

**B. Tech. 1st Sem. Examination, Dec- 2009**  
**Essentials of Communication (HUM-101-FI)**

*Time Allowed : Three Hours*

*Maximum Marks : 100*

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

1. (a) Give synonyms of four words given- (i) adept, (ii) reliable, (iii) peril, (iv) obsolete  
(b) Give antonyms of four words given - (i) advance, (ii) broad, (iii) loose, (iv) transient  
(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.  
(d) Transcribe (IPA form) four given words - (i) calm, (ii) measure, (iii) knot, (iv) shade  
(e) Write in 4 lines the working of an RO system or a tube well.
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  
(b) Do as directed for any five :  
(i) Give the 'verb' and 'adjective' for the word collection.  
(ii) Give the 'verb' and 'adjective' for the word haste.  
(iii) Give the 'noun' and 'adjective' for the word sense.  
(iv) Give the 'noun' and 'adjective' for the word harm.  
(v) Differentiate between 'momentary' and 'momentous'.
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  
(b) Synthesize the sentences as per directions given in the brackets -  
(i) Bruno is my faithful dog. I love him. (join using phrase in opposition)  
(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)
4. (a) Write a long note on (i) vowels in phonetics, (ii) consonants in phonetics  
(b) Transcribe any 10 of the given 15 words -  
(i) car (ii) doctor (iii) measure (iv) sweet (v) wet  
(vi) palm (vi) touch (viii) hand (ix) wind (x) charm  
(xi) five (xii) ink (xiii) hot (xiv) debt (xv) bun
5. (a) Paraphrase the following words and suggest a suitable title for it-

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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?

- (b) In the light of above poem comment: Whether knowledge necessarily mean wisdom and breadth of mind. Also review the poem to emphasize its relevens to our education system *i.e.* does our education system emphasize practice?
6. (a) Write a group discussion on any one :
- (i) Contribution of engineers to the progress of India
  - (ii) Role of youth in politics
  - (iii) Muliparty system in context of Indian democracy.
  - (iv) Global melt down
- (b) Write an imaginative dialogue between two friends K and L on any one of the topics:
- (i) Power sector in Haryana
  - (ii) Agricultural depression in India
  - (iii) Gender discrimination
7. (a) Discuss the mechanism of RO purifire or a simple village water well.
- (b) Write in ten steps the procedure for growing crops (for your choice)
- OR
- Write in ten steps the way of making Chappatis'.
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 Heroshima and Nagasaki?
  - (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.
  - (iii) Write a note on any one 'future technology', not mentioned by Theodore J. Gordon which have begun to use.
9. Write explanatory answers to both the questions given below-
- (i) How can be create a better 'Human environment' specially in the Indian context.
  - (ii) Write whether Gordon made a correct essessment 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.

## ANSWERS

1. (a) (i) expert (ii) dependable (iii) danger (iv) outdated
- (b) (i) back, retreat (ii) narrow (iii) tight (iv) permanent
- (c) (i) drought (ii) elicit (iii) eligible (iv) stationary
- (d) (i) /ka:m/ (ii) /me3a/ (iii) /not/ (iv) feid
- (e) **R.O. System** : Full form of R.O. is Reverse Osmosis. The R.O. system works on electricity. It removes harmful soluble salts, 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. A cavity is created by sucking out loose earth till water starts flow. Then a pump is installed which works with electricity.

2. (a) (i) subdivision (ii) superfast (iii) extraordinary  
(iv) communism (v) omnipresent (vi) solution  
(vii) picturesque (viii) fracture (ix) synthesize  
(x) update
2. (b) (i) Verb - collect, Adjective- Collected  
(ii) Verb - hasten, Adjective - hasty  
(iii) Noun - sense and sensitivity, Adjective - sensitive and sensible  
(iv) Noun - harm, Adjective - harmful  
(v) Momentary : The pain was only momentary  
Momentous : The Republic Day celebration are a momentous occasion in the history of India.
3. (a) (i) He became the captain (ii) I like to play  
(iii) I like singing (iv) He gave me a pen (v) Birds fly
3. (b) (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) It is certain that he will be late. (v) Having won the match they went home.

