Gr – 10 – 2018. 2nd Term

Maths – Par I. (A)

1. 60/= – (2) 4

2. 80° – (2) 4 $\frac{\theta}{360} \times \frac{22}{7} r^2 = 308$ – (1) 4

3. $a(x-2y) - 3(x-2y)$

$(x-2y)(a-3)$ – (2) 4

4. $(100+3)(100-3)$

9991 – (2) 4

5. $\frac{360}{36}$ – 10 பக்கங்கள். $(180-144) = 36°$ – (2) 4

6. i 9 ii $(x-3)^2$ – (2) 4

7. $\frac{3}{b} = \frac{1}{2}$ – (2) 4

8. $\frac{2000}{3600} \times 6$ – (1)

$= 120m$. – (2) 4

9. $2^n = 2^4 = 16$ – (2) 4

10. i $A\hat{C}D = (180-x)°$ ii மிணைகரப்புக் கோணச் சோடி (2) 4

11. $3x \geq 6$

$x \geq 2$

$\{2, 3, 4, 5, 6, \ldots\}$ – (2) 4

12. $m = \frac{y}{x} = \frac{2}{3}$ $y = mx$

$y = \frac{2}{3}x$ – (2) 4

13. $60 - 34 = 26cm^2$ – (1) 4

$\frac{4x}{2} = 26$ $x = \frac{2 \times 26}{4} = 13cm$. – (2) 4

14. $\left(\frac{17}{8} - \frac{1}{2}\right) \times \frac{1}{13}$

$\frac{13}{8} \times \frac{1}{13} = \frac{1}{8}$ – (2) 4

15. (i) ×
(ii) ×
(iii) ✓ – (2) 4

16. $5n = 95$

$n = 19$ ஆம் உறுப்பு – (2) 4

17. $12 + 29 + 40 = 81cm$. – (2) 4

18. $x = 40°$ $y = 70°$ – (2) 4

19. $\frac{120}{b} = 20cm$. – (2) 4

20. i 030° ii 210° – (2) 4

21. 8 : 1 – (2) 4

22. $120 + 2x = 220$

$2x = 100$

$x = 50$ – (2) 4

23. $B\hat{C}D = 100°$ – (2) 4

24. $\frac{1}{2} \pi r^2$

$\frac{38.5}{2} = 19.25 cm^2$ (2) 4

25. 5 – (2) 4

Maths Part I

B

(01) I $\frac{4}{5} \times \frac{5}{8} = \frac{1}{2}$

II $\frac{4}{5} - \frac{1}{2} = \frac{3}{10}$

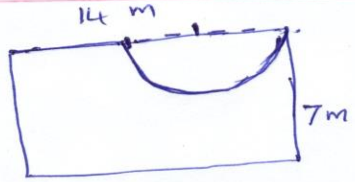
$\frac{5}{10} - \frac{3}{10} = \frac{2}{10}$

$9000 \times 10 = 90000$ வாக்குகள்

III $90000 \times \frac{4}{5} = 72000$ வாக்குகள்

IV $90000 \times \frac{5}{10} = 45000$ வாக்கு

(2) I



II 3.5 cm

III 19.25 cm^2

IV $98 - 19.25\ cm^2$
$= 78.75\ cm^2$

V 78.75×6000/=
472500/=

(3) I 12 பேர்

II 40 பேர்

b) ~~240°~~ 135°

c) இட்லி.

(4) I $\frac{92 \times 2675}{100}$
= 2461/=

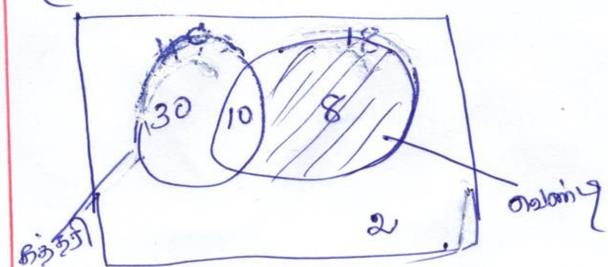
II 2675 − 2461
= 214/=

III $\frac{95 \times 2675}{100}$
2541/25

b) I $\frac{~~7200~~}{3}$ = 2400/=

II $\frac{800 \times 100}{10000}$
8%

5)
(a)



