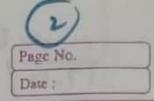


(T-4) Solution



(T-4) Solution

Page No.

$$= \frac{\sqrt{3}}{8} \left(\frac{35 \ln(80)(36(30))}{8(100)} + \frac{5 \ln(80)}{8(0)} - \frac{5 \ln(80)}{8(0)} \right)$$

$$= \frac{\sqrt{3}}{8} \left(\frac{5 \ln(180-80)}{8(100)} + \frac{\sqrt{3}}{2} - \frac{5 \ln(80)}{2} \right)$$

$$= \frac{\sqrt{3}}{8} \left(\frac{5 \ln(180-80)}{8(100)} + \frac{\sqrt{3}}{2} - \frac{5 \ln(80)}{2} \right)$$

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$$= \frac{\sqrt{3}}{8} \left(\frac{5 \ln(180-80)}{8(100)} + \frac{5 \ln(80)}{8(100)} + \frac{5 \ln(80)}{8(100)} \right)$$

$$= \frac{10}{8} \left(\frac{5 \ln(180-80)}{8(100)} + \frac{5 \ln(180-80)}{8(100)}$$

ONS + 1/4 ten(20) ten(40) ten(60) ten(80)

- V3. ten (do) ten (40) ten (80)

= V3 Sin (20) Sin (40) Sin (80)

(08/20) (08/40) (08/80)

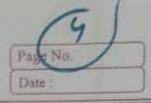
MUTHON & divide by 2

= 53 (2 Sin (20) Sin (40)) Sin (80) (2 (08 (20) (08 (40)) . (08 (80))

= 55 [(03(-20) - (03(60)) 59n(80) [(03(60) + (03(-20)) cos (80)

= 15 [ca(20) - 1/2] sin (80) [1/2 + (08/20)] (08/80)

(T-4) Selutions Page No



$$= \sqrt{5} \left(\frac{\sin(80)}{\cos(80)} + \frac{1}{2} \sin(80) \right)$$

$$= \sqrt{5} \cdot \frac{1}{2} \left(\frac{\cos(80)}{\cos(20)} + \frac{1}{2} \cos(80) \cdot \frac{\cos(20)}{\cos(20)} \right)$$

$$= \sqrt{5} \cdot \frac{1}{2} \left(\frac{\cos(80)}{\cos(80)} + \frac{1}{2} \cos(80) \cdot \frac{\cos(80)}{\cos(80)} \right)$$

$$= \sqrt{5} \cdot \left(\frac{\sin(100)}{\cos(100)} + \frac{1}{2} \sin(80) \right)$$

$$= \sqrt{5} \cdot \left(\frac{\sin(180 - 80)}{\cos(180 - 80)} + \frac{1}{2} - \frac{\sin(80)}{\cos(180)} \right)$$

$$= \sqrt{5} \cdot \left(\frac{\sin(80)}{\cos(180 - 80)} + \frac{1}{2} - \frac{1}{2} \sin(80) \right)$$

$$= \sqrt{5} \cdot \left(\frac{\cos(80)}{\cos(180 - 80)} + \frac{1}{2} \right)$$

$$= \sqrt{5} \cdot \frac{\sin(80)}{\cos(180 - 80)} + \frac{1}{2} \right)$$

$$= \sqrt{5} \cdot \frac{\sin(80)}{\cos(180 - 80)} + \frac{1}{2} \right)$$

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$$= \sqrt{5} \cdot \frac{\sin(80)}{\cos(180 - 80)} + \frac{1}{2} \right)$$

$$= \sqrt{5} \cdot \frac{\sin(80)}{\cos(180 - 80)} + \frac{1}{2} \cdot \frac{\sin(180)}{\cos(180 - 80)} + \frac{1}{2} \cdot \frac{\sin(180)}{\cos(180 - 80)} + \frac{1}{2} \cdot \frac{\sin(180)}{\cos(180 - 80)} + \frac{1}$$

+ Do yoursey (Same as anno. 5)

(T-4) Solution

Page No.

