(কৃষ্ণাৰ প্ৰৱেশ)

কৃষ্ণা ঃ পেহী, কি কৰি আছা ইয়াত? ভিতৰত তোমাৰ মোবাইল বাজি আছে।

পূৰৱী ঃ হয় নেকি? (প্ৰস্থান)

কৃষ্ণা ঃ (আৰতিলৈ চাই) তোমাৰচোন এতিয়ালৈকে ঘৰ সাৰায়ে হোৱা নাই? মোৰ যে বান্ধৱী এজনী আহিব বুলি কৈছিলোঁ পাহৰিলা নেকি? পেহী অহাৰ লগে লগেই মেলত লাগি গ'লা। নিজৰ কোনোবা অহাহেঁতেন কৰিলেহেঁতেন কামবোৰ। মোৰ বান্ধৱী আহিব যে, কিয় কৰিব কামবোৰ।

আৰতি ঃ মাজনী, (মূৰত হাত বুলাই দিয়ে। কৃষ্ণাই মুখ বিকটায়) তেনেকৈনো কিয় ভাবা তুমি? তুমি চিন্তা নকৰিবা। এতিয়াই মই সকলোবোৰ কাম কৰি শেষ কৰিম। (খৰধৰকৈ বাৰাণ্ডাখন সাৰি প্ৰস্থান।)

(কৃষ্ণাই চকী এখনত বহি মোবাইল চাই থাকে। হঠাতে কাৰোবাৰে ফোন কৰে।)

কৃষ্ণা ঃ হেল্লো, ৰাহুল। (শুনি) মোৰ খবৰ ভালেই। তোমাৰ পিছে কি হ'ল? ইমান মিছকল দি আছোঁ, কিয় ফোন কৰা নাই। (শুনি) ইচ্ কিহত বিজী আছিলা তুমি জানো নহয়। বাৰু বাৰু বাদ দিয়া সেইবোৰ। আজি আমাৰ ঘৰলৈ জোনালী আহিব। তাইৰ লগত আহি যোৱানা। (অলপ শুনি) নাহোঁ বুলিনো কিয় কৈছা? এসপ্তাহ হ'ল তোমাক নেদেখা। (শুনি) অঃ। মোৰ মা নহয়, মাহীমা আৰু সেইবোৰ কিয় চিন্তা কৰিছা তুমি? মই সেইবোৰ একো কেয়াৰ নকৰোঁ। এতিয়া ৰাখোঁ। বাই।

(মেনকাৰ প্ৰৱেশ)

মেনকা ঃ কাৰৈ ফোন কৰিছিলা অ' কৃষ্ণা?

কৃষ্ণা ঃ আৰে বৰমা! খবৰ-চবৰ নিদিয়াকৈ আহিলা যে? ফোন এটা কৰিওতো আহিব পাৰা। আহা। বহা, বহা। (দুয়ো বহে)

মেনকা ঃ ইচ্ মই কিবা ফোন নকৰাকৈ আছোঁনে? যেতিয়াই ফোন কৰোঁ তেতিয়াইচোন সেই শূৰ্পনখাজনীয়েহে ফোন ধৰে।

কৃষ্ণা ঃ (খঙেৰে) কি?

মেনকা ঃ কৃষ্ণা, মইচোন তোমাক কেতিয়াবাই কৈছিলোঁ, তোমাৰ বস্তু নুচুবলৈ তাইক কৈ দিবা। তুমি মোৰ কথামতে কাম কৰা নাই নেকি? সিদিনা ৰাহুলে ফোন কৰোঁতেও সেই যখিনীজনীয়ে ফোন ধৰিছে। তোমাৰ ওপৰত যে ৰাহুলৰ কিমান অভিমান হৈ আছে!

