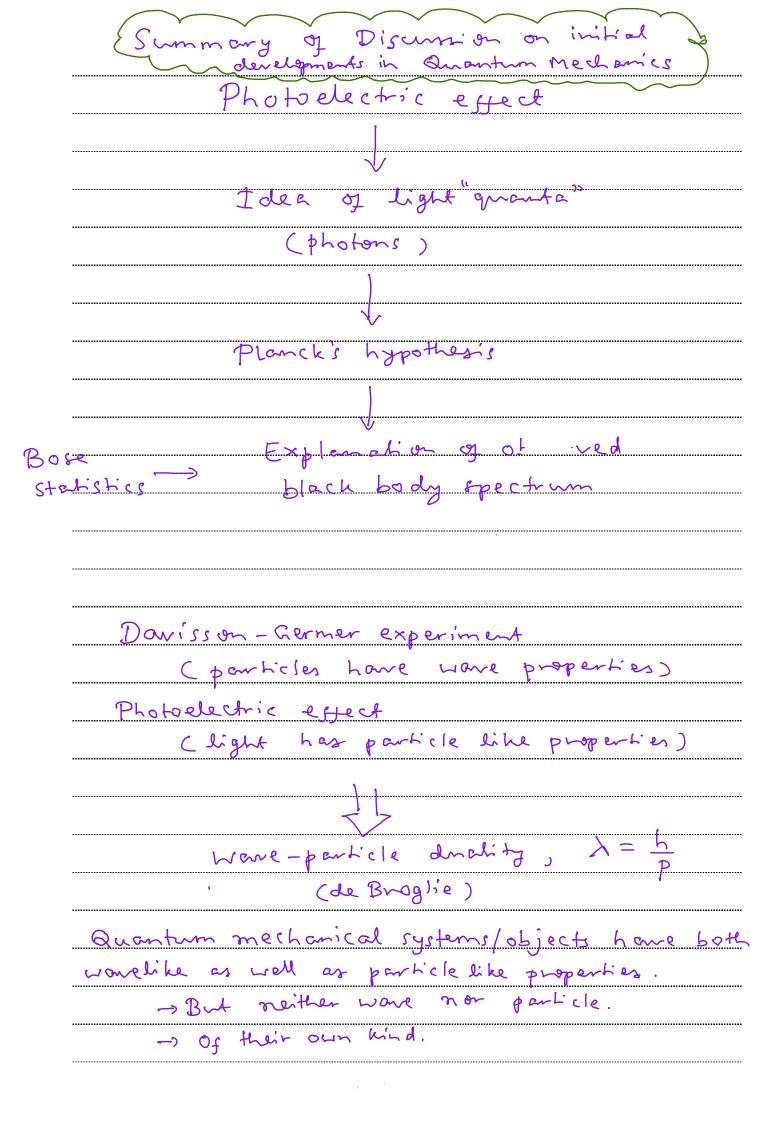
Indian Institute of Technology Patna Preliminaries - I Ajay D Thakur (Quantum Mechanics) Einstein versus Ø You Know CCM renzyH ല the 8 about not )) perfs iH 20 gleme - en class 130 Ą ~ Cr ~ 15 m mechanics ha L' Celly clostract ema no m Derehoped intuit on 9 booඵ mechan classical *is* S y da needs for survival mechan h Q hand dee Ls . the other with object on which we cannot probe using or Fire Sen se correspondence principle Howen helds S, suitable limits in Gr mechanic - P mechanies Classical

PH103: Physics I

LSt abstractions (A-) Differen > State in grow tim mechancy athematical object with A logical structure different from classical mec hamics. (B.) State and meas classical mechanics: labe describing state of a system the same 2 a measurem 55 un one chamies ? They are two differen t things and the relationship between them is subtle & non-intritive



Method of seperation of remiables

4 cm 7 (+) -(x,+) = 2-4(20,4)  $V(n) \Psi(n,t) = it \frac{\partial \Psi}{\partial t} (n,t)$ +  $\frac{1}{2m} + \frac{1}{2m} + \frac{1}{2m}$ d 1 (F) YenoT (モ)  $\frac{d^2 \Psi(n)}{2m} + V(n) = \frac{i\pi}{T(t)} \frac{dT(t)}{dt}$ L. H.S. is a fundiar of no R.H.S. is 5 of t co shile A: 4 for above equation e valid L.H.S. = R.H.S. const a the as I dentify  $+ \vee (2)$ - the dry (n)  $\Psi(x) = E \Psi(x).$ & <u>it</u>  $\frac{dT^{(+)}}{dt} = E (=) T(t) = Ce \overline{T}$ Time independent Schnödinger lyne

1 - C