Date:

$$O_{M} \frac{7}{7} + \frac{1}{2} (cos(12)) (cos(48)) (cos(72))$$

$$= \frac{2}{3} (cos(12)) (cos(48)) (cos(72))$$

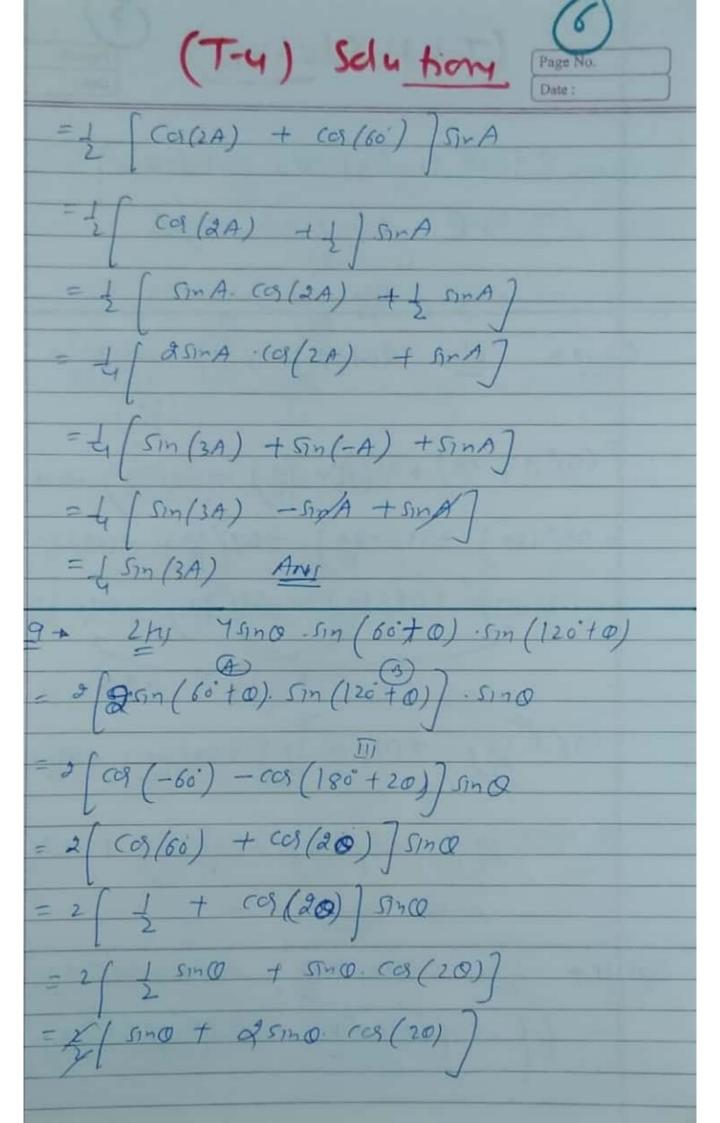
$$= \frac{2}{3} (cos(72)) + \frac{2}{3} (cos(72)) (cos(36))$$