কৃষ্ণা ঃ কি? (ভাবে) সেই কাৰণে আজি ৰাহুলে মোৰ লগত ভালদৰে কথা নাপাতিলে। (ভাব সলনি কৰি) (খঙত) কিন্তু সেইজনীকতো মই কেতিয়াবাই কৈছিলোঁ মোৰ বস্তু নুচুবলৈ। কথা এটা ক'লে কাণত নোসোমায়। ইস্, মোক আকৌ মাজনী মাজনী বুলি মৰম যাচিবলৈ আহে। ৰ'বা বৰমা, সেইজনীক আজি মই এতিয়াই ...

(অতি খঙেৰে যাব খোজে। মেনকাই কৃষ্ণাক ধৰি ৰাখে।)

মেনকা ঃ নাই নাই কৃষ্ণা। তুমি এতিয়া একো নক'বা। কৃষ্ণা, অকণমান ধৈর্য ধৰাচোন।

কৃষ্ণা ঃ নহয় বৰমা, সদায় সদায় একেটা কথাকে কৈ থাকিব নোৱাৰি নহয়। মোৰ কোনো এটা কথাকেই নুশুনে। ইস্, মোৰ মা হ'বলৈ আহে তাই! মা হ'বলৈ আহে! তুমি সকলোকে কৈ দিবা বৰমা, সেই ডাইনীজনী মোৰ মা হ'ব নোৱাৰে। (খঙত, লগতে কান্দি) যিগৰাকী তিৰোতাই মোৰ দেউতাৰ মৃত্যু মাতি আনিলে, তাই কেতিয়াও মোৰ মা হ'ব নোৱাৰে।

(কৃষ্ণাই অলপ সময় উচুপি থাকে)

মেনকা ঃ কৃষ্ণা, এইবোৰ সমস্যাৰ সমাধান এনেদৰে কৰিব নোৱাৰি। তোমাৰ ঘৰৰ এই শূৰ্পনখাজনীৰ কাৰণে অলপ বেলেগ ব্যৱস্থা ল'ব লাগিব। তুমি চিন্তা নকৰিবা কৃষ্ণা। সকলো মোৰ ওপৰত এৰি দিয়া।

(মেনকাৰ কথা শুনি কৃষ্ণাই মৌনভাৱে তলমুৰকৈ বহি থাকে)

(জোনালীৰ প্ৰৱেশ)

জোনালী ঃ কৃষ্ণা, কি কৰি আছা?

কৃষ্ণা ঃ মহাৰাণীলৈ ৰৈ ৰৈ ব'ৰ্ হৈ গ'লোঁ। কিয় ইমান দেৰি কৰিলা?

জোনালী ঃ বাটতে আকৌ তোমাৰ মহাৰাজ (লাহেকৈ) আইমিন, ৰাহুলে দেৰি কৰালে।

কৃষ্ণা ঃ বাৰু! বাৰু! বহা এতিয়া। মোৰ বৰমাৰ লগতো চিনাকি হৈ লোৱা। বৰমা, এয়া মোৰ বান্ধৱী জোনালী। আৰু জোনালী, এয়া মোৰ একেবাৰে

নিজৰ বৰমা। ৰাহুলইঁতৰ ঘৰৰ ওচৰতেই ঘৰ। বৰমা হ'ব পাৰে; কিন্তু মোৰ ফ্ৰেইণ্ডৰ নিচিনা।

মেনকা : বহা মাজনী। কৃষ্ণা, বান্ধৱী অহাৰ খবৰটো ভিতৰলৈ পঠোৱা আকৌ।

কৃষ্ণা : (চিএনৰি) পেহী, মোৰ বান্ধৱী আহি গ'ল। আহা, চিনাকি হোৱাহি।

মেনকা : পেহীয়েৰো আহিছে নেকি?

কৃষ্ণা : অ' বৰমা, কালি আবেলি আহিছে। পেহাই থৈ গৈছে। (ভিতৰলৈ চাই) পেহী, সেইজনীক চাহৰ ব্যৱস্থা কৰিবলৈ দিয়া।

জোনালী : কৃষ্ণা, তোমালোকৰ ঘৰত কাম কৰা মানুহ ৰাখিছা নেকি?

