Mahindra University Hyderabad
École Centrale School of Engineering
End Semester Regular Examination

Program: B. Tech. **Branch: ALL** **Year: III** **Semester: I**

Subject: Introduction to Language and Mind (HS 3012)

Date: 18- December- 2024 **Start Time: 10:00 AM**
Time Duration: 3.0 Hours **Max. Marks: 100**

Instructions:

1) All questions are mandatory and carry the marks as shown.
2) There are 3 sections, A, B and C
3) All answers are to be written in the answer booklet only

SECTION: A

Multiple Choice Questions (1 × 25 = 25 Marks)

1. What is the key feature of human language compared to non-human communication?

A) Predictability
B) Recursiveness
C) Simplicity
D) Fixed Signals

2. According to Chomsky, what is responsible for innate language acquisition?

A) Universal Grammar
B) Memory Systems
C) Behavioral Imitation
D) Genetic Mutations

3. What does the term "poverty of stimulus" refer to?

A) Poor teaching methods
B) Inadequate language input
C) Limited cognitive ability
D) Lack of social interaction

4. The critical period hypothesis suggests language acquisition declines after:

A) 5 years

1

B) 10 years
C) 13 years
D) 18 years

5. Which area of the brain is associated with speech production?

A) Wernicke's Area
B) Broca's Area
C) Hippocampus
D) Thalamus

6. What does "I" stand for in the I-language perspective?

A) Innate
B) Internal
C) Intentional
D) Ideal

7. What are the basic building blocks of language?

A) Sounds
B) Words
C) Sentences
D) Phrases

8. What is the distinguishing feature of e-language?

A) Biological foundation
B) Externalized function
C) Innate knowledge
D) Genetic structure

9. What principle is central to Universal Grammar?

A) Language is behaviorally learned
B) Language varies infinitely
C) Language has predictable patterns
D) Language evolves constantly

10. Which stage involves the use of 50-100 words in children?

A) Babbling stage
B) One-word stage
C) Two-word stage
D) Telegraphic stage

11. What is the role of Broca's area in language?

A) Understanding speech
B) Speech production
C) Recognizing sounds
D) Controlling hearing

12. What is the "innateness hypothesis" associated with?

A) Learning through imitation
B) Biologically hardwired language capacity
C) Dependence on external stimuli
D) Memorization of vocabulary

13. Who introduced the term "I-language"?

A) Charles Darwin
B) Noam Chomsky
C) Karl Wernicke
D) B.F. Skinner

14. What type of language learning is "child's play"?

A) Second language acquisition
B) First language acquisition
C) Learning through behaviourism
D) Learning grammar explicitly

15. Which of the following is NOT a feature of human communication?

A) Creativity
B) Arbitrariness
C) Recursiveness
D) Limited signals

16. What is the key argument against FOXP2 as a "language gene"?

A) It only controls vocal tract movements
B) It causes complete language loss
C) It has no evolutionary link
D) It is irrelevant to language

17. Which stage of language development is characterised by cooing sounds?

A) Babbling stage
B) Pre-linguistic stage
C) Telegraphic stage
D) Two-word stage

18. What feature makes human language recursive?

A) Use of unique symbols
B) Infinite combinations of sentences
C) Rigid structure of grammar
D) Fixed vocabulary

19. Which of the following is NOT an example of tacit knowledge?

A) Knowing the correct gender agreement in Hindi
B) Memorizing vocabulary lists
C) Judging grammatical correctness
D) Differentiating valid words in a language

20. Which of these terms refers to the internalised rules of language that allow pattern recognition?

A) E-language
B) LAD
C) KoL
D) UG

21. _____ Area is adjacent to the area that controls motor movements of the vocal tract.

A) Wernicke's area
B) Broca's area
C) Frontal lobe
D) Temporal lobe

22. Damage in the corresponding right hemisphere shows little effect on_____

A) Hearing
B) Speech
C) Vocal chords vibration
D) Nasal cavity

23. _____aphasics are fluent. They are in a rush and use several words. But have difficulty understanding them and making sense.

A) Anomic aphasics
B) Conduct aphasics
C) Wernicke's aphasics
D) Broca's aphasics

24. What is the Language Acquisition Device's primary role (LAD) role?

A) To translate languages
B) To process language input and generate rules
C) To store vocabulary
D) To improve memory retention

25. What does the critical period hypothesis suggest about language learning?

A) Adults learn languages faster than children
B) Language acquisition is limited by age
C) Grammar can only be learned in formal education
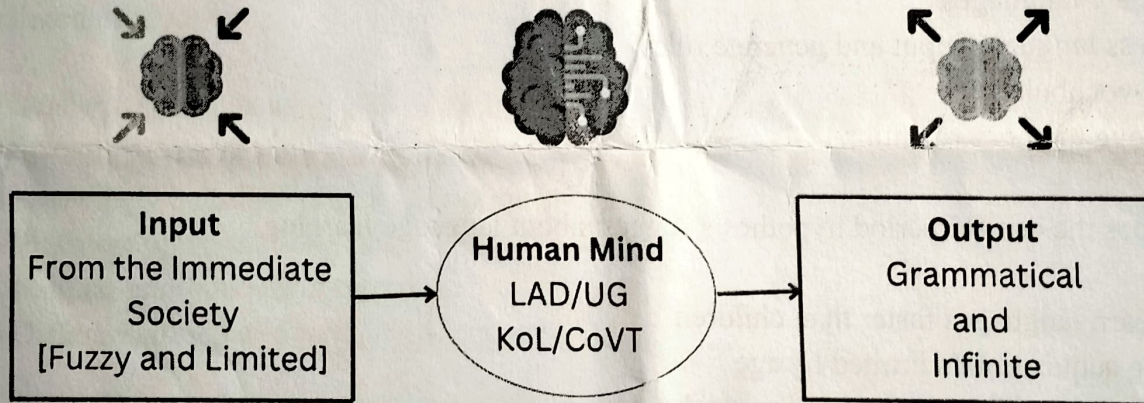D) Vocabulary learning improves with age

SECTION: B

Write **any** 6 short answers for 5 marks each. Answer in 80-100 words (6 × 5 = 30 Marks).

1. Explain the role of the "Language Acquisition Device (LAD)" in language learning.
2. What are the differences between I-language and E-language in the context of language and mind?
3. Define "poverty of stimulus" in language acquisition. Why is it significant?
4. What does the "critical period hypothesis" state about language learning?
5. Compare the roles of Broca's and Wernicke's areas in language processing.
6. How does tacit knowledge influence language use?
7. How do children acquire language through patterns? Discuss with examples.

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SECTION: C

Write <u>any</u> 3 long answers for 15 marks each. Answer in 250-300 words (3 × 15 = 45 Marks).

1. Discuss the importance of Universal Grammar and its relationship with the Language Acquisition Device in language development.

2. Eleborate the language processing model in the human brain with suitable examples.

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│       Input         │        │  Human Mind  │        │      Output         │
│ From the Immediate  │  ───►  │   LAD/UG     │  ───►  │   Grammatical       │
│     Society         │        │   KoL/CoVT   │        │      and            │
│ [Fuzzy and Limited] │        │              │        │    Infinite         │
└─────────────────────┘        └──────────────┘        └─────────────────────┘
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3. How do language and mind complement each other? Connect linguistics with cognitive sciences?

4. Describe human sound engineering with examples, discuss the conditioning of the vocal tract (CoVT), and relate it to the UG and LAD.