$$= \frac{2}{3} (cos(72)) + \frac{2}{3} (cos(36)) + \frac{2}{3} (cos(36))$$

$$= \frac{2}{3} (cos(72)) + \frac{2}{3} (cos(36)) + \frac{2}{3} (cos(36))$$

$$= \frac{2}{3} (cos(72)) + \frac{2}{3} (cos(36)) + \frac{2}{3} (cos(36))$$

$$= \frac{2}{3} (cos(36)) + \frac{2}{3} (c$$



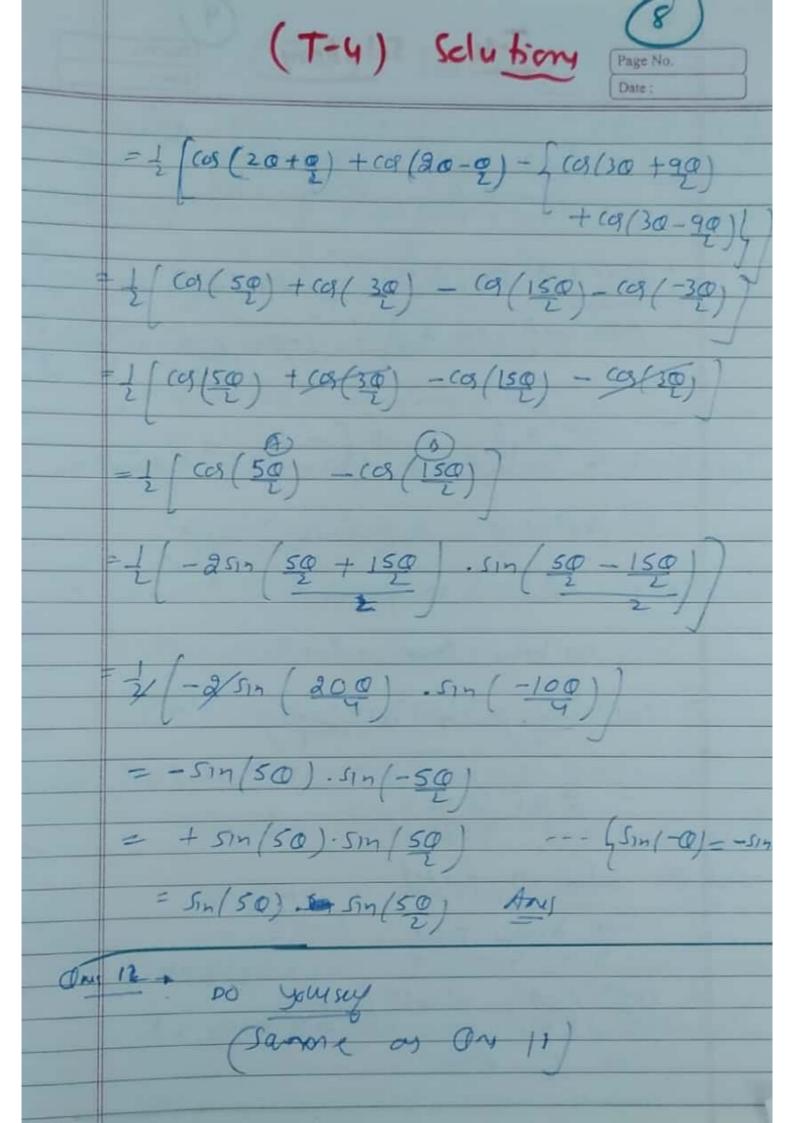
(T-4) Solutions

Page No. Date:

$$= \frac{5 \ln (0 + 5 \ln (30) + 5 \ln (-0))}{+ 5 \ln (50)} = \frac{5 \ln (30) + 5 \ln (-0)}{+ 5 \ln (30)} = \frac{5 \ln (30) + 5 \ln (50)}{+ 5 \ln (30)} = \frac{5 \ln (30) + 5 \ln (30)}{+ 5 \ln (30)} = \frac{5 \ln (30) + 5 \ln (30)}{+ 5 \ln (30)} + \frac{5 \ln (30) + 5 \ln (30)}{+ 5 \ln (30)} = \frac{5 \ln (30) + 5 \ln (30) + 5 \ln (30)}{+ 5 \ln (30)} + \frac{5 \ln (30) + 5 \ln (30)}{+ 5 \ln (30)} + \frac{5 \ln (30) + 5 \ln (30)}{+ 5 \ln (30)} = \frac{5 \ln (30) + 5 \ln (30) + 5 \ln (30)}{+ 5 \ln (30)} + \frac{5 \ln (30) +$$

ONS 11 + LHY (01/20) (010 - (01/30) (01/90)

1 (208(20)00 - 208(30) (01/90



T-4 Solution

Page No.

ONIS 13 + (COSA + COB) + (SINA + SINB) 1 SINA-SINB) (COSA - COSB)

= \(\frac{2'\ca (A+B) \cos (A-13)}{2'\ca (A+B) \cos (A-13)} + \(\frac{2'\sin (A+B)}{2'\sin (A+B)} \cos (A-B) \\
\frac{2'\sin (A+B) \cos (A-13)}{2'\sin (A+B) \cos (A-B)} + \(\frac{2'\sin (A+B)}{2'\sin (A+B)} \)

= (cc+(A-B)) + (- co+(A-B)) n

= (ot"(A-B) + (-1)". (ot"(A-B)

ale I when n -> +ven

we know that (-1)"= 1

= (otn (A-B) + (otn (A-B)

- 2 (ot" (A-B)

(at I when n -rodd

me know that (-1) = -1

= (otn(A-B) - cotn(AB)

- O ANS

(T-4) Solukon

Page No.

Onu 14+ 91um (05(x-B) + (05(p-x) + (0/4-x)=-3 Carcapt singsing + cospicar + singsiny + carcag + 517 514 = -3 2cax cap + 25m x 5mb+ 2 cap cay + 25mb 5mV + 2 cay (ax + asiny sinx = -3 Laxab + 25m x5m B + 2capcay + 25m B sing + 2048 Cax + 2517 (cm x + 1+1+1=0 2 cax cap + 2singsing + 2 cap cay + 2sing sing + 204 y cax + 25my5md + (5m2 x + (d2x) + (SIn28+ (a28) + (SIn28 + (a28) = 0 1(a2x+(a2) +(a2) + 2(ax (a) + 2(a)(a)+ (a (caa) + (sin'x + sin'y + sin'V + 2sin 4 & B + 25mpsmy + asmasmy =0 (cax+(ap+cax) + (snx +snp +sn) =0 5: a2+b2+c2+29b+2bc+2cq= (a+b+c)24

(T-4) Selution

this is possible only when (ax+cap+ 80x- o and Sind + Sing + Siny=0 : 4 a2+b2=0 then a=0 and b=04 = (ax + cosp + cay = sin x + smp+smy=0 Provid