Assignment No - 1B

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ROLL NO - 20

Batch -

Sem - VII (I.T)

Subject - A.I.

Assignment No-1B

Q.1. Explain PEAS descriptions for wumpus word

i) performance measure
+100 for grabbing the goal and coming back to start.
-200 if the player is killed.

ii) Environment
- empty Rooms
- Room with wumpus which are smelly
- Room with gold which glitery
- Arrow to that wumpus.

iii) Sensors (assuming a robotic agent.
- Camera to get the view
- Audio sensor to listen to the Screen

iv) Effector (assuming a robotic agents.
- motor to move left right
- Robot arm to grab the gold
- Robot mechanism to shoot the arrow.

Q2 Explain various elements of Cognitive System

Cognitive Computing is a new type of Computing with the goal of more accurate models of how human Genrally the term cognitive computing is used to refer to new hardware and for software that mix the following functions software thereby improving human decision making Computing Content for a particular type of audience.

a) Interactive - They may interact easily with user so that can be define their Comfortable They may also interact

b) Adaptive - They may be engineered to feed on dynamic data in real time. They may learn as information changes

c) Contexual - They may understand identify and extract, contexual elements such as meaning syntax.

d) Interactive and Software - They may aid in defining a problem by asking problems Statements in incomplete

Q2. Write note language model

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The goal of a language model is to compute probility of a token eg. sot sentence a sequence of word

- Language model (LM) aurally a grammar of a language at it give the probility of word that will follow.

- From the mark V Assumption, we can formaly derive model where,

$K = n-1$ as following

$P(w_1 | w_1 w_2 \ldots w_{i-1})$

Unigram model ($K = 1$)

$$P(w_1 w_2 \ldots w_n) = \prod_i P(w_i)$$

Bigram model ($K = 2$):

$$P(w_i | w_1 w_2 \ldots w_{i-1}) = (P w_i - w_{i-1})$$

$$(w_1 | w_{i-1}) = \frac{\text{Count}(w_{i-1} \ldots w)}{\text{Count}(w_{i-1})}$$

Q4. Write a note on machine Translation.

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Machine Translation is classic test of language understood It Contain of both language analysis generation. many machine translation System have huge commercial.

- Goole Translate goes through 100 billion word perday.
- Facebook user (xz) to translate text inpath and buider trade to break language barrier.
- System become The first software provider To launch barrier.
- microsoft brings AI-powered translation to end wers and developers Android, iOS, and Amzen Fire.
- In a medtical machine Transation to end words and developers.
- In a traditional machine Translation to end words and developers on Android ios and Amzen Fire.
- This abious That this approach steps of important details requires alot of human

Qs. Explain the following:-

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a) phonology.
- It is the study of organizing sounds in an NLP (natural language process) system

b) morphology.

It is a study of construction of words from meaningful units.

c) Lexical Analysis
Lexicon is the words and phrases in language structure of sentence. It divides the paragraphs in sentence divides the paragraphs in sentence.

d) Syntatic Analysis.
In Syntatic Analysis the sentence are passed noun verb adjective and other sentence is analyzed therein.

e) word sense disambiguation
- while using words that attain more than one meaning behave select meaning which the rest of words associated word from