightarrow AC = 3AQ = 9$ cm

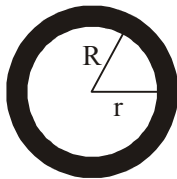71. (b) Let the radius of the circle be r cm.
Then, $2\pi r - 2r = 30$
$2r(\pi - 1) = 30$

$\Rightarrow 2r \times \dfrac{22-7}{7} = 30$

$\Rightarrow 2r \times 15 = 30 \times 7 \Rightarrow r = \dfrac{30 \times 7}{30}$

$\Rightarrow r = 7$ cm

72. (c)

Let the shaded portion be the circular path.
Let the inner radius be r metres.
$\therefore$ Outer radius R = (r + 5) metres.
According to the question,

$\dfrac{2\pi R}{2\pi r} = \dfrac{23}{22}$

$\Rightarrow \dfrac{R}{r} = \dfrac{23}{22}$

$\Rightarrow \dfrac{r+5}{r} = \dfrac{23}{22}$

$\Rightarrow 23r = 22r + 110$
$\Rightarrow r = 110$ metres
$\therefore$ Diameter = 2 × 110 = 220 metres

73. (b) $a^3 + \dfrac{1}{a^3} = 2$

$\Rightarrow a^6 + 1 = 2a^3$
$\Rightarrow a^6 - 2a^3 + 1 = 0$
$\Rightarrow (a^3 - 1)^2 = 0$
$\Rightarrow a^3 - 1 = 0$

$\Rightarrow a^3 = 1 \Rightarrow a = 1$

$\therefore \dfrac{a^2+1}{a} = 1 + 1 = 2$

74. (b) $m^3 + n^3 + 3mn$
$= m^3 + n^3 + 3mn(m + n)$
$\qquad\qquad\qquad [\because m + n = 1]$
$= (m + n)^3 = 1$

75. (d) $x^4 + \dfrac{1}{x^4} = 119$

$\Rightarrow \left(x^2 + \dfrac{1}{x^2}\right)^2 - 2 = 119$

$\Rightarrow \left(x^2 + \dfrac{1}{x^2}\right)^2 = 119 + 2 = 121$

$\Rightarrow \left(x^2 + \dfrac{1}{x^2}\right)^2 = 11^2$

$\Rightarrow x^2 + \dfrac{1}{x^2} = 11$

$\therefore \left(x - \dfrac{1}{x}\right)^2 + 2 = 11$

$\Rightarrow \left(x - \dfrac{1}{x}\right)^2 = 11 - 2 = 9 = 3^2$

$\Rightarrow x - \dfrac{1}{x} = 3$

76. (d) The Battle of Rajasthan is a battle (or series of battles) where the Hindu alliance defeated the Arab invaders in 738 CE and removed the Arab invaders and pillagers from the area east of the Indus River and protected whole India. The main Indian kings who contributed to the victory over the Arabs were the north Indian ruler Nagabhata of the Pratihara Dynasty and the south Indian Emperor Vikramaditya- II of the Chalukya dynasty in the 8th century.

77. (b) Garba is an Indian form of dance that originated in the Gujarat region. The name is derived from the Sanskrit term Garbha ("womb") and Deep ("a small earthenware lamp"). Many traditional garbas are performed around a central lit lamp or picture/statues of different avatars of Goddess Shakti. The circular and spiral figures of Garba have similarities to other spiritual dances, such as those of Sufi culture.

78. (a) The provincial part of the Government of India Act, 1935 basically followed the recommendations of the Simon Commission.

Simon Commission had proposed almost fully responsible government in the provinces. Under the 1935 Act, provincial dyarchy was abolished; i.e. all provincial portfolios were to be placed in charge of ministers enjoying the support of the provincial legislatures.   অ্যাচিভার্স

79. (d) A mushroom rock, also called rock pedestal or a pedestal rock, is a naturally occurring rock whose shape, as its name implies, strikingly resembles a mushroom. Usually found in desert areas, these rocks are formed over thousands of years when wind erosion of an isolated rocky outcrop progresses at a different rate at its bottom to that at its top.

80. (b) India's first-ever Night Sky Sanctuary is being set up by Council of Scientific & Industrial Research under Union Ministry of Science & Technology, in Ladakh's Hanle.
The proposed Dark Sky Reserve will be located at Hanle as a part of Changthang Wildlife Sanctuary. It will boost Astro-tourism in India and will be one of the world's highest-located sites for optical, infra-red, and gamma-ray telescopes.

