



பெரிய எண்ணிக்கை

பகுதி - II

4000 பகுதி - I

- | | | | |
|----|--|-----|--|
| 1 | $\sqrt{16} < \sqrt{20} < \sqrt{25}$ ——— 1
$4 < \sqrt{20} < 5$ ——— 1 | 10. | $12x^2y^2$ ——— 2 |
| 3 | $a^x = 3$ ——— 2 | 11. | $2\pi r$
$\frac{2 \times 22}{7} \times 7$ ——— 1 |
| 4 | $\frac{8}{100} \times 50,000$ ——— 1
4000 ——— 1 | 12. | $a = 75 + 30 = 105$ ——— 1
$b = 105 + 40 = 145$ ——— 1 |
| 2 | $\frac{2a-5+a}{6b}$ ——— 1
$\frac{3a-5}{6b}$ ——— 1 | 13. | $\frac{1}{4} \times \frac{22}{7} \times 14 \times 14$ ——— 1
154 cm ² ——— 1 |
| 5 | $2x + 50 = 180$ ——— 1
$2x = 130$ ——— 1
$x = 65$ ——— 1 | 14. | $2x^2 - 10x + x - 5$ ——— 1
$(2x-5)(x+1)$ ——— 1 |
| 6 | 40×12 ——— 1
480 cm ³ ——— 1 | 15. | $x < -3$ ——— 1 |
| 7 | $x(x-3) = 0$ ——— 1
$x = 0$ or $x = 3$ ——— 1 | 16. | $\triangle ABC$ ல் $h = 18$ cm ——— 1
$\frac{1}{2} \times 9 \times 18 = 18$ ——— or 1
$18x = 4$ cm ——— 1 |
| 8 | $DB = DC$ ——— 1
$DB = DC$ [சமனம்] ——— 1 | 17. | $5 + 8d = 21$ ——— 1
$d = 2$ ——— 1 |
| 9. | $m = \frac{4-2}{3-1}$ ——— 1
$= 1$ ——— 1 | 18. | $3 = 3x + c$ ——— 1
$c = -3$ ——— 1 |

19 $\frac{3}{6} \times \frac{3}{6} = \frac{9}{36} \left| \frac{1}{4} \right|$ 20 open $\boxed{+2}$

21 Area for 2nd = 240 m² - 122
 Area for 1st = 160 m² or $\frac{216 \times 2 \times 22 \times r + 2r = 202$
 Area for 2nd = 80 m² or $\frac{202r}{35} = 202$
 $\frac{8}{2}$ or $r = 35 \text{ cm}$

4 m² - 1 24. (0, -2) - 2
 Block for 2 m² - 1

23 $3x + 3y = 12$ - 1 25 25 m² - 5 - 1
 $x + y = 4$ - 1 26 m² - 7 - 1

Part B

01 (i) $\frac{7}{9}$ - 1 02 (i) 5. 25 m² - 1

(ii) $\frac{7}{4} \times \frac{3}{14}$ - 1 10 $\frac{1}{2} (19 + 14) \times 12$ - 1
 $\frac{1}{6}$ - 1 198 m² - 1

(iii) $\frac{825}{15} = 55$ - 1 (iii) $\frac{1}{4} \times \frac{22}{7} \times 14 \times 14$ - 1
 15 1/2 m² - 1

iv $\frac{7}{9} - \frac{1}{6}$ - 1 (iv) DE m = $\frac{1}{4} \times 2 \times \frac{22}{7} \times 14$ - 1
 $\frac{11}{18}$ - 1 22 m - 1

v) $\frac{11}{18} \rightarrow 55$ - 1 21 m = 12 + 19 + 13 + 22 + 14 - 1
 = 80 m - 1

Area of circle $\frac{55 \times 18}{11}$ - 1 (v) $r_h = \frac{15 \frac{1}{2}}{14}$ - 1
 90 (Area) - 1 = 11 - 1