কৃষ্ণা : নাইতো। কিয় সুধিলা?

জোনালী : নহয় মানে, সেইজনী বুলি ক'লা যে...

মেনকা : সেইজনী এইৰ মাহীমাক আইজনী। মানুহ নহয়, যেন ডাইনীহে। এই ছোৱালীজনীক অকণমান সময়ো ঘৰখনত শান্তিৰে থাকিব নিদিয়ে।

(পূৰৱীৰ প্ৰৱেশ)

পূৰৱী : কৃষ্ণা, বান্ধৱীক বাহিৰতে বহুৱাই থৈছা যে?

কৃষ্ণা : নহয়, মানে মই বৰমাৰ লগত কথা কৈ বহি আছিলোঁ কাৰণে ইয়াতেই বহিবলৈ দিলোঁ।

পূৰৱী : অ', কি নাম তোমাৰ?

জোনালী : জোনালী।

(আৰতি সোমাই আহে)

আৰতি : মাজনী, ভিতৰলৈ ব'লা চাহ দিছোঁ। (জোনালীলৈ চাই) ব'লা মাজনী। বাইদেউ, আপুনি আকৌ কেতিয়া আহিলে?

মেনকা : তেনেকৈ সুধিলি যে? কিয়, আহিব নালাগিছিল নেকি?

আৰতি : নহয় বাইদেউ ...

মেনকা : কি নহয়? তোৰ মনৰ কথা মই নাজানো বুলি ভাবিছ নেকি? সব বুজোঁ, বুজিছ! সব বুজোঁ।

পূৰৱী : কি বুজা তুমি ডাঙৰ বৌ? মিছা-মিছি কথাতে কাজিয়াৰ সৃষ্টি নকৰিবাচোন।

কৃষ্ণা : (বিৰক্তিত) হ'ব দিয়া পেহী। বৰমা, হ'ব আৰু। (মাকক কয়) চাহ ইয়ালৈকে লৈ আহিবা যোৱা।

আৰতি : ঠিক আছে মাজনী। (প্ৰস্থান)

পূৰৱী : ৰ'বা, ময়ো বৌৰ লগত চাহখিনি ইয়ালৈ আনি দিওঁ।

কৃষ্ণা : পেহী, বহাচোন। চাহখিনি ইয়ালৈ আনোতেই দুজন মানুহ লাগে নেকি?

(আৰতিয়ে চাৰিওজনৰ কাৰণে চাহ আনি দিয়ে)

আৰতি : খোৱা মাজনী। খাওক বাইদেউ। (প্ৰস্থান) (সকলোৱে চাহ খায়)

জোনালী : পেহীদেউ, খুৰীমাৰ ঘৰ ক'ত?

পূৰৱী : কিয়? এইখনেইতো বৌৰ ঘৰ।

জোনালী : নহয়, মানে মাক-দেউতাকৰ ঘৰ।

পূৰৱী : বৌৰ কোনো নাই জোনালী। এবাৰ এটি এক্সিডেণ্টত বৌৰ মাক-দেউতাক আৰু একমাত্ৰ ককায়েকৰ মৃত্যু হৈছিল। বৌইঁতৰ মাটিখিনিও সম্পৰ্কীয় ৰৰদেউতাকে ষড়যন্ত্ৰ কৰি কাঢ়ি নিছিল। তাৰ পিছতেই বৌ দাদাৰে বিয়া হৈ আহিছিল।

মেনকা : কিনো ইতিহাস আৰম্ভ কৰিলি অ'? কৃষ্ণা, ব'লা ভিতৰলৈ যাওঁ।

কৃষ্ণা : অ' ব'লা বৰমা। জোনালী, ব'লা ভিতৰলৈ যাওঁ।

জোনালী : তোমালোক যোৱাচোন। মই অলপ বাহিৰতে বহোঁ।

কৃষ্ণা : ঠিক আছে। আহা বৰমা।

(কৃষ্ণাই কাপ-প্লেটখিনি লৈ যায়। মেনকাও ওলাই যায়।)

জোনালী : কোৱা পেহীদেউ, বিয়াৰ পিছত কি হ'ল?

