Problem1. (i) from equ): LTA(TO1) = 5LTO1) + \(\sigma_{M(s)} \left(\sigma_ ·· Lza1(za1)= 5(za1) ... 得證 ((i) De (10) (0) , De) (100) + & 9 200 (0) - 50 (20) (20) (20) (20) (20) $\nabla e^{\int a(e)^{2}} \sum_{\alpha} d_{M}^{RBI}(s) = \sum_{\alpha} (\nabla_{b} \chi_{B}(\alpha|s)) A^{RBI}(s, \alpha)$ Drignal = 5(20) = 5(201) + \(\frac{70}{5} \dagger \frac{70}{M(s)} \) \(\frac{70}{6} (a(s) \cdot \frac{70}{6} (s, a) \) : \(\frac{1}{2} \frac{1}{2} \left(\frac{1}{2} \right) + \left[\frac{1}{2} dm(s) \frac{1}{2} \left(\frac{1}{2} \right) \text{A}(s, a) \right]

 $\Rightarrow \nabla_{\theta} \mathcal{G}(\mathcal{R}_{\theta}) \Big|_{\theta = \theta_{1}} = \sum_{s} d_{M}^{2\theta_{1}}(s) \Big(\sum_{s} \nabla_{\theta} \mathcal{R}_{\theta}(a|s) \Big|_{\theta = \theta_{1}} \Big) A^{2\theta_{1}}(s,a)$

@ 7mm @ TO D ! To De Jan (To) (8=8) = Vo 5 (70) (8=8) # 13 3000

Snolders (9) (1) Since D(1)= min L(0,1), => 0 from to L(0,1)=0 3 0 = - (DO POE(A) 0=0E) + /.H (0-0E) = 0-0k= 1 H (Volop(6) | 0-6t) - 0 R/ 2) eg.(4): I(01): $\Rightarrow \mathcal{D}(\mathcal{N}) = -\left(\Delta \theta \mathsf{T} \theta \mathsf{F}(\theta) \middle| \theta = \theta \mathsf{F}\right) \cdot \frac{\mathcal{L}}{\mathsf{L}} \left(\Delta \theta \mathsf{T} \theta \mathsf{F}(\theta) \middle| \theta = \theta \mathsf{F}\right)$ + 2 [H] (BLOK(8) 0=06)] H [T] (DO LOK(8) 0=06) ->. 8 2) (DO OK(O) O-DE) (HT) (DO LOKIO) O-DE) (, DW)= == [(De(ex(0) | 0=0 F) x H x (De(ex(0) | 0=0 F)] - x S. (ii) Find > By Solvey &D(1) =0 可得 3/2 = 2/2 [DO FOK(O) | O=OK) ×D×(DOK(O) | O=OK) - P=O => X = 1 [(VALOK(B) | OCOK) X H X (VOK LOK(B) | OCOK)] (b) since (a) -0 = 0 = 0 + 1 × H ($\nabla \theta \left(\theta \xi(\theta) \middle| \theta \in \theta \xi \right)$

= 0+ + 9' H, (DO TOR(0) | 0=0K)

- 0+ + 9' H, (DO TOR(0) | 0=0K)

- 0+ + 9' H, (DO TOR(0) | 0=0K)