MID TERM ASSIGNMET

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PROGRAM: MBA 3.5 1ST SEMESTER

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SUBJECT: LOGIC AND CRITICAL THINKING

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| Q1: What is logic? Differentiate between deductive and inductive arguments. Provide at least 5 examples of each. The examples should be self-made and not copied from any book etc. |

Answer no: 1

ʟᴏɢɪᴄ : logic is derived from Greek word “logos” which means set of words , thoughts , ideas , arguments etc . It is basically the study of principles and criteria of true and valid inference and demonstration and study of reasoning. Originally logic is free of emotions and deals with very specifically with information in its true and purest form.

Further their are two types of logic .

—> ɪɴғᴏʀᴍᴀʟ ʟᴏɢɪᴄ

—> ғᴏʀᴍᴀʟ ʟᴏɢɪᴄ

I͢N͢F͢O͢R͢M͢A͢L͢ L͢O͢G͢I͢C͢: It is the type , which is used in everyday reasoning and arguments.

F͢O͢R͢M͢A͢L͢ L͢O͢G͢I͢C͢: It deals with the validity of the inferences produced . For an argument to work , the result must logically follow the premises and the premises must be true and correct .

S͟I͟M͟P͟L͟E͟ E͟X͟A͟M͟P͟L͟E͟

• Every dog is a mammal .

• Some carnivores are dogs .

Therefore, some carnivores are mammals.

Logic covers core topics such as the study of fallacies and paradoxes , as well as specialised analysis of reasoning using probability and arguments using causality and argumentation theory.

L͟E͟T͟S͟ D͟I͟S͟C͟U͟S͟S͟ A͟R͟G͟U͟M͟E͟N͟T͟S͟

An argument is an exchange of opposite views , typically an angry one . It is set of reasons gives in support of an idea , action , or any theory .

There are two types of arguments .

—> ɪᴅᴜᴄᴛɪᴠᴇ ᴀʀɢᴜᴍᴇɴᴛ

—> ᴅᴇᴅᴜᴄᴛɪᴠᴇ ᴀʀɢᴜᴍᴇɴᴛ

•ɪᴅᴜᴄᴛɪᴠᴇ ᴀʀɢᴜᴍᴇɴᴛ : “An inductive argument reasons through specific fact or observation to arrive at a general principal or draw a broad conclusion.”

In simple words , it proceeds from specific instances to general conclusion .

Think of the homicide detective who follows specific clues and collect evidences regarding the perpetrator of a crime . Here we have ‘observations’ which brings the detective to a broad ‘result.’

E͟X͟A͟M͟P͟L͟E͟S͟:

1) New Zealand defeated India in their first and second match. So it means New Zealand will defeat India in finals also.

2) The first phone Ali bought was an iPhone . The second phone which Ali bought is also an iPhone . So the third time when he’ll buy a phone will also be an iPhone .

3) The first car usman bought was of white colour . The second car he bought was also white in colour . Therefore , we can say usman likes his cars to be of white colour .

4) The first pen Ghani bought was a gel pen . The second one was also a gel pen. So it seems that Ghani is a gel pen lover and a user.

5) Tyson is a Rottweiler dog. Rottweilers are mostly hardworking and are originally bred to drive cattle’s to the markets . So it means Tyson is hardworking .

—-> ᴅᴇᴅᴜᴄᴛɪᴠᴇ ᴀʀɢᴜᴍᴇɴᴛ: Unlike an inductive argument, a seductive argument reasons from a broad generalization or stated principle to draw a conclusion about one specific instance .

Here we can say , to solve an equation we must follow algebraic rules to work through the steps that will lead to a solution. If we apply the right rules and if you do each step correctly , our answer will be correct . Mistakes in applying the rules will results in an incorrect answer. A deductive argument is convincing only if the principles on which it is based are sound.