পূৰৱী : বিয়াৰ পিছত এদিন এটা এক্সিডেণ্টত দাদাৰ মৃত্যু হ'ল। কৃষ্ণা তেতিয়া একেবাৰেই সৰু। আচলতে কৃষ্ণাৰ মাকৰ মৃত্যুৰ পিছত কৃষ্ণাক চোৱা-চিতা কৰিবলৈ কোনো নথকা বাবেই দাদাই বৌক বিয়া কৰাইছিল।

জোনালী : ৰ'বা, ৰ'বা পেহী। খুৰীমাৰ গাঁওখনৰ নাম কি আছিল?

পূৰৱী : কৃষ্ণনগৰ।

জোনালী : কৃষ্ণনগৰ। পেহী, খুৰীদেউৰ নাম আৰতি নেকি?

পূৰৱী : অ', তুমি তেওঁক চিনি পোৱা?

জোনালী : পাওঁ পেহীদেউ। তেওঁ মোৰ আপোন বাইদেউ। যিজন ৰৰদেউতাকে তেওঁৰ দেউতাকৰ মাটি-বাৰী কাঢ়ি নিছিল, সেইজন ৰৰদেউতাকৰে ছোৱালী মই।

পূৰৱী : কি?

জোনালী : হয় পেহীদেউ। বাইদেউৰ বিয়াৰ সময়ত মই বহুত

সৰু আছিলোঁ। সেইবাবে মোৰ কোনো কথা মনত নাছিল। কিন্তু এদিন মায়ে মোক সকলোবোৰ কথা কৈছিল। মায়ে দেউতাৰ এই অন্যায় কাৰ্যবোৰ সহ্য কৰিব পৰা নাছিল। কিন্তু মাৰ কোনো উপায়ো নাছিল। জানে পেহীদেউ, যিদিনাৰপৰা মই মাৰ মুখত বাইদেউৰ কথা শুনিছিলোঁ তেতিয়াৰপৰাই মোৰ বহুত মন গৈ আছিল তাইক লগ পাবলৈ।

পূৰৱী ঃ আৰু সেইকাৰণেই আজি লগ পাই গ'লা। ৰ'বা, মই নবৌক মাতি দিছোঁ। (চিঞৰি) নবৌ, এইফালে আহাচোন।

আৰতি ঃ (ভিতৰৰপৰা) গৈছোঁ ৰ'বা।

জোনালী ঃ পেহীদেউ, মই মাৰপৰা শুনামতেতো বাইদেউ বহুত শান্ত আৰু সহনশীল ছোৱালী আছিল।

পূৰৱী ঃ এতিয়াও নবৌ তেনেকুৱাই জোনালী।

জোনালী ঃ তেনেহ'লে বৰমা আৰু কৃষ্ণাই কিয় ...

পূৰৱী ঃ সিহঁতৰ কথা আৰু নক'বা জোনালী। নাজানো ইমান ভাল মানুহজনীক সিহঁতে কিয় বেয়া পায়।

(আৰতিৰ প্ৰৱেশ)

আৰতি ঃ কিয় মাতিছিলা পূৰৱী?

পূৰৱী ঃ এটা ডাঙৰ কথাৰ কাৰণে মাতিছোঁ নবৌ।

আৰতি ঃ ডাঙৰ কথা?

পূৰৱী ঃ অ', আগতে বহি লোৱাচোন।

আৰতি ঃ ঠিকে আছে। (তিনিওজনীয়ে বহে)

পূৰৱী ঃ এতিয়া কৃষ্ণাৰ বান্ধৱীক এবাৰ ভালদৰে চোৱা, চিনি পাইছা নে নাই?

