

Level: Bachelor

Semester – Fall

Year : 2012

Programme: BE

Full Marks: 100

Course: Communication Technique

Pass Marks: 45

Time : 3hrs.

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

*Attempt all the questions.*

1. Read the following passage and answer the given questions:

15

We have invented different types of things for our comfort. The first man-made plastic was created by Alexander Parkes, who publicly demonstrated it at 1862 Great International Exhibition in London. All the inventions have both pros and cons. If you look at the use of plastic, it is huge. Cons are way higher than pros in the case of use of plastics. A Plastic bottle takes almost one thousand years to decompose, and even during decomposition it releases toxic chemicals such as bisphenol A, styrene trimer and others. Bisphenol A is a chemical that damages the reproductive system of animals. So, every piece of plastic produced and which is not recycled still exists.

Plastic waste kills about 100,000 marine creatures every year. Most of them mistake plastic bags for food and therefore are dying. Once the plastic kills an animal it again comes back to environment to kill more animals. The estimated figure suggests that 14 billion pounds of plastic waste is dumped in the ocean every year. So, are we really that selfish to let 100,000 marine animals die every year for our comfort and remain addictive to the use of plastics? Because of our ignorance about plastic, it could cause greater harm to the whole human race by causing different types of diseases and also the environmental impact of plastic, which is still unknown. Ethylene oxide, xylene and benzene are some of the chemical toxins present in plastic, which have miserable effects on the environment. This is an awareness point about the relationship we have with the plastic. We really can't beat the plastic as it takes so long to decompose, and while it's in use it also leads to different types of diseases such as cancer because of the use of substances like benzene and vinyl chloride.

The energy consumed in the life cycle of one plastic bag is estimated to be equivalent to 13.8 m.l. of crude oil, when gas, oil and coal are used

b) Write a job application for the position of Electrical & Electronics Engineer addressing to the MD of Himal Steel Company, Balaju, Kathmandu in response to the advertisement published in *The Rising Nepal*. Also make a neat sketch of your CV/Resume on your own. 8

5. a) Make a descriptive writing on **any one** of the following technical topics: 8

i. Cell Phone ii. Photocopy Machine iii. Microscope

b) How do you conduct the meeting in the formal end? Enumerate the points and explain in brief. 7

5. Imagine that a beautiful village lies across the river in your place, clearly the opposite side of the small equally beautiful town where there are lots of facilities, like good schools, hospitals etc. What makes the people of the village feel deprived of all those is nothing but a small bridge of any kind over the river as to connect between the two. Now write a proposal to be submitted in your Village Development Committee for the construction of the bridge, anticipating both of their prosperous future. (Include: Introduction, Hypothesis, Statement of problem, Methodology, Management plan/Expenditure, Conclusion & References) 15

a) Transform the following sentences as indicated in the brackets. 5

i) Although Jack failed in exam, he won the football match. (Compound)

ii) Tell me what your strategy is. (Simple)

iii) The master scolded the servant for his disobedience. (Complex)

iv) The letter having been written was posted. (Complex)

v) I have lost the watch which my mother gave me. (Compound)

b) Change the following sentences according to the variety labels given in the brackets. 5

i) One cannot succeed unless one tries hard. (AmE)

ii) I wonder if you would mind typing the letter for me. (Familiar)

iii) I know the person to whom you spoke. (Informal)

iv) We will discuss this issue in a next meeting. (Impersonal)

v) He couldn't attend the exam as he is ill. (Common Core)



to produce plastic bags, they emit dangerous greenhouse gases. Large amounts of plastic and dump in landfill also cause a significant source of greenhouse gases. As plastic is a non-biodegradable substance composed of toxic chemicals. It pollutes earth, air and water.

So, could it really be the worst invention? Time will probably have better answers for this. I think it is not who will eliminate who, but finding the right solution is the answer. We should look for alternative to plastic bags. The best alternative would be to use it over and over again and again. What I meant about recycling is that it would be the best alternative to plastic, so at the end of the day it may not be required to produce any more plastic substance.

#### Questions:

- i) What serious effect does the plastic cause, during its decomposition?
- ii) Why is the point of an awareness very sensitive about the use of plastic??
- iii) How has plastic been the main cause of the pollution of environment, specially of earth, air and water?
- iv) To what extent can we reduce the use of plastic? How?
- v) Write the main idea of the passage with a suitable title.

Answer **any three** of the following questions in short:

- a) How do you make the foundation of a road? (Road Foundation)
- b) "The pursuit of knowledge may become harmful unless it is combined with wisdom". Argue. (Knowledge and Wisdom)
- c) How can science be misused? Explain with examples with reference to the text. (The Use & Misuse of Science)
- d) Do you really think Mrs. Mallard died of the over joy that killed her? Bring out the feminist as well as the psychological interpretation of the text. (The Story of an Hour)

- a) Suppose that you are the Principal of any engineering college of Pokhara University. It has been reported to you that the recently bought some electrical equipments have not been properly maintained causing their malfunctioning. Now, write a memo to the "Head of the Department" of electrical engineering requesting the person in authority to find the one who has been negligent of his/her responsibility.

- b) As a responsible coordinator (Engineering) of Pokhara University, write a letter of inquiry to the Manager of Hotel Pokhara Grand to book it for a couple of days. You have the information that Dr.

Shreedhar T ohani, a Professor of English, is coming Pokhara to hold a two-day workshop (27th & 28th June) on **Technical Writing** as a visiting faculty of School of Engineering, PU. (Inquire: cost, accommodation, conference hall, presentation tools etc.)

4. a) Prepare notes after reading the following passage.

A black hole is a region of space from which nothing, not even light, can escape. The theory of general relativity predicts that a sufficiently compact mass will deform space time to form a black hole. Around a black hole there is a mathematically defined surface called an event horizon that marks the point of no return. It is called "black" because it absorbs all the light that hits the horizon, reflecting nothing, just like a perfect black body in thermodynamics. Quantum mechanics predicts that black holes emit radiation like a black body with a finite temperature. This temperature is inversely proportional to the mass of the black hole, making it difficult to observe this radiation for black holes of stellar mass or greater.

Objects whose gravity field is too strong for light to escape were first considered in the 18th century by John Michel and Pierre-Simon Laplace. The first modern solution of general relativity containing a black hole was found by Karl Schwarzschild in 1916, although its interpretation as a region of space from which nothing can escape was not fully appreciated for another four decades. Long considered a mathematical curiosity, it was during the 1960s that theoretical work showed black holes were a generic prediction of general relativity. The discovery of neutron stars sparked interest in gravitationally collapsed compact objects as a possible astrophysical reality.

Black holes of stellar mass are expected to form when heavy stars collapse in a supernova at the end of their life cycle. After a black hole has formed it can continue to grow by absorbing mass from its surroundings. By absorbing other stars and merging with other black holes, super massive black holes of millions of solar masses may be formed.

Despite its invisible interior, the presence of a black hole can be inferred through its interaction with the other matter. Astronomers have identified numerous stellar black hole candidates in binary systems, by studying their interaction with their companion stars. There is growing consensus that super massive black holes exist in the centers of most galaxies. In particular, there is strong evidence of a black hole of more than 4 million solar masses at the center of our Milky Way.