

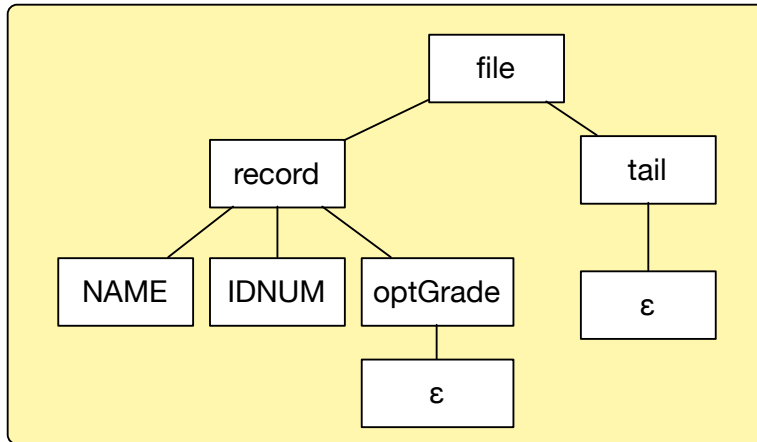
## Homework 6

### Question 1.

- a. Part I: Shortest such correct input

NAME IDNUM EOF

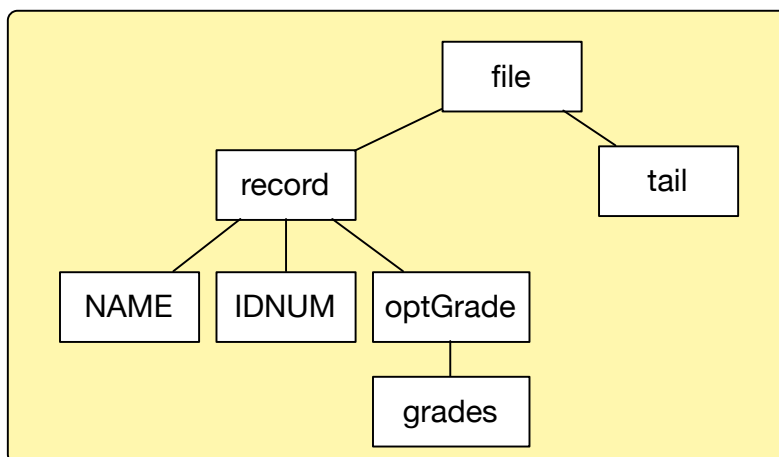
#### Part II: Parse tree



- b. Part I: shortest sequence

NAME IDNUM INTLIT

#### Part II: partial parse tree



Part III: grades  $\rightarrow$  oneGrade | oneGrade COMMA grades

## Question 2

	FIRST_SET	FOLLOW_SET
aa	{A}	{eof}
bb	{D, F, $\epsilon$ }	{B}
cc	{D, F}	{B, D, F}
dd	{E, $\epsilon$ }	{B, D, F}
ee	{G, J, $\epsilon$ }	{B, D, F}
ff	{G, J}	{B, D, F, G, J}
gg	{C, H}	{B, D, F, G, J}
hh	{G, J}	{D}

		FIRST_SET
aa →	A ee bb B	{A}
bb →	cc bb	{D, F}
	$\epsilon$	{ $\epsilon$ }
cc →	D C	{D}
	F ee bb B dd	{F}
dd →	E A ee bb B	{E}
	$\epsilon$	{ $\epsilon$ }
ee →	ff ee	{G, J}
	$\epsilon$	{ $\epsilon$ }
ff →	hh D gg	{G, J}
gg →	C	{C}
	H C	{H}
hh →	G	{G}
	J	{J}