আৰতি ঃ মানে?

পূৰৱী ঃ মানে আৰু কি? চাবলৈ কৈছোঁ চোৱা আকৌ।

(জোনালীয়ে উঠি আহি আৰতিৰ সন্মুখত আঁঠুকাঢ়ি বহে।)

জোনালী ঃ চোৱা বাইদেউ, চিনি পাইছা? মই তোমাৰ ঘনশ্যাম বৰদেউতাৰ ছোৱালী জোনালী।

আৰতি ঃ কি? (থিয় হৈ জোনালীক সাৱটি ধৰে) তুমি জোনালী? ইমান ডাঙৰ হ'লা তুমি? বৰমা ভালে আছেনে?

জোনালী ঃ আছে বাইদেউ।

(মেজত এৰি থৈ যোৱা কৃষ্ণাৰ মোবাইল বাজি উঠে।)

পূৰৱী ঃ নবৌ, ফোনটো ৰিচিভ কৰা।

আৰতি ঃ (ৰিচিভ কৰে) হেল্লো, কোনে কৈছে? (শুনি) হয়, আছে। (আকৌ শুনি) মই কৃষ্ণাৰ মাক। ৰ'ব মাতি দিছোঁ। (ভিতৰলৈ চাই মাতে) মাজনী, মাজনী, এইফালে আহাচোন।

(কৃষ্ণাৰ প্ৰৱেশ)

কৃষ্ণা ঃ কি হ'ল? ইমানকৈ চিঞৰি আছা যে?

আৰতি ঃ মাজনী, তোমাৰ ফোন...

কৃষ্ণা ঃ (খঙত) তুমি আকৌ মোৰ ফোন ৰিচিভ কৰিছা? (মোবাইলটো লৈ) হেল্লো (অলপ শুনি) অলপ পিছত কৰিবা। (ফোন কাটি দিয়ে) (খঙেৰে মাকক কয়) তুমি কথা ক'লে গান গোৱা বুলি ভাবা নেকি? একেটা কথাকে কিমানবাৰ ক'ব লাগে তোমাক? বাৰে বাৰে কৈছোঁ মোৰ বস্তু নুচুবা। তাৰ পিছতো আকৌ একেই।

পূৰৱী ঃ কৃষ্ণা, তুমি নবৌক কিয় তেনেকৈ কৈছা?

কৃষ্ণা ঃ তুমি নুবুজা পেহী। মাথোঁ মই বুজোঁ, কিমান অশান্তি দিছে মোক এই মানুহজনীয়ে। কথা এটা এবাৰ ক'লে নহয় কিয়? মোৰ বস্তু নুচুবা বুলি তোমাক কিমান বাৰ কৈছোঁ মই?

আৰতি ঃ মোৰ ভুল হৈ গ'ল মাজনী।

কৃষ্ণা ঃ ইস্, ভুল হৈ গ'ল। এতিয়া ভুল হৈ গ'ল বুলি ক'লেই হ'ল? মোবাইল যদি হাতেৰে চুবলৈ ইমানেই মন, নিজে এটা কিনি ল'লেই হ'ল।

পূৰৱী ঃ কৃষ্ণা, মনে মনে থাকা।

কৃষ্ণা ঃ পেহী, তুমি মোক বেছিকৈ উত্তেজিত নকৰিবা। তুমি মোক ক্ৰিয় বুজিবলৈ চেষ্টা নকৰা? সঁচাকৈ কৈছোঁ, এই মানুহজনীৰ ছাঁটোকে মই সহ্য কৰিব নোৱাৰোঁ। তেওঁ ইয়াৰপৰা, মোৰ ঘৰৰপৰা সোনকালে গুচি যোৱাই মংগল পেহী। নহ'লে হয় তেওঁৰ, নহয় মোৰ কিবা এটা হ'ব।