4. (a) **Vowels in Phonetics** : Vowels are speech sounds. In the production of vowel sounds air comes out from the lungs in a continuous stream through the mouth, and the vocal cords vibrate to produce voice. There is no closure of the air passage and no narrowing that would cause friction. Vowels are therefore articulated with a stricture of open approximation. The note produced by the larynx is modified by the shapes of the resonating cavities of the pharynx, the mouth and the nose. These in turn depend on the positions of the soft palate, the tongue and the lips. The soft palate is raised for oral vowels; all English vowels are oral.

**Classification of Vowels** : (a) Front, (b) Back, or (c) Central according to the position of the tongue raised.

(a) Front Vowels : i:, i, ɪ, e, æ, ʌ

(b) Back Vowels : a, ɒ, ɔ:, u, ʊ

(c) 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 - o and 5. lips closed i:, a:,: and u: are also known as pure vowels.

**Consonants** : Consonants are one of the main category of the phonetic alphabet. They may be voiced or unvoiced. They are more stable. As consonants involve very rapid changes they more difficult to synthesize properly.

The IPA uses three features to characterize consonants:

- phonation - whether a consonant is voiced or not
- manner of articulation - how the consonant is produced
- place of articulation - where the consonant is produced

In production of consonants are 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.

4. (b) (i) car - /kɑ:/ (ii) doctor - /dɒktə/  
(iii) measure - /mɛʒə/  
(iv) wet - /wet/ (v) sweet - /swi:t/  
(vi) palm - /pɑ:m/ (vii) palm - /pɑ:m/  
(viii) touch - /tʃʊ/ (viii) hand - /hænd/

(ix) fine - /faɪv/  
(xi) wind - /wind/  
(xiii) hot - /hɒt/  
(xv) bun - /bʌn/

(x) charm - /tʃɑ:m/  
(xii) ink - /ɪnk/  
(xiv) debt - /det/

5. (a) 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.

5. (b) Knowledge without translating 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 come 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.

6. (a) (i) A : Sure 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.

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

6. (a) (ii) **Role of youth in Politics :**

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 votes 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 the centre. but the main portfolios are still held by very old leaders who can't lead anymore.

B : I was telling that governance is not easy. The young have to learn the tricks of governance.

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.

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

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 votes are confused and can't elect the right persons. As a result no single party gets the required majority. The government forms 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 of no use. Now 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.

**6. (a) (iv) 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.

**6. (b) (i) Power sector in Haryana :**

K : Mr. L don't you think that the power position in Haryana is not very good. 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.

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, there have been un-announced power cuts. Industry can't function at its full capacity. Crores are lost.

K : The government 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.

**6. (b) (ii) Agricultural Depression in India :**

K : Haryana and Punjab are often termed as the grainaries 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.

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 of farmers is not interested in agricultural. Hence agricultural depression is natural.

L : Then who is responsible to set things right?

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.

**6. (b) (iii) Gender Discrimination :**

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 female child.

L : The social practices and the culture in India are responsible. I think, Dowry system among Indians is one of the culprits.

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.

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.



7. RO : It is reverse osmosis. It works on electricity. The mechanism involves, when current passes through water, gradually the harmful soluble salt remove. The process also removes bacteria and other impurities. RO system is safer and needs little maintenance.

**Village Water Well** : Water wells are very ancient. Human race need water all through the year. Water well served the purpose well. A big hole ins 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.

7. (b) **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) Usually fields are ploughed after monsoon or winter rain.
- (iv) After ploughing weeds etc. are removed and burnt and the ash adds to the fertility of the soil.
- (v) Seed is scattered in the furrows either manually or through some mechanism.
- (vi) After sometime the field is irrigated. Mostly tube wells are used if the land is dry.
- (vii) The seed sprouts in due course. The farmers recognise the weeds. hence, they are manually removed.
- (viii) The ground becomes hard and hence, there is slight scrapping of the soil.
- (ix) When there is need, the fields are irrigated.
- (x) In due course the crops are read and are harvested.

OR

**The way of making chappatis :**

- (i) Grain, mostly wheat and other creals 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 little of a time and the floor is kneaded into a rubbery paste, hard enough to be rolled into chappatis.
- (v) The stove is lighted and an iron plate on the stove.
- (vi) The plate is heated to a certain degree.
- (vii) The kneaded flour 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.

8. (i) 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 become a more deadly threat than a war. The two bombs dropped on Hiroshima and Nagasaki has some rationality behind them. If the died 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.

8. (ii) Some people believe that knowledge is impersonal and objective. Such knowledge is open 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. 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.
8. (iii) 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 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.
9. (i) 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. 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.
9. (ii) 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.