E͟X͟A͟M͟P͟L͟E͟S͟:

1) All bikes have two wheels. KTM 200 Duke is a bike. Therefore KTM 200 Duke has 2 wheels .

2) Usman likes dogs. Golden retriever is a dog. Therefore usman likes Golden retriever.

3) Humans have cells in their bodies. Cells consists DNA. Therefore , all humans have DNA.

4) John likes to go to the gym on daily bases . People workout in gym. Therefore John likes to workout .

5) It is dangerous to drive fast. Roads gets wet during rain. So it is dangerous to drive fast during rain.

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| Q2: Discuss the five basic functions of language with examples as many as possible. Also discuss emotively neutral language with examples from daily life. |

Answer no :2

L͟A͟N͟G͟U͟A͟G͟E͟ : Language is a complex system of communication , verbal or non-verbal, spoken or written . In actual , natural languages are spoken or signed . Artificial languages AKA man made languages are called ‘Braille’ used for the blind people.

O͟R͟I͟G͟I͟N͟ O͟F͟ L͟A͟N͟G͟U͟A͟G͟E͟:

According to Danish linguists “Oho Jepersen” a human language is in poetic form , not in prosaic form.

People of different religions have different beliefs regarding language.

—> Muslims believe that Allah created Adam , and he was given the ability to speak and from him we humans acquired language.

—> Christians have the same belief.

—> Hindus believe that “Sarasvati” wife of “Brahma” has given us language .

Many experiments were held in order to prove the statements given by different people.

Now according to “Geoffrey leech” , their are five basic functions of languages .

—> ɪɴғᴏʀᴍᴀᴛɪᴏɴ

—> ᴅɪʀᴇᴄᴛɪᴠᴇ

—> ᴇxᴘʀᴇssɪᴠᴇ

—> ᴀᴇsᴛʜᴇᴛɪᴄ

—> ᴘʜᴀᴛɪᴄ

I͟N͟F͟O͟R͟M͟A͟T͟I͟O͟N͟A͟L͟ F͟U͟N͟C͟T͟I͟O͟N͟

This can be considered as the most important function of language , since it helps us deliver messages,express our inner feelings , describe things and ables us to provide our listener with new information. Basically a message is word that describe this function best. This function of language is related to such terms like “truth” and “value”.

E͟X͟A͟M͟P͟L͟E͟S͟:

1) The sky is blue.

2) The play was dramatic.

3) He likes to travel.

4) People of Norway are worried .

5) There is an update regarding recent avalanche.

D͟I͟R͟E͟C͟T͟I͟V͟E͟ F͟U͟C͟N͟T͟I͟O͟N͟

This function is used to induce specific actions or reactions . Simple we can say “command” and “request”.

Situational and affective meanings of a phrase are more essential . This function is a function that shows inter-personal and social control. Another aspect aspect of this function is that the reaction of the listener is even more important then the thoughts or ideas expressed by the speaker.

E͟X͟A͟M͟P͟L͟E͟S͟ :

1) Sleep now .

2) Go to the shop.

3) Bring some snacks .

4) Finish up your work.

5) Sit quietly.

E͟X͟P͟R͟E͟S͟S͟I͟V͟E͟ F͟U͟N͟C͟T͟I͟O͟N͟

Due to this function of language , we can easily express our feelings and emotions . There are certain words that are use to express feelings , impressions but do not deliver any specific information. Simple and obvious example of such words are swear words , as well as various exclamations . This function is not use to deliver a message but is use to express impressions .

E͟X͟A͟M͟P͟L͟E͟S͟ :

1) I love this movie a lot.

2) The flowers are so pretty .

3) He loved the show.

4) I liked that chocolate cake.

5) He had an amazing ride .

A͟E͟S͟T͟H͟E͟T͟I͟C͟ F͟U͟N͟C͟T͟I͟O͟N͟

This function does not have a specific purpose. This function shows neither a request nor a message . Words like “gorgeous” , “stunning “ , “beautiful” etc are used.

