Date 20. 1. 2020
Page

TRANSITION SYSTEM

SYSTEM - State space X - set of initial states X° Y - observables U action DYNAMICS subramanium chandrashekhan → c X * U * X VIEW $h: X \longrightarrow Y$

•

ex 0 1 4 9 16 25

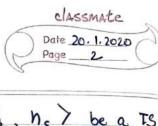
 $S = i^2 \qquad \qquad F(s) = \left(\sqrt{s} + 1\right)^2$

S = H(C) $F: X \to X$

 $H: M \to X$

ex (00 \$00 400 -000 300 800 7 800

bank balance transpaction



(et $S = \langle X_s, X_s^o, U_s \xrightarrow{s} Y_s, h_s \rangle$ be a TS

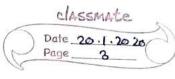
 $\chi_0 \xrightarrow{U_0} \chi_1 \xrightarrow{S} \chi_2 \xrightarrow{U_2} \dots \chi_n$ $\chi_1 \xrightarrow{V_1} \chi_2 \xrightarrow{S} \dots \chi_n$

(2) $(x_0, x_1, \dots x_n)$ is a finite trajectory iff

$$\chi_{c} \xrightarrow{U_{c}} \chi_{1} \xrightarrow{U_{1}} \chi_{2} \xrightarrow{U_{2}} \chi_{2} \xrightarrow{S} \dots \chi_{n}$$

$$\dot{u} = \sin t \cdot \sin t$$

and y: = hs (x;) +; &o, ... n}



3	the finite behaviour of a system S = df=
	union of all finite traces of S BCs)
(3)	the infinite behaviour of a system s - df=
٧	union of all so traces of S B"(s)
	Simulation & } Composition,