

B.Tech.
First Semester Examination, 2009-2010
Essentials of Communication (HUM-101-F)

Note : Out of the nine questions attempt five questions. Question 1 is compulsory. All questions carry equal marks is 20 marks each.

Q. 1. (a) Give synonyms of four words given :

(i) adept (ii) reliable (iii) peril (iv) obsolete

Ans. (i) expert, (ii) dependable, (iii) danger, (iv) outdated

Q. 1. (b) Give antonyms of four words given :

(i) advance (ii) broad (iii) loose (iv) transient

Ans. (i) back, retreat, (ii) narrow, (iii) tight, (iv) permanent

Q. 1. (c) Fill in the blanks with correct word :

(i) The crops have withered due to the long (draught/drought)

(ii) The prisoner's cross-examination failed to (illicit/elicit) any useful information.

(iii) Your writing is (illegible/eligible)

(iv) The satellite was kept (stationery/stationary) in its orbit.

Ans. (i) drought, (ii) elicit, (iii) eligible, (iv) stationary

Q. 1. (d) Transcribe (IPA form) four given words :

(i) calm (ii) measure (iii) knot (iv) shade

Ans. (i) /kɑ:m/, (ii) /meʒə/, (iii) /nɒt/, (iv) /ʃeɪd

Q. 1. (e) Write in 4 lines the working of an RO system or a tube well.

Ans. RO System : It is reverse osmosis in full form. The RO system works on electricity. It removes total dissolution of salt, bacteria and other impurities. The water becomes potable in this way.

Tube Well : A tube well is a hole in the ground upto depth of availability of water. There a cavity is created by sucking out loose earth till water starts flow. Then a pump is installed which works with electricity.

Q. 2. (a) Make words from the following prefixes and suffixes :

(i) sub - (ii) super - (iii) extra -

(iv) - ism (v) omni - (vi) - tion

(vii) - esque (viii) - ture (ix) - ize

(x) - ate

Ans. (i) subdivision, subservient (ii) superfast

(iii) extraordinary (iv) communism

(v) omnipresent (vi) solution

(vii) picturesque

(viii) fracture

(ix) synthesize

(x) update

Q. 2. (b) Do as directed for any five :

(i) Give the 'verb' and 'adjective' for the word collection.

Ans. Verb—Collect, Adjective—Collected

Q. 2. (ii) Give the 'verb' and 'adjective' for the word haste.

Ans. Verb—hasten, Adjective—hasty

Q. 2. (iii) Give the 'noun' and 'adjective' for the word sense.

Ans. Noun—sense and sensitivity, Adjective—sensitive and sensible

Q. 2. (iv) Give the 'noun' and 'adjective' for the word harm.

Ans. Noun—harm, Adjective—harmful

Q. 2. (v) Differentiate between 'momentary' and 'momentous'.

Ans. Momentary : The pain was only momentary.

Momentous : The Republic Day celebrations are a momentous occasion in the history of India.

Q. 3. (a) Make sentences based on the following structures :

(i) S + V + subject complement.

(ii) S + V + to-infinitive.

(iii) S + V + gerund.

(iv) S + V + indirect object + direct object.

(v) S + V

Ans. (i) He became the captain.

(ii) I like to play.

(iii) I like singing.

(iv) He gave me a pen.

(v) Birds fly.

Q. 3. (b) Synthesize the sentences as per directions given in the brackets :

(i) Bruno is my faithful dog. I love him.

(join using phrase in apposition)

(ii) I speak the truth. I am not afraid of it.

(join using infinitive)

(iii) The King died. His eldest son came to the throne.

(join using 'having' i.e., nominative absolute construction)

(iv) He will be late. That is certain.

(join to form a complex sentence)

(v) They won the match. They went home.

(join using participle)

Ans. (i) I love Bruno my faithful dog.

(ii) I am not afraid to speak the truth.

(iii) The king having died, his eldest son came to the throne.

(iv) That he will be late is certain.

It is certain that he will be late.

(v) Having won the match they went home.