E͟X͟A͟M͟P͟L͟E͟S͟ :

1) Beautiful car

2) Handsome man

3) Elegant style

4) Decent suit

5) Stunning couple

P͟H͟A͟T͟I͟C͟ F͟U͟N͟C͟T͟I͟O͟N͟

This function is use to maintain social relationships and to begin or continue the conversation. Phatic function doesn’t not provide us with any necessary information . It does not even expresses feelings , but only held us to interact with people. When we meet someone on streets , outside the shops etc we usually have short talks , in which we often talk about the weather , children , work etc. The real purpose of such talks is not interest but a desire to talk.

E͟X͟A͟M͟P͟L͟E͟S͟ :

1) “Nice day”

2) “good morning”

3) “take care”

4) “see you soon”

5) “talk to you later”

PART B:

E͟M͟O͟T͟I͟V͟E͟L͟Y͟ N͟E͟U͟T͟R͟A͟L͟ L͟A͟N͟G͟U͟A͟G͟E͟

The word “emotively neutral” is composed of two separate terms , ‘emotive’ and ‘neutral’ .

Emotive language is the deliberate choice of words to elicit emotions.

In emotive language , ideas can be expressed in a way that is positive or negative, welcoming or threatening . It depends upon the words which are selected .

Here simple we can say ,

—> The victims were executed in cold blood.

—> The men were killed .

Comparing both the statements, we find the non-emotive words in second statement .

Now unbiased or neutral language is a kind in which everything is considered equal and neutral. No greater no less .

E͟X͟A͟M͟P͟L͟E͟S͟:

1) A shy and innocent student was bullied in school during winters .

Here ‘shy’ , ‘innocent’ and ‘bullied’ shows the emotive language .

2) An innocent bystander suffered facial injuries when the thug launched his glass across the bar.

‘Innocent’ , ‘suffered’ shows emotive language .

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| Q3: Discuss the different kinds of Fallacy of Relevance and Fallacy of Ambiguity with the help of examples. |

Answer no: 3

F͟A͟L͟L͟A͟C͟Y͟

A fallacy is an error in logic , or false reasoning. A kind of error that interferes with the validity , or soundness , of an argument .

Most fallacies can be sorted into two categories : those that ignores issue and those that oversimplify issues.

F͟A͟L͟L͟A͟C͟Y͟ O͟F͟ R͟E͟L͟E͟V͟A͟N͟C͟E͟

These fallacies require evidences or examples that are not relevant to the argument. The word relevant itself means the suitable one or the most correct one .

Following are the different kinds of fallacy of relevance:

—> ᴀᴘᴘᴇᴀʟ ᴛᴏ ғᴏʀᴄᴇ

—> ᴀᴘᴘᴇᴀʟ ᴛᴏ ᴘɪᴛʏ

—> ᴀᴘᴘᴇᴀʟ ᴛᴏ ᴇᴍᴏᴛɪᴏɴ

—> ᴀᴘᴘᴇᴀʟ ᴛᴏ ᴀᴜᴛʜᴏʀɪᴛʏ

—> ᴀᴘᴘᴇᴀʟ ᴛᴏ ɪɢɴᴏʀᴀɴᴄᴇ

—> ɪʀʀᴇʟᴇᴠᴀɴᴛ ᴄᴏɴᴄʟᴜsɪᴏɴ

• A͟P͟P͟E͟A͟L͟ T͟O͟ F͟O͟R͟C͟E͟ (argumentum ad baculum) :

In this kind , someone who have power and money threatens to bring down the ill consequences upon anyone who dares to disagrees with a proffered proposition. Following are the statements might proposed by appeal to force:

—> If you do not show agreement with my opinions , you will receive a garde F for this course.

—> I believe that ‘ Barack Obama ‘ was the best president of America.

—> Therefore , Obama was the best president of America.

