Class Test (20 Marks)

Immersive Reader in Microsoft Forms allows you to hear the text of a form title and questions read out loud while following along. You can find the Immersive Reader button next to form title or questions after activating this control. You can also change the spacing of line and words to make them easier to read, highlight parts of speech and syllables, select single words or lines of words read aloud, and select language preferences.

Points:

13/13

1.E→TE′

E′ → aTE′/ε

T →FT′

T′ →bFT′/ ε

F → cEd/id

In LL(1) Parsing table, M[T', id], M[T', c], and M[T',$] entry contain which of the following values?
(1/1 Point)

○ { }, {T'-> bFT'}, {T'-> ε}
○ { }, { T'-> FT'}, {T'-> ε}
○ { }, { }, {T'-> ε}
○ {T'-> bFT }, { }, {T'-> ε}

2.E→TE′

E′ → aTE′/ε

T →FT′

T′ →bFT′/ ε

F → id

In LL(1) Parsing table, M[T, a], M[T, id], and M[T,$] entry contain which of the following values?
(1/1 Point)

◯ { T →FT'}, { T →FT' }, { }

◯ { }, { F → id}, {T-> ε}

◯ None of these

◯ { }, { F →id }, { }

3.

S -> AA/0

A-> SS/1

Calculate first of (S)
(1/1 Point)

◯ 1 1

◯ 0

◯ 1

◯ 0 1

4.S' → S

S → B C

A → a | bbD

B → a | ε

C → b | ε

D → e | ε

In LL(1) Parsing table, M[S, a] and M[S, b] entry contain which of the following values?

(1/1 Point)

◯ {S->BC}, {S->epsilon}

○ { }, {S->BC}

○ None of these

○ {S->BC}, { }

5.E → TE'

E' → + TE'

T → FT'

T' → x FT' / ∈

F → (E) / id

Follow(T) = ?

○ {+, $}

○ none of these

○ {x, $}

○ { (, id}

6. What is the follow set of C ?

S→ a B C D h

B→ cC

C→ bC/ε

D→ EF

E→ g/ε

F→ f/ε

(1/1 Point)

○ { g,f,h , ε }

○ {g,h}

○ {D}

○ {g,f,h}

7.In this C program, number of tokens are?

printf (int a = %d, "&a = %x, %d", a, &a,b);

○ 21

○ 19

○ 18

○ 20

8.What is the follow (R) ?

P→xRQw

Q→ yz | z

R → w | ε

S → y

○ {y,z}

○ {w,y}

○ {w, $}

○ {w,y,z}

9.S′ → S

S → q A B C

A → a | bbD

B → a | ε

C → b | ε

D → e | ε

In LL(1) Parsing table, M[B, a] and M[B, e] entry contain which of the following values?
(1/1 Point)

○ { }, {B->a}

○ {B->a}, { B-> a}

○ {B-> ε }, { B-> ε }

○ None of these

10.S -> iCtSS' | a

S' -> eS | ε

C ->b

Follow (S) = ?
(1/1 Point)

○ {e, ε}

○ none of these

○ {e, ε, $}

○ {e}

11.What is the First set of D ?

S→ a B C D h

B→ cC

C→ bC/ε

D→ EF

E→ g/ε
F→ f/ε

(1/1 Point)

○ {g,f, ε }
○ {b, g}
○ {g, ε }
○ {g}

12.What is the First set of S ?

S → Z Y/ Z y Y / Y x

X → w x / Y Z

Y → g / ε

Z → h

(1/1 Point)
○ {w,g,h,y,x}
○ {g,h,x}
○ {g,h,y,x}
○ {g,h, ε }

13.E→TE'

E' → +TE'/ε

T →FT'

T' →*FT'/ ε
F → id

Follow(T) = ?
(1/1 Point)
○ {+, $}
○ None of these
○ { $}
○ {+, ε , $}

14.How many tokens available in given lines of code

inta = 10;

String s = "Hi";
(1/1 Point)
○ 9
○ 12
○ 13
○ 10

15.How many tokens available in given lines of code

inta = 10;

/* float b = 20*/

char c = 65;
(1/1 Point)
○ 15
○ 16
○ 9
○ 10