Q. 4. (a) Write a long note on :

(i) Vowels in Phonetics,

(ii) Consonants in Phonetics.

Ans. (i) Vowels in Phonetics : Vowels are speech sounds. When we produce these sounds the pulmonic air comes out freely from the mouth. There is no closure of air passed to cause friction. The cavities of the pharynx, the mouth and the nose modify the sounds produced by the larynx. The position of the soft palate, the tongue and the lips also play an important role in articulating vowels. All English vowels are oral. In producing vowel sounds the soft palate is raised to block the nasal passage. Vowels are classified as—(a) Front, (b) Back, or (c) Central according to the position of the tongue raised.

(a) Front Vowels : i:, i, e x, ^

Back Vowels : a:, ɔ:, u, u:

Central Vowels : ɜ:, ə

They are further sub-divided as close, half close, half open and vowels in which lips are also used : 1. lips spread - i:, 2. Neuk 3. Lips open-a:, 4. Open rounded -ɔ: and 5. lips closed - i:, a:,): and u: are also known as pure vowels.

A Note on Consonants : In production of consonants the air coming out of lungs is modified by organs of speech and there is friction. We use pulmonic air. It is egressive. Consonants are either voiced or voiceless. The soft palate is either raised or lowered. They can be oral, nasal or nasalised. Then place and manner of articulation are also responsible for production of consonants speech sounds. While most consonants are voiceless, P, t, k etc. are voiced.

Q. 4. (b) Transcribe any 10 of the given 15 words :

(i) car

(ii) doctor

(iii) measure

(iv) sweet

(v) wet

(vi) palm

(vii) touch

(viii) hand

(ix) wind

(x) charm

(xi) five

(xii) ink

(xiii) hot

(xiv) debt

(xv) bun

Ans. (i) car—/kɑ:/

(ii) doctor—/dɒktə/

(iii) measure—/meʒə/

(iv) sweet—/swi:t/

(v) wet—/wet/

(vi) palm—/pɑ:m/

(vii) touch—/tʌtʃ/

(viii) hand/hænd/

(ix) fine—/faɪv/

(x) charm—/tʃɑ:m/

(xi) wind—/wɪnd/

(xii) ink—/ɪnk/

(xiii) hot/hɒt/

(xiv) debt—/det/

(xv) bun/bʌn/

Q. 5. (a) Paraphrase the following verse and suggest a suitable title for it :

People study all of scripture

But still remain obtuse as ever.

He alone is learned, who

Puts learning into practice true.

Medicine though well made it be

The suffering patient cannot free

Of his ailment, just the same,
By mere taking of its name.
The rules of science give no profit
To one who shies from application
The blind may hold a lamp which is lit,
But do they have illumination?

Ans. People read scriptive but do not acquire any practical knowledge. Only the person who practices what he reads is learned in the same way as a patient cannot be cured only by taking the name of a medicine and not eating it. Rules of science are also to be applied to derive any benefit. A blind man can see no light even with a lighted lamp. He can see the light only if he had the eye sight.

Q. 5. (b) In the light of above poem comment :

Whether knowledge necessarily mean wisdom and breadth of mind. Also review the poem to emphasize its relevance to our education system i.e., Does our education system emphasize practice?

Ans. Knowledge without translating it into practice is useless. It can import wisdom and broaden our mind only if we bring it in to practice. Our education system is faulty. Students are forced to cram and gather information. Students who are good in theoretical knowledge are very poor in doing practical. They cannot translate the theory into practice. But sadly enough our education system does not emphasize practice. Classroom lectures only heap information and burden the mind of the students. There is little arrangement of demonstrating the theoretical knowledge into practice.

Q. 6. (a) Write a Group Discussion on any one :

(i) Contribution of Engineers to the Progress of India.

Ans. A : The modern world is an age of technology. Don't you agree that we need engineers to build a new India?

B : Sure I do. Engineers are builders of the nations infrastructure.

X : But Engineers alone are not enough for building a nation and so India. India is still a developing country and besides buildings, dams, railways, electronic towers, the hungry people need food. I think farmers are more important than engineers.