আৰতি ঃ (কান্দি কান্দি) মাজনী, তেনেকৈ নক'বা। মই ক'লে যাম মাজনী? মোক তুমি বুজিবলৈ চেষ্টা কৰা। মই তোমাৰ মা মাজনী। মোক মা বুলি আদৰি লোৱা। তোমাৰ অবিহনে যে মোৰ কোনো নাই। মই একেবাৰে অকলশৰীয়া। মোক বুজিবলৈ চেষ্টা কৰা মাজনী।

(মেনকাৰ প্ৰৱেশ)

মেনকা : কিহৰ হুলস্থুলহে ইমান? কি হৈছে?

কৃষ্ণা : (মাকক কয়) চোৱা, বেছি চিঞৰ-বাখৰ নকৰিবা। কান্দি কান্দি মোৰ হৃদয় গলাব নোৱাৰা। ই কেতিয়াবাই গোট মাৰিছে। (প্ৰস্থান)

মেনকা : তোৰ কি হৈছে অ'? ছোৱালীজনীক অকণমান সময়ো ঘৰখনত শান্তিৰে থাকিব নিদিবি নেকি? চকুপানীৰ মাজতেই দিন গৈছে ছোৱালীজনীৰ। যি দেখিছোঁ, মাটিখিনি বিক্ৰী কৰি দি ছোৱালীজনীক আমাৰ ঘৰলৈকে লৈ যাব লাগিব।

পূৰবী : লৈ যাবা বৌ। মাটি-সম্পত্তিখিনিৰ লোভতে যে তুমি এইবোৰ কৰি আছা আমি ঠিকেই বুজিছোঁ।

মেনকা : কি? তয়ো দেখোন নবৌৱেৰক পাই বৰ ওফাইদং মাৰি কথা ক'ব পৰা হ'লি? কি কৰিলোঁ মই মাটি-বাৰীৰ লোভত? এই শংখিনীজনীয়ে যে কৃষ্ণাৰ জীৱনটো নষ্ট কৰি আছে, সেয়া দেখা নাপাৰ। (আৰতিয়ে কয়) অই, আৰু তোকো কৈ থ'লোঁ, কৃষ্ণাই যদি আৰু কিবা কথাত দুখ পাবলগা হয়, তেনেহ'লে মই তোক শুদাই নেৰোঁ। (প্ৰস্থান)

জোনালী : (দুখেৰে আৰতিক কয়) বাইদেউ, তুমি আমাৰ ঘৰলৈ ব'লা বাইদেউ।

আৰতি : নালাগে জোনালী। মই এনেকৈয়ে থাকিব পাৰিম।

জোনালী : নহয় বাইদেউ। তুমি ইয়াত থাকিব নোৱাৰা।

আৰতি : মোক জোৰ নকৰিবা জোনালী। মই ইয়াত থাকিবই লাগিব।

পূৰবী : জোনালীয়ে ঠিকেই কৈছে বৌ। ইয়াত এনেকৈ থকাতকৈ তুমি জোনালীহঁতৰ ঘৰলৈ যোৱাই ভাল হ'ব।

আৰতি : নহয় পূৰবী। বিয়াৰ পিছতে ককায়েৰাই কৃষ্ণাৰ সকলো দায়িত্ব মোৰ হাতত এৰি দিছিল। এতিয়া ককায়েৰা নাই যদিও মই সেই দায়িত্ব পালন কৰিবই লাগিব। মোৰ বিশ্বাস আছে, এদিন হ'লেও মাজনীয়ে মোক মা বুলি মাতিব।

(ভিতৰৰপৰা কৃষ্ণাই চিঞৰি মাতে— পেহী, জোনালী, এইফালে আহাচোন।)