81. (a) The Gadgil formula was evolved in 1969 for determining the allocation of central assistance for state plans in India. It was adopted for distribution of plan assistance during Fourth and Fifth Five Year Plans. It was named after the then deputy chairman of the Planning Commission Dr. D R Gadgil.   অ্যাচিভার্স

82. (c) The Kushan king Kanishka , moved the capital from Pushkalavati to Purushapura (Peshawar) in the 2nd century AD. Following this move by the Kushans, Peshawar became a great center of Buddhist learning.

83. (c) Under the Indian legal system, jurisdiction to issue 'prerogative writs' is given to the Supreme Court, and to the High Courts of Judicature of all Indian states. Parts of the law relating to writs are set forth in the Constitution of India. The Supreme Court, the highest in the country, may issue writs under Article 32 of the Constitution for enforcement of Fundamental Rights and under Articles 139 for enforcement of rights other than Fundamental Rights, while High Courts, the superior courts of the States, may issue writs under Articles 226. The Constitution broadly provides for five kinds of "prerogative" writs: habeas corpus, certiorari, mandamus, quo warranto and prohibition.

84. (c) The circumference of the earth at the equator is 24,901.55 miles (40,075.16 kilometers). But, if we measure the earth through the poles the circumference is a bit shorter - 24,859.82 miles (40,008 km). Thus, the earth is a tad wider than it is tall, giving it a slight bulge at the equator. This shape is known as an ellipsoid or more properly, geoid (earth-like).   অ্যাচিভার্স

85. (b) Pulakesin II (610–642 AD) was the most famous ruler of the Chalukya dynasty. In his reign the Chalukyas of Badami saw their kingdom extend over most of the Deccan.

86. (d) Qatar Energy announced a 27-year natural gas supply deal with China. It is the longest such gas agreement signed till date.
The state energy company will send four million tonnes of liquefied natural gas annually from its new North Field East project to China Petroleum and Chemical Corporation (Sinopec).

87. (d) Scintillation or twinkling is generic terms for variations in apparent brightness or position of a distant luminous object viewed through a medium. If the object lies outside the Earth's atmosphere, as in the case of stars and planets, the phenomenon is termed astronomical scintillation; within the atmosphere, the phenomenon is termed terrestrial scintillation. As one of the three principal factors governing astronomical seeing, atmospheric scintillation is defined as variations in illuminance only. Scintillation does not cause images of planets to flicker. Most scintillation effects are caused by anomalous refraction caused by small-scale fluctuations in air density usually related to temperature gradients.   অ্যাচিভার্স

88. (d) Right to equality is one of the six fundamental rights recognized by the constitution of India. It includes equality before law, prohibition of discrimination on grounds of religion, race, caste, sex or place of birth, and equality of opportunity in matters of employment, abolition of untouchability and abolition of titles.

89. (b) Union External Affairs Minister Dr. S Jaishankar attended the pre-launch celebration of International Year of Millets (IYM) 2023. In 2018, India proposed to the United Nation to declare 2023 as the International Year of Millets. It was approved by the Food and Agriculture Organisation (FAO) in 2018.

90. (b) The frequency of severe cyclonic storms is maximum for Andhra Pradesh while that of

cyclone is maximum for Orissa. Considering west coast only, Gujarat is most vulnerable. The average annual frequency of tropical cyclones in the north Indian Ocean (Bay of Bengal and Arabian Sea) is about 5 (about 5-6% of the Global annual average) and about 80 cyclones form around the globe in a year. The frequency is more in the Bay of Bengal than in the Arabian Sea, the ratio being 4:1.

91. (a) A balloon is an inflatable flexible bag filled with a gas, such as helium, hydrogen, nitrous oxide, oxygen, or air. Modern balloons can be made from materials such as rubber, latex, polychloroprene, or a nylon fabric, while some early balloons were made of dried animal bladders, such as the pig bladder. Some balloons are used for decorative purposes, while others are used for practical purposes such as meteorology, medical treatment, military defense, or transportation. A balloon's properties, including its low density and low cost, have led to a wide range of applications. Because of the non combustible property of the helium gas it is widely used in weather balloons rather than hydrogen gas which is highly combustible. অ্যাচিভার্স