Y : But what can farmers do without engineers and technology? In fact we also need resources for motive the technological requirements of the country. Hence, business and production of wealth are also necessary.

A : Yes, I admit it is right but I feel you are digressing from the main question. All other things apart, engineers are essential. Everything, whether big or small, is made in factories involving knowledge of all branches of engineering. We need a very large number of engineers for them.

B : It is engineers that build factories and machines. They facilitate production of steel, cement and other material for construction. Their contribution to the progress of India is great.

Y : Yes, Nobody can deny the role of engineers in the progress of India. My point, however, is that there should be someone, some resources for producing engineers and they also contribute to India's progress.

X : Yes, Everybody has to contribute to India's progress and we should accept that engineers alone may not be enough and contribution of every Indian, whatever his or her station in life, is essential.

Q. 6. (a) (ii) Role of youth in Politics.

Ans. X : India is a fast developing country. But it is that we see only aging politicians in the fore front, I do feel comfortable with this situation.

A : My dear friend you miss one important aspect. Now every man or woman of 18 or above has the right to vote. The number of these new voters surpasses the older voters. Their vote plays a decisive role in forming the government.

Y : I think that those who belittle the role of the youth miss the point. In the struggle for independence our young students given up their studies and jumped into the fray. In this way even freedom in India is due to the role of the youth.

B : Well friends, It is all right to emphasize the role of the youth but they needed guidance from committed old leaders. Mahatma Gandhi inspired the youth to participate in the struggle for freedom and the young who later held important position in the government.

X : By the way even now we have many promising young, men and women in the governments in states and in the centre. But the main portfolios are still held by very old leaders who can't lead anymore. They hold very fast onto the chain. Their decadent ideas are retrograde and cause hindrance in the smooth running of the government.

B : I was telling that governance is not easy. The young have to learn the tricks of the trade and the older leaders also have a role to play in politics.

Y : But this argument does not nullify the role of the youth. In fact the world always keeps changing. The old have to make way for the young in every field. Even in nature the rule applies. There will always be the young and the old and contribute to the progress of the country. The youth of today are the leaders of tomorrow. Hence they have an important role to play in politics.

Q. 6. (a) (iii) Multiparty system in context of Indian democracy.

Ans. X : Friends today Indian democracy is sick. The political parties are, in fact, small groups of disgruntled individuals. They did not get what they expected from the parent parties. I think the situation is harmful for our motherland.

A : Yes, I also share your concern to a large extent. But democracy has this inherent problem. Anybody in a democratic country fight elections. Even criminals, illiterate persons, eunuch can fight elections. I think we can't help.

Y : Sorry friends, I don't agree. In the various parties the voters are confused and can't elect the right persons. As a result no single party gets the required majority. The government forms of elected representatives is only a compromise government. There are diverging interests and the government can't function smoothly. It is bad.

B : But still the representatives represent the interest of their supporters and fight for them. What is wrong about it?

Y : Such fighting is of no use. No law can be passed and nothing happens. There are demands for separate states are provinces. This tendency harms the national interest.

X : That is what I feel. In India, as in England or America if there were only two big parties from which one could win and the other sit in opposition, that could be better.

A : But this does not seem likely. Most of the politicians are corrupt and power hungry and they do not think of the nation. They are always focussed on their own interest. Multiparty democracy is not good for India.

Q. 6. (a) (iv) Global Meltdown.

NB : Use, A, B, X and Y as mouthpieces.

Ans. Global Meltdown :

A : The world has been shaken by the global meltdown or economic recession. Many big concern have gone bankrupt. This is very frightening.

X : You are under estimating the situation. The situation is very serious. Big business houses are collapsing. Nothing is certain in the field of economics.

B : This meltdown is not unprecedented. In early twentieth century too it has happened. But, then the world economy recovered and things were fine.

Y : Yes things happened as you say but you can't deny that a large number of people and institutions suffered.

Q. 6. (b) Write an imaginative dialogue between two friends K and L on any one of the topics:

(i) Power sector in Haryana.