আৰতি : তোমালোকক মাজনীয়ে মাতি আছে।

পূৰবী : মাতক ৰ'বা।

জোনালী : কৃষ্ণা যে এনেকুৱা ছোৱালী মই সপোনতো ভবা নাছিলোঁ।

কৃষ্ণা : (ভিতৰৰপৰা) পেহী, সেইজনীৰ চকুপানী মচি দিব নালাগে। এইফালে আহা।

পূৰবী : (খঙেৰে কৃষ্ণা বুলি মাতি প্ৰস্থান)

(জোনালীয়েও পূৰবীৰ পিছে পিছে ওলাই যায়।)

(আৰতিয়ে অলপ সময় সিহঁত যোৱাৰ ফালে চাই ৰয়।)

আৰতি : হে ভগৱান, মোক কিয় ইমান শাস্তি দিছা প্ৰভু? কিয়? (হুকহুকাই কান্দে)

(পূৰবীৰ প্ৰৱেশ)

পূৰবী : বৌ, তুমি এতিয়াও কান্দি আছা? (আৰতিক উঠাই দিয়ে। উঠা বৌ। নাকান্দিবা। ব'লা, ভিতৰলৈ ব'লা।

(আৰতি আৰু পূৰবীৰ প্ৰস্থান, কৃষ্ণা আৰু জোনালীৰ প্ৰৱেশ)

কৃষ্ণা : উস্ ৰাম, অহাৰপৰা এতিয়াহে মুকলিকৈ কথা পাতিব পালোঁ আমি। কি যে ঘটি থাকে ঘৰখনত! বাৰু বাৰু, বাদ দিয়া সেইবোৰ। কিবা যে বিশেষ কথা আছে বুলি কৈছিলা, কি কথানো?

জোনালী : কথা মানে, বিশেষ একো নহয়। ৰাছলে তোমালৈ এখন চিঠি দি পঠাইছে।

কৃষ্ণা : হয় নেকি? মহাৰাজৰ বা আকৌ কিয় চিঠি লিখিব লগা হ'ল! দিয়া দিয়া।

জোনালী : (চিঠিখন দিয়ে) লোৱা।

(কৃষ্ণাই চিঠিখন খোলে)

জোনালী : তুমি চিঠি পঢ়া। মই ভিতৰলৈ যাওঁ।

কৃষ্ণা : এই বহা, বহা, ক'লৈ যোৱা?

জোনালী : তেনেহ'লে চিঠিখন মোকো দেখুৱাব লাগিব।

কৃষ্ণা : নেদেখুৱাওঁ বুলি ক'লোঁ নেকি? ৰ'বা মই পঢ়িছোঁ।

(চিঠি পঢ়ে)

কৃষ্ণা, মৰম গ্ৰহণ কৰিবা।... তুমি চাগে' ভাবিছা, চিঠিখন কিয় লিখিলোঁ? ফোনতেইতো ক'ব পাৰিলোঁহেঁতেন যি ক'বলগা আছিল? কৃষ্ণা, মই তোমাক অনুৰোধ কৰিছোঁ, তুমি তোমাৰ স্বভাৱ সলনি কৰিবলৈ চেষ্টা কৰা। আৰু যদি নোৱাৰা, মোক পাহৰি যাবা। বাই।

কৃষ্ণা : (দুখত) এইবোৰ কি লিখিছে জোনালী? মোক কোনেও বুজিবলৈ চেষ্টা নকৰে। মই তাক বহুত

ভালপাওঁ জোনালী।

জোনালী ঃ তোমাকতো সি ভাল নাপাওঁ বুলি কোৱা নাই। শুনা কৃষ্ণা, তোমাক হয়তো আজিলৈকে কোনেও কোৱা নাছিল, তুমি যে তোমাৰ মাক তেনেকুৱা ব্যৱহাৰ কৰি ভুল কৰি আছা? আজি ৰাহুলে ক'লে। এতিয়া ময়ো কওঁ —কথাবোৰ তুমি ভাবি চোৱাচোন।