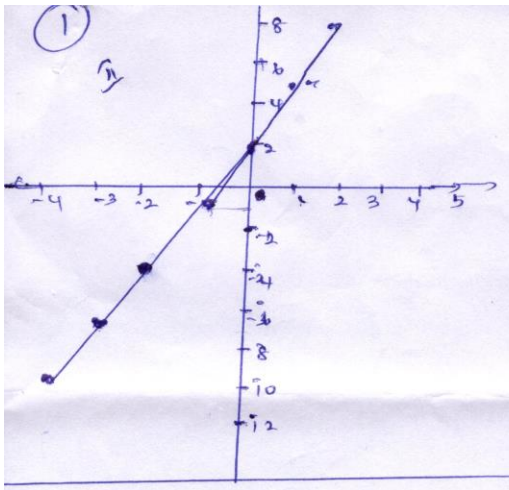
b) I - 10 பேர்

II 8

III 2

IV 38

(1) ii)



iii) $-7, -1$

iii) 3

iv) 2

v) $-19/3$

Part II A

(5) i) 12 : 20 : 15

ii) $12000 + 20000 + 15000 = 47000$ /=

iii) A - 12000/=

B - 20000/=

C - 15000/=

(02) i) $6500 \times 12 = 78000$/=

ii) $\frac{12}{100} \times \frac{40000}{4} = 1200$/=

iii) 7800/=

iv) $78000 - 12600$

$= 65400$/=

(06) a) $\frac{40}{5} = 8$ [illegible]

b) ප්‍රවාහනය = 480 km

වේගය = $\frac{480}{8} = 60$ km/h

(03) i) 4

ii) -3

iii) $4n - 7$

iv) 81

v) 10

(04) i) $30a^3b^2$

ii) $(x+2)(x-1)^2$

iii) (i) $\frac{2}{(x-1)^2} - \frac{1}{(x+2)(x-1)}$

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

$= \frac{2x+4-x+1}{(x-1)^2(x+2)}$

$= \frac{x+5}{(x-1)^2(x+2)}$.

(ii) $\frac{4}{(2-a)(2+a)} - \frac{a+2}{(a-2)}$

$= \frac{4}{(2-a)(2+a)} + \frac{a+2}{(2-a)}$

$= \frac{4 + (a+2)(a+2)}{(2-a)(2+a)}$

$= \frac{4 + a^2+4a+4}{(2-a)(2+a)}$

$= \frac{a^2+4a+8}{(2-a)(2+a)}$

Part II (B)

(07)