Ans. K : Mr. L don't you think that the power position in Haryana is not very healthy. As a result everybody is suffering. The situation is very bad when tube wells don't run for irrigation of crops. In summer season the heat is intolerable in the absence of power.

L : Yes, I agree. The successive governments have done little in this respect.

K : The government of JLD had promised free electricity to farmers but nothing was done. Then congress government also had power as the main issue in elections. But there has been no significant progress.

L : In summer and in winter, in short, round the year there have been un-announced power cuts. Industry can't function at its full capacity. Crores are lost. In peak demand time the government is said to have purchased electricity from power surplus states at a very high rate and made power available for only particular schedules. It was insufficient, the suffering continued.

K : The governments should have proper planning but there is perhaps no serious action and the shortage continues to bug the consumers.

L : India is a country where some states have surplus power and in others there is chronic shortage. There were rumours of governments intention of establishing a national power grid for utilization of the surplus in the deficiency states. But the plans did not materialize.

X : The inherent problem of red-tapism in a democracy and then in ever increasing population the supply can't keep pace with the demand.

An imaginative advance planning is necessary if the shortage of power is to be met.

Q. 6. (b) (ii) Agricultural Depression in India.

Ans. K : Haryana and Punjab are often termed as the granaries of India. But there is something wrong and Haryana does not produce as much grain as expected. It is worrying me.

L : Yes, I too have thought about it. But nothing happens without a cause. And there are causes for this depression. Insufficient monsoon and deficiency of irrigation is the biggest cause.

K : Agreed. But farmers need electricity which is not supplied at the right time and in right quantity. Successive governments have tried to increase power production level nothing much was done. There is faulty planning in the power sector.

L : Power shortage is a universal problem. The demand and supply are never in stop with each other.

K : Urbanization is gobbling up agricultural land. The new generation from farmers is not interested in agricultural. Hence agricultural depression is natural.

L : Then who is responsible to set things right? I feel the population increase, the ad hocism of the government, the indifference of farmers, power shortage etc. are the main reasons for the agricultural depression.

K : The people should raise their voice against this situation so that the people responsible for this state of affairs wake up and remedy the deteriorating situation.

Q. 6. (b) (iii) Gender Discrimination.

Ans. L : A few days back there was a report in a national English Daily. The report contained figures that showed that the ratio between male and female child has improved. More girls are now preserved. The female foetus is allowed to be born and see the light of the day.

K : It is well said. But the gender bias has existed since God knows when. In Indian sub-continent there is always partiality towards male child.

L : The social practices and the culture in India are responsible. I think, Dowry system among Indians is one of the culprits. For the parents of the girl, finding a suitable match is a big problem. Even after the daughters marriage, the demand for dowry keeps pestering the bride and her parents.

K : I think parents in most cases consider a girl more as a liability than an asset. All the expenditure on her bringing up and education is a burden to them.

L : There has been gender discrimination since old times. Man being physically stronger than woman has always dominated her. This biological superiority has continued till the modern age, especially in jobs where physical strength matters.

K : But Mr. L in fields where intelligence is required. Woman candidate have surpassed the man candidates. This is a healthy trend and should continue.

L : OK. But apparently it is the awakening among women that has helped them and changed the trend. Even in police and army more and more women are employed these days.

K : Yes, I agree. The society at large and the government should promote this trend and the gender discrimination should be removed.

Q. 7. (a) Discuss the mechanism of an RO purifier or a simple village water well.

Ans. RO : It is reverse osmosis. It works on electricity. The mechanism passes current through water. Gradually the total salt dissolution is removed. The process also removes bacteria and other impurities. When the dissolution of salt and other substances are not permitted to remain suspended in the water, it is purified. Most other water filters work either without electricity or with electricity but gradually their purifying capability becomes less efficient. The old candle type filters become useless as the candles which are made of porous material become choked and have to be changed frequently. But RO is safer and needs little maintenance. Water constitutes a major part of our body fluid. It can cause many diseases. But RO purified water eliminates many diseases.