• A͟P͟P͟E͟A͟L͟ T͟O͟ P͟I͟T͟Y͟( argumentum ad misericordiam) :

Appeal to pity tries to win the acceptance by pointing out the ill and unfortunate consequences that will otherwise fall upon the speaker and on others for whom we feel sorry and have a merciful feeling.

—> I am the only one taking care of my four young brothers , I am responsible for their financial and other sources .

—> If you give this traffic ticket, I’ll lose my license and won’t be able to drive to my office for the work in order to help my brothers grow.

—> If I won’t be able to work , I won’t earn money then their is a possibility of starvation , becoming homeless .

—> Therefore, you should not give me the traffic ticket.

Again the conclusion may be false even if the statements are true, so the argument is fallacies .

• A͟P͟P͟E͟A͟L͟ T͟O͟ E͟M͟O͟T͟I͟O͟N͟(argumentem ad populum):

In this kind emotions are used. It relies or depends upon the emotively charged language or kind of strong feelings that convinces the audience to accept its conclusion (good or bad)

—> As all the clean/clear- thinking residents of our fine state have already realised , the Governor’s plan for financing public education is nothing but the bloody-fanged wolf of socialism cleverly disguised in the harmless sheep’s clothing of concern for children .

—> Therefore , the governor’s plan is bad public policy .

Here the problem is defined is flowery language which is composed of strong emotions and feelings, that has nothing to do with the conclusion .

• A͟P͟P͟E͟A͟L͟T͟O͟A͟U͟T͟H͟O͟R͟I͟T͟Y͟(argumentem as verecundiam) :

Here we have that the opinion of someone famous in the other areas expertise is must to be guarantee and must the true.

—> The famouse celebrity believe that , lemon is a fruit.

—> Therfore, lemon is a fruit.

Mistakes can be found in this appeal to authority .

• A͟P͟P͟E͟A͟L͟T͟O͟I͟G͟N͟O͟R͟A͟N͟C͟E͟(argumentem ad ignoratiam):

This proposes that we accept the truth of the proposition unless someone from the other side can prove it.

—> Up till now no can prove that there is no life on the moons of the planet Jupiter.

—> Therefore , there is a life on the moons of the planet .

Here we don’t have an evidence so we cannot say rather it’s true or not.

• I͟R͟R͟E͟L͟E͟V͟A͟N͟T͟C͟O͟N͟C͟L͟U͟S͟I͟O͟N͟(ignoratio elenchi):

This provides a true conclusion for the proposition that actually provides a support .

—> All children’s get special attention from their parents.

—> Parents who work cannot give attention to their kids.

—> Therefore, mother should not work full time .

F͟A͟L͟L͟A͟C͟Y͟ O͟F͟ A͟M͟B͟I͟G͟U͟I͟T͟Y͟

An ambiguous word, phrase, or sentence who has two or more distinct meanings . The fallacies of ambiguity involves lots of confusions .

• ᴇǫᴜɪᴠᴏᴄᴀᴛɪᴏɴ

It depends upon the word or a sentence in one of its meaning in its first statement but also have a second meaning in its second statement .

—> Really exciting novels are rare.

—> But rare books are expensive .

—> Therefore, really exciting books are expensive.

• ᴀᴍᴘʜɪʙᴏʟʏ

It occurs when every single word in an argument is univocal. Or the grammatical structure of a statement creates it own ambiguity .

—> A merciless motorist Sunday struck and injured a student who was jogging near the path.

—> Therefore, it is unsafe to jog near the path.

Grammatical mistakes can be seen .

• ᴀᴄᴄᴇɴᴛ

Change of language might be seen in an argument .

—> Jack turned in his test on time today.

—> Therefore , Jack usually turns in his tests.

• ᴅɪᴠɪsɪᴏɴ

It involves an inference from the attribution of some feature to the whole class .

—> Octopuses are now rarely found.

—> Blue -ringed is an octopus.

—> Therefore, blue- ringed is rarely found.