Assignment No: 1B

a:1	Explain PEAS descriptors for munus work
->	1) bertaumance wederne
	18) + 100 for grabbing the goal and coming barry
	to start
	20 -200 if the player is killed
	- 1 per action
	-10 for using the arrow.
	oil Environment
	- Empty rooms
	- Room with wumps
	- Room neighbourng to wumpus which are
- 40	smely and
	- Rooms with bottomless pits
	- Rooms & neighbouring with bottomless
	pirs which gre breezy
	- Roum with gold which is glilery
	- Arrow to shoot the wumpus
	The sensors cassyming drobate agent)
	camera to get the view
	- adour sensor to smell the slowch
	= Hunro sensor to listen to the screen and
	BOTTO .
	Motor to marco in a volote agent)
	- konot arm to acate 11
	The House to should it
	The country agent has particular
	characleutsic.
1	
90	Pail obserable b) peleminstric c) fpisodic
- (A)	state e) discrete El single agont

a-2) Explain various elements or cognitive system

Cognitive Computing is a new type of Computing with the goal of more accurate models of how the human brain/mind Senses, reasons and responds to stimulus Generally, the term cognitive Computing is used to refer to new hardware and for Software that mimic the pollowing functioning of the human brain thereby improving human decison making Cognitive Computing application links data analysis and adaptive page diplay ie adaptive user interfaces to adjust Content for a particular type of audience.

- following are blements of Cognitive System: -

So that these users can define their needs (omfortably they may also interact with other processors devices and cloud Services, as well as with people.

Adaptive: - They may be engineered to feed on dyname data in realthe they may learn as information charges and a goas and requirements evolve. They may reso we ambiguity and tolerate unpredictability behaviors

O contextua! - They may undervaled, identify and extract contensyal elements such a meany syntax location appropriate forman etc.

PAGE NO.			7
DATE	1	1	1

d) Theretie and Stateful! - They may will in deping a problem by asking questing deping additional source input if a problem or finding additional source input if a problem.

Statement is incomplete.

0.8) Write note on language Model is to compute
The goal of a language Model is to compute
a probability of a token eq. a sentence or
sequence of words and one useful in many
different NPL applications.

- lananguage Mode com actually a grammor
of a language as it gives the probability of
word that will follow

- In case of (im) the probability of a Sentene as Sequence of words is: - P(w) = p(w, wz, w) - It can also be used to find the probability of the hext word in Sentenes. P(ws, w, wz, ms, w)

- A model that compula either of these is language Model

- There are various language Model available q

a) Methods using markov assumption: -

- A process which is stochate in nature, is
Said to have the marker property if the ramitmel
probability of future Stales depends upon
mesent state.

b) N-gram Models:

- from the markov Assumptions, we can formally define moders where Kintless fallowing.

FAGE No.	/	7
DATE /	11	1

p(w, |w, w, -. w, -1) Qunigram model (k=1): p(w, w, -. w, n) = 71 p(wi)

d) Bigram Model (K=2)!
p(W,|W,|W2:-Wi-1) = p(W,|W,-1)

(W, | W; -1) = (ount (Wi-1...w) (ount (Wi-1)

air Write a note on Machine Transaction:

Machine Translation is classis test of language understand It consists of both language analysis and generation many machine translation system have huge commercial use following are few of the examples.

per day

(ross border trade and connect buyers / severs
ground globe

and comments automatically in order to break language barriers

to launch a neural machine Translation engine in more than 30 languages in 2016.

to end users and developed on androw his

/	PAGE No.		7
L	DATE	11	7

In a traditional Machine Translation Systems

parallel corpus a Calection of try is used

to each or width is translated into one or

more other languages than the original par

example given the Source language eq.

french and the target language eq. English,

multiple statistical Models needs to be build

including a probabilist formulation using

the Regesian Rule, a translation model proe

trained on parallel Corpus and a language

model Epres trained on the english Corpes

— It is obivious that, this approach strips hundra

of important details, required a lot of hymon

Regional Realtime engineering, and is overall

a complex system.

Q.S] Explain the railoung terms.

a) phonology:

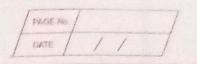
It is the study of organizing Sounds systematically in an NEP enatural language processing, system

Marphology! -

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

C) lexical Analysis.

lexiton is the words and phrases in languages
(exital analytis deals with the recognition



and identification of structure of sonlernes Intres the paragraph in sentences, phrases and words.

Syntatic Analysis: In Syntatic Analysis the Sentences Gre passed of Syntatic Analysis the Sentences Gre passed of Syntatic Analysis the Sentences of the Parts of Sentences. In this phase, the grammer of the Sentences is analyzed in order to get relationship among different words in Sentences por example, mango eat me will be rejected by analyzer

werd Gense disambigution

while using words at hothat have more than

one one aning we have to select the meaning

which makes the most Sense in consext thorexame

we are typically given a list-of words

associated word Senses eq. from a dictionary

or from an anline resource such as wordnet.