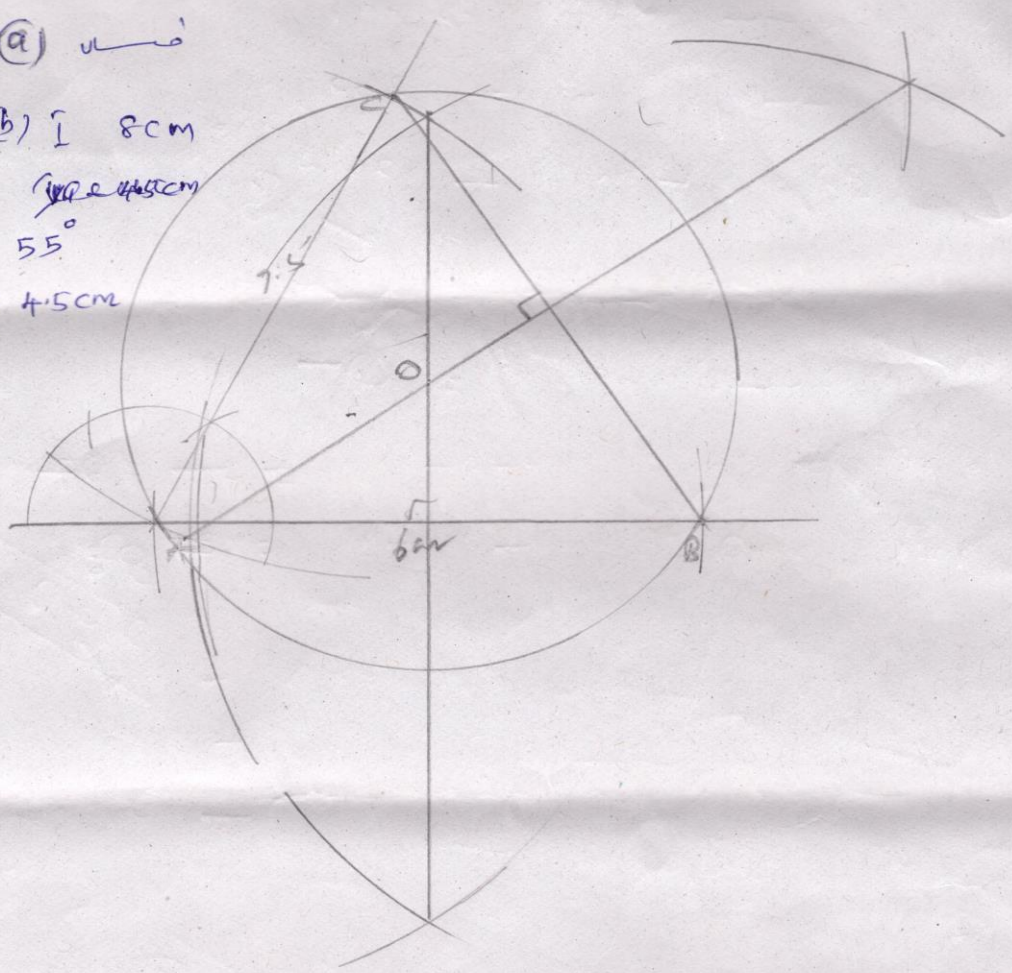
(a) نصف

(b) I 8cm

~~II 4.5cm~~

III 55°

IV 4.5cm



08 (a)

i $D\hat{C}E = 3x$

ii $A\hat{C}D \cong 2x$

iii $9x = 180^\circ$

$x = 20^\circ$

(b) i $C\hat{E}B = y$

$E\hat{B}C = x$

ii $\triangle BEC$

$C\hat{E}B + E\hat{B}C + E\hat{C}B$

$y + x + z$

$x + y + z$

09

x	F	Fx
10	17	170
30	08	240
50	32	1600
70	24	1680
90	19	1710
	100	5400

ii $\frac{5400}{100} = 54$

iii $40 - 60$

iv $\frac{43}{100} \times 100$

$= 43\%$

10 i $\triangle ABO$, $\triangle ACO$ எண்ணுக

(a) $AB = AC$ (சமன)

$BO = OC$ (சமன)

$\angle ABO = \angle ACO$

$\therefore \triangle ABO \equiv \triangle ACO$ (ப. ப ப)

$\therefore B\hat{A}O = C\hat{A}O$ (ஒத்தகோணங்கள்)

(b) $3x = 69$

$x = 23$

11 $2(3x + 5) = 22$

(a) $6x + 10 = 22$

$6x = 12$

$x = 2$

(b) $x^2 + y^2 = (x - y)^2 + 2xy$

$= 3^2 + 2 \times 2$

$= 9 + 4$

$= 13$

(c) நீளம் x எனல்

$x(x + 3) = 180$

$x^2 + 3x - 180 = 0$

$(x + 15)(x - 12) = 0$

$x = -15$ or $x = 12$.

அகலம் = 12 cm

நீளம் = 15 cm

12 $h = 12$ cm

ii $\frac{1}{2} \times 10 \times 12$

$60 cm^2$

iii $120 + 36 \times 25$

$120 + 900$

$1020 cm^2$

iv 60×25

$= 1500 cm^3$