Village Water Well : Water well is very ancient. Human race needs water all the year round and close to the habitation. Water well served the purpose well. A big hole is dug up in the ground. It is deep enough for the ground water to collect into it and then can be drawn out in buckets dangling at the end of a rope. The walls of the well are plastered with lime-concrete and need no maintenance for hundreds of years. At the four directions around big wells or to one side pulleys are fixed on two massive supports. This mechanism facilitates drawing water with ease. Water in wells is mostly free from harmful substances. But occasionally saltish or sulphuric substances are found dissolved in the water. If the amount of these substances is not too much the water is used for washing etc.

Q. 7. (b) Write in 10 steps the procedure for growing crop (of your choice).

Ans. Procedure for Growing Crops :

- (i) In the season, relevant to a particular crop the soil is prepared for the crop.
- (ii) Farmers use either animal pulled plough or tractors if the area of the field is large.
- (iii) After ploughing weeds etc. are removed and burnt and the ash adds to the fertility of the soil.
- (iv) Seed is scattered in the furrows either manually or through some mechanism.
- (v) After sometime the field is irrigated. Mostly tube wells are used if the land is dry.
- (vi) Usually fields are ploughed after monsoon or winter rain.
- (vii) The seed sprouts in due course. The farmers recognise the weeds. Hence, they are manually removed.
- (viii) The ground becomes hard and the porosity decreases. Hence, there is slight scraping of the soil.
- (ix) When there is need, the fields are irrigated.
- (x) In due course the crops are reared and are harvested.

OR

Q. 7. (b) Write in 10 steps the way of making 'chappatis'.

Ans. The way of making chappatis :

- (i) Grain, mostly wheat and other cereals are ground and made into flour.
- (ii) The flour is passed through a sieve to remove anything hard or grainy.
- (iii) The required quantity of flour is taken out into a shallow tray.
- (iv) Water is poured into it a little of a time and the flour is kneaded into a rubbery paste, hard enough to be rolled into chappatis.
- (v) The stove is lighted and an iron plate with a heavy bottom is placed on the stove.

- (vi) The plate is heated to a certain degree.
- (vii) The kneaded floor is than made into small balls.
- (viii) The balls are shaped like chappatis with a rolling pin.
- (ix) They are covered with dry floor and put onto the hot plate.
- (x) They are baked and chappatis are ready.

Q. 8. Answer two of three questions given :

(i) Comment on the discussion on nuclear disarmament in an era of international terrorism. Has the world learnt a lesson from the devastation that took place in Hiroshima and Nagasaki?

Ans. Nuclear disarmament discussion has been going on for a long time. Years ago the USA and Russia had agreed to destroy some of their nuclear weapons. But the fear and distrust among nations continues and prompts them to keep themselves prepared for war. The nuclear powers try to dissuade non-nuclear countries from going nuclear. But themselves they keep adding to their stock. But in recent times the threat of terrorism has shaken the world. World soon or a war between two countries may or may not take place but terrorism has become a more deadly threat than a war. The two bombs dropped on Hiroshima and Nagasaki had some rationality behind them. If the allied forces had not used the bombs the second world war would not have ended. Prisons of war and civilians in Japan and in the allied countries were suffering. Now most countries won't go to war for expanding their territory. But terrorists are eager to lay their hands on atomic weapons to destroy the non-Islamic fundamentalist countries, the so called Kapiers. The risk is the biggest in Afghanistan and Pakistan. Pakistan has nuclear weapons and the current government is very unstable. If Pakistani arsenals are taken over by the Islamic terrorists there will be total destruction of the major part of the world. It is very essential that nuclear disarmament discussion is held without losing any time to prevent nuclear weapons from going into the hands of the terrorists.

Q. 8. (ii) Experiment and Experience both add to human knowledge. Discuss the value of experiment and experience to human knowledge bank in light of the essay by W.R. Niblett.