HLB - 1

03/1) 120 ————— 2

(ii) 60 → 8
 360 → 8x6 ——— 1
 48 ——— 1

$\frac{360 \times 8}{60}$ ——— 1
 48 Evi ——— 1

(iii) 60 grams — 4 Cui

60 grams 60 min 30° — 1
 $[\frac{4}{49} \times 360]$ ——— 1

60 min 2000 — 60° — 1
 2000, 60 min 2000 — 1

04(a) 750,000 - 500,000
 250,000 ————— 1

$\frac{15}{100} \times 250,000$ ——— 1
 37,500 ————— 1

(b) $\frac{100}{130} \times 9600$ ——— 2
 7384.6 ————— 1

1000x4 ——— 1
 4000 ————— 1

d. $\frac{4000 \times 100}{90,000}$ ——— 1
 5% ————— 1

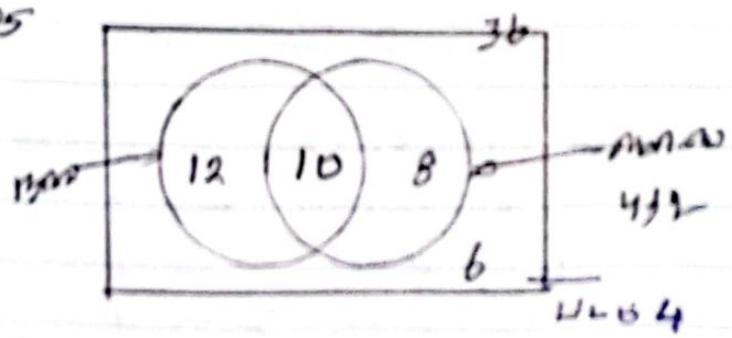
10

(iv) 10 min → $\frac{90}{360} \times 48$
 12 Cui ——— 1

60 min → $\frac{120}{360} \times 48$
 16 Cui ——— 1

60 min 16-12
 4 Cui ——— 1

05



(i) 10 Cui ——— 2

10 (ii) $\frac{8}{36} \times 100$ ——— 1
 22.22% ——— 1

(iii) $\frac{30}{36} \div \frac{5}{6}$ ——— 2

Ex 2c - II

01 $\log_5 5 + 1$
 $= 1 + 1$
 $= 2$ — ①

(ii) $\log \left[\frac{15}{8} \times \frac{4}{3} \right]$ — 1

$\log \left[\frac{15 \times 16}{8 \times 3} \right]$ — 1

$\log 10$
 1 — 1

(iv) $\log x = \frac{1}{2} \log 357 + 2 \log 895$ — 1
 $= \frac{1}{2} \times 0.9221 + 2 \times 0.9519$ — 2
 $= 0.4610 + 1.9036$ — 1
 $= 2.3646$ — 1

$x = \text{antilog}(2.3646)$
 $= 2315$ — 1

02. a(i) $y = 6$ — 1

(ii) 21034 — 3

b(i) $x = 0$ — 1

(ii) $2.00 - 7$ — 1

(iii) $(0, 7)$ — 1

(iv) $-2.6 < x < 2.6$ — 2

(v) $y = 5 - 2x^2$ — 1

03 $120 \times 500 = 60,000$ — 1

अ. म. म. $\frac{30}{100} \times 60,000$
 $18,000$ — 2

म. म. म. $= 60,000 + 18,000$
 $+ 12,000$
 $= 90,000$ — 1

अ. म. म. $= \frac{40}{100} \times 90,000$
 $= 36,000$ — 2

म. म. म. $= 90,000 + 36,000$
 $= 126,000$ — 1

1 म. म. म. $= \frac{126,000}{500}$
 $= 252$ — 2

30 252 7 250 — 1

(i) $x - 3$ — 1

(ii) $x + 5$ — 1

(iii) $(x + 5)(x - 3) = 105$ — 1

$x^2 + 2x - 15 = 105$ — 1

$x^2 + 2x - 120 = 0$ — 1

(iv) $x^2 + 2x - 120 = 0$

$(x + 12)(x - 10) = 0$ — 1

$x = -12$ or $x = 10$ — 1

$x > 0$ अतः $x = 10$ — 1

रश्मि 15 cm — 1

शुभ्र 7 cm — 1

$$05) a, b = \frac{a^2}{c^2} - 2$$

$$1b) (3a+4)(a-1) = 2$$

$$1c) x+y = 200 \quad -1$$

$$10y-5x = 320 \quad -1$$

$$y = 88 \quad -2$$

$$x = 112 \quad -1$$

$$\left. \begin{array}{l} 35 \text{ Brunnstein} - 112 \\ 310 \text{ " } - 88 \end{array} \right\} -1$$