কৃষ্ণা ঃ জোনালী, পেহীয়ে মোক এই বিষয়ে বহুবাৰ কৈছে। আৰু মইতো ...। আচলতে কি জানা জোনালী? মাত্ৰ এটা কথাৰ বাবে মই তাইৰ ফালে চাবই নোৱাৰোঁ। সেই কথাটো মোৰ মনৰপৰা কেতিয়াও আঁতৰি নাযায়। (অলপ ৰৈ) জোনালী, তুমি ভিতৰলৈ যোৱাচোন। বৰমাক মই মাতিছোঁ বুলি ক'বা।

জোনালী ঃ ঠিক আছে। (প্ৰস্থান)

(কৃষ্ণাই অলপ সময় কিবা চিন্তা কৰি থাকে। অলপ পিছত মেনকাৰ প্ৰৱেশ।)

মেনকা ঃ কৃষ্ণা, মোক মাতিছিলা?

কৃষ্ণা ঃ অ' বৰমা, তোমাক মই এটা কথা সুধিম। তুমি কিন্তু মোক ক'ব লাগিব।

মেনকা ঃ কি কথা কৃষ্ণা?

কৃষ্ণা ঃ বৰমা, তুমি প্ৰায়েই কোৱা যে মোৰ দেউতাৰ মৃত্যুৰ কাৰণ হ'ল মোৰ মাহীমা। কিন্তু তুমি মোক এবাৰো কোৱা নাই কেনেকৈ দেউতাৰ মৃত্যু হ'ল। তুমি কোৱা বৰমা।

মেনকা ঃ কৃষ্ণা, তুমি এইবোৰ কথা জানিব নালাগে।

কৃষ্ণা ঃ নহয় বৰমা, তুমি মোক ক'ব লাগিব। অতি দুখৰ হ'লেও মই শুনিম। তুমি কোৱা।

মেনকা ঃ তোমাৰ দেউতাৰৰ এটা এক্সিডেণ্টত মৃত্যু হৈছিল।

কৃষ্ণা ঃ কৈ যোৱা বৰমা। তাৰ কাৰণে মা কেনেকৈ দোষী হ'ল?

মেনকা ঃ সেই অমংগলীয়ানীজনীৰ সৈতে প্ৰথমবাৰ তাইৰ বৰদেউতাকৰ ঘৰলৈ যাওঁতেই এক্সিডেণ্ট হৈ দেউতাৰৰ মৃত্যু হ'ল। দেখিছা কৃষ্ণা, তাই কিমান শংখিনী। তাইৰ মাক-দেউতাকো এক্সিডেণ্ট হৈ মৰিছিল।

কৃষ্ণা ঃ (মনতে ভাবি) কিন্তু! এয়াতো অন্ধবিশ্বাস। বৰমা, তুমি ইমান সৰু কথা এটা ইমান ডাঙৰকৈ মোৰ মনত কিয় সোমাই দিলা?

(জোনালীৰ প্ৰৱেশ)

জোনালী ঃ বৰমা, আপোনাক পেহীয়ে বিচাৰি আছে।

মেনকা ঃ হয় নেকি? (প্ৰস্থান)

জোনালী ঃ কি হ'ল কৃষ্ণা? মন মাৰি আছা যে?

কৃষ্ণা ঃ জোনালী, মই এতিয়াহে উপলব্ধি কৰিছোঁ, বৰমাৰ কথাবোৰ শুনি মই কিমান ডাঙৰ ভুল কৰি আছিলোঁ। মই বুজা নাই, কিয় বৰমাই মাৰ সম্পৰ্কে মোৰ মনত ইমান বেয়া ধাৰণা এটা সোমাই দিছিল। মোৰ মন গৈছে, এতিয়াই যেন মই মাক মা বুলি চিঞৰি মাতিম।

জোনালী ঃ মাতিবলৈ মন গৈছে যদি মাতি দিয়া আকৌ।

কৃষ্ণা ঃ নহয় জোনালী। আগতে