Ans. Some people believe that knowledge is impersonal and objective. Such knowledge is open to logic and has demonstrable proof. This knowledge is gained from analytical mind and the experiments are carried out in laboratories. They keep adding to our knowledge. But experience is different. All new experience is unique. A fact found from experiment remains the same but experience is different. All new experience is unique. A fact found from experience differs from the first every time we repeat it. Visiting the same city at different time gives different experience. Music and literature can be experimented with. They have to be experienced. One is subjective and the experimenter is emotionally involved in it. Hence, experience too adds to our knowledge. In this way both experiment and experience add to human knowledge. In final analysis experiencing can become experimenting if facts are learnt. Similarly, an experimental is also an experienced. Life will be in complete without either of them.

Q. 8. (iii) Write a note on any one 'future' technology, not mentioned by Theodore J. Gordon, which we have begun to use.

Ans. Theodore J. Gordon has taken into account almost every aspect of technology and has dealt with all the technologies available till the time of the essay was written. The essay was written in around 1970. It is now 2010 and that puts a gap of about 40 years between the writing of the essay and the present time. He considered genetic engineering, aqua-culture, solar energy, electricity, geothermal energy and fusions. He has also dealt with space and its uses. Then artificial intelligence and psychology

too have been taken account of. The only technology, Gordon has not taken note of is nano-technology. It is already much advanced and can be used in numerous ways. It is available in the shape of nano tubes as the basic blocks. Material taking very little space can be manufactured. It will be very strong and will replace building material in industry. It is likely to be cheaper and pollution free. It will also replace a major part of applications which electronics is at present employing. Nano technology is also likely to bring about a revolution in the field of medicine. Nano-robots suitable to be injected into human blood stream and muscles. The robots will destroy harmful cells in blood and tissue. There are other numerous uses where nano-technology can be used.

Q. 9. Write explanatory answers to both the questions given below :

(i) How can we create a better 'human environment' especially in the Indian context?

Ans. India is a developing country along with other Asian, African and South American countries. Population explosion, poverty and poor life standard are problems. There is insufficient scientific and technological development in India. The poor live near jungles. They cut trees and poach animals. Poverty and need are the worst pollutions of human environment. The poor need development and means of livelihood. The developed countries tell us to stop pollution. They don't want to share their technology for us to eradicate poverty. They consume food and other resources much more than the people in poor countries. Indira Gandhi tells the world that there were basic differences between the developed and developing countries. In India it is essential to remove poverty and improve living standard of the poor who live near jungles and in slums. They should be provided with alternative means of livelihood. Then only they can be asked not to cut trees and kill animals. India is not as much developed industrially as the western countries. Hence it is unrealistic to stop establishing industry to stop pollution. War is the greatest pollutant. The western countries should share responsibility for preventing war and make sacrifice for the sake of the poor countries.

Q. 9. (ii) Write whether Gordon made a correct assessment of The Year 2050 in his futuristic essay. Are there any problems and solutions that he failed to mention or could not predict? Comment from your knowledge of current scenario i.e., 2009-10.

Ans. The essay was written in 1970 i.e., about 40 years ago. Naturally, there have been developments in this about half a century. But broadly speaking Gordon has taken into account all the situations. But one thing that he has not mentioned is the development of nuclear power which is used more for manufacture of weapon than for human welfare. He expected nuclear energy for production of electricity not for making bombs.

As such he could not think of any solutions too. The countries of the world still have distrust among themselves. Gordon had no idea about the rise of terrorism a threat worse than the war. Every country is suffering at the hands of the terrorists. There is no effective solution to this threat yet. Every country first thinks of its own narrow interest and makes efforts to defend itself rather than work with each other. Gordon had no idea of this menace. Pollution is also a major problem Gordon also could not have a full idea of the dangerous proportions it would acquire. The perspective of the rich countries and the poor differ and they find it difficult to find a meeting point. All are concerned about the pollution but are divided about the measures to be taken against it. Ozone layer depletion also has not been shown an adequate concern by Gordon. In fact the deterioration has been much more than he could think of. Still we must admit that Gordon has covered almost every aspect commendably.