$$(iv) T_n = a + (n-1)d$$

$$4.6 = 4 + (n-1)3 -1$$

$$3n = 45 \quad -1$$

$$n = 15 \quad -1$$

$$(v) S_n = \frac{n}{2} [2a + (n-1)d]$$

$$= \frac{20}{2} [2 \times 4 + (20-1)3]$$

$$= 10 [8 + 57]$$

$$= 10 \times 65 \quad -1$$

$$= 650 \quad -1$$

$$06) \text{ sum of } \angle C = \textcircled{5}$$

$$PA - 1 \quad R \hat{T} Q - 1$$

$$TQ - 1 \quad SQ - 1$$

$$QY - 1$$

$$1ii) RT = 61 \pm 1m - 1$$

$$SU = 23 \pm 1m - 1$$

$$1iii) Q \hat{T} P = 69 \pm 1 - 1$$

$$1iv) y \text{ mm} - 1$$

$$\angle B \hat{C} D = 30 - 1$$

$$07) m, \text{ au} - \textcircled{1}$$

$$F \text{ la} - \textcircled{2}$$

$$\Sigma F(x) = \frac{1215}{30} - \textcircled{1}$$

$$\text{am} = \frac{\Sigma F \cdot d}{\Sigma F} \quad - \textcircled{1}$$

$$= \frac{1215}{30} = 41 \quad - \textcircled{2}$$

and volume

$$= 300 \times 4 \times 30$$

$$= 360,000 - 3$$

$$08) 4, 7, 10, 13 \quad -1$$

$$1ii) \text{ sum of } \angle B \hat{C} D - 1$$

$$1iv) T_n = a + (n-1)d$$

$$T_{10} = 4 + 10 \times 3 - 1$$

$$= 34 \quad -1$$

$$08) \Delta \text{ sum} - \textcircled{3}$$

$$1ii) \quad - \textcircled{2}$$

$$1iv) \text{ sum of } \angle B \hat{C} D = \Delta \quad - \textcircled{2}$$

$$1iii) \quad - \textcircled{2}$$

$$1v) \quad - \textcircled{1}$$

10 (i) $\widehat{C}OD = 40^\circ$ — 1
 m.b. BM N. 620 ~~...~~ — 1

(ii) $\widehat{O}CD = \frac{180 - 40}{2}$ — 1
 $= 70^\circ$ — 1

~~...~~

(iii) $\widehat{C}AD = 20$ ~~...~~
 $\widehat{C}AO = 20$ [~~...~~]
 $\widehat{C}AO = \widehat{OCA}$ [$OA = OC$] — 1
 $\therefore \widehat{C}AD = \widehat{OCA}$ [$OA = OC$] — 1
 $OC \parallel AD$ [\angle ~~...~~] — 1

(iv) $\widehat{OCA} = 20^\circ$
 $\widehat{OCB} = 70^\circ$ [$90 - 20$] — 1
 $\widehat{OCB} = \widehat{OBC}$ [$OC = OB$] — 1
 $\therefore \widehat{COB} = 40^\circ$ [$\therefore 180 - 140$] — 12
 $\widehat{BOC} = 40$ [$m \angle$] — 1
 $\therefore \widehat{COB} = \widehat{DOC}$ — 1
omb. OC ~~...~~

(11) (i) $2\pi r h + \pi r^2$ — 1
 $\frac{2 \times 22}{7} \times 3 \times 8 + \frac{22}{7} \times 3^2$ — 1
 $\frac{22}{7} \times 3 \times 21$
 198 cm^2 — 1

(ii) $\pi r^2 h + \frac{1}{3} \pi r^2 h'$
 $\frac{22}{7} \times 3^2 [8 + 4]$
 $\frac{22}{7} \times 9 \times 28$ — 1

$\pi r^2 h = \frac{22}{7} \times 9 \times 8$
 $= 1584$ — 1

$\frac{1}{3} \pi r^2 h' = \frac{1}{3} \times \frac{22}{7} \times 9 \times 4$ — 1
 $= \frac{264}{7}$ — 1

omb. $= \frac{1584}{7} = 264$ — 1

$66 - \frac{264}{7} = \pi r^2 h''$ — 2

$\frac{462 - 264}{7} = \frac{22}{7} \times 9 \cdot h''$

$\frac{198}{22 \times 9} = h''$ — 1

$h'' = 1 \text{ cm}$ — 1

omb. ~~...~~ 5 cm.

(ii) $\triangle ABE, BCD$ — 2

(i) $\triangle ABD \sim \triangle AEB$ $\triangle AEB \sim \triangle AEF$ — 1
 []

$\triangle ABD - \triangle AEF = \triangle AEB - \triangle AEF$ — 1

$\therefore \triangle AEF = \triangle BDF$ — 1

(ii) omb. $U_1 = \frac{1}{2} (AB + ED) \cdot h$ — 1
 $AB = ED$

$= \frac{1}{2} (3ED) \cdot h$ — 1

$U_1 = \frac{1}{2} AB \cdot h$ — 1

$\frac{U_1}{U_2} = \frac{3ED \cdot \frac{1}{2}}{ED \cdot h} = \frac{3}{4}$ — 1