92. (c) The price of a good is also known as the Average Revenue of the firm. Average Revenue (AR) or Price and Marginal Revenue (MR) are identical. When the former is constant, the latter is also constant. Moreover, the Average Revenue curve of a firm is the same as the individual demand curve. Hence, the competitive demand curve is a horizontal straight line parallel to the OX axis.
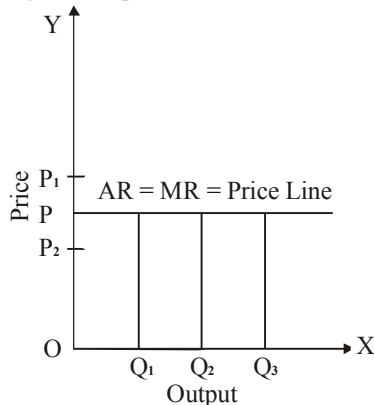
93. (b) Padma Shri Khel Ratna and Arjuna Awardee Deepa Malik has been named Ni-Kshay Mitra and national ambassador for TB Mukt Bharat Campaign. Deepa Malik is India's First Woman Paralympic Medalist and President of the Paralympic Committee of India. Ni-Kshay Mitra is an initiative launched by the President of India Droupadi Murmu which seeks to provide aid to TB afflicted patients on three levels of nutritional, additional diagnostic, and vocational support. অ্যাচিভার্স

94. (b) Formic acid is the simplest carboxylic acid. Its chemical formula is $HCOOH$ or HCO_2H. It is an important intermediate in chemical synthesis and occurs naturally, most notably in the venom of bee and ant stings. Citric acid is a weak organic acid. It is a natural preservative/conservative and is also used to add an acidic, or sour, taste to foods and soft drinks. Citric acid exists in greater than trace amounts in a variety of fruits and vegetables, most notably citrus fruits. Lemons and limes have particularly high concentrations of the acid; it can constitute as much as 8% of the dry weight of these fruits. Tartaric acid is a white crystalline diprotic organic acid. It occurs naturally in many plants, particularly grapes, bananas, and tamarinds, is commonly combined with baking soda to function as a an antioxidant.

95. (c) The Cripps mission was an attempt in late March 1942 by the British government to secure full Indian cooperation and support for their efforts in World War II. The mission was headed by Sir Stafford Cripps, a senior left-wing politician and government minister in the War Cabinet of Prime Minister Winston Churchill. অ্যাচিভার্স

96. (c) The Vice President does not have to be formally impeached, unlike the President of India. The Constitution states that the Vice President can be removed by a resolution of the Rajya Sabha passed by an effective majority (more than 50% of effective membership (total membership-vacancies)) and agreed to by a simple majority (50% of voting members) of the Lok Sabha (Article 67(b)).

97. (b) Hypothalamus is a portion of the brain that contains a number of small nuclei with a variety of functions. One of the most important functions of the hypothalamus is to link the nervous system to the endocrine system via the pituitary gland (hypophysis). The hypothalamus is responsible for certain metabolic processes and other activities of the

autonomic nervous system. It synthesizes and secretes certain neurohormones, often called hypothalamic-releasing hormones, and these in turn stimulate or inhibit the secretion of pituitary hormones. The hypothalamus controls body temperature, hunger, thirst, fatigue, sleep, and circadian cycles. *অ্যাচিভার্স*

98. (d) Indian Air Force conducted the Annual Joint Humanitarian Assistance and Disaster Relief (HADR) Exercise 'Samanvay 2022' at Air Force Station Agra. With this exercise, the Indian Air Force aims to assess the efficacy of institutional disaster management structures and contingency measures. The exercise witnessed participation by representatives from the ASEAN countries.

99. (b) Marwar is a region of southwestern Rajasthan state in western India. It lies partly in the Thar Desert which is the driest region of India. It includes the present-day districts of Barmer, Jalore, Lakshman Nagar, Jodhpur, Nagaur, and Pali. This desert tract, nicknamed Marwar or Marusthali – the Land of Death, lives up to its name with its scorching heat, thorny cactus and scrub, and scanty water. *অ্যাচিভার্স*

100. (d) Sarojini Naidu was the first woman to become the governor of a state in India after India's independence. She held the post of Governor of Uttar Pradesh from 15 August 1947 to 2 March 1949. Her daughter Padmaja Naidu was the second woman to be the Governor of any Indian state when she held the position of West Bengal Governor during 1956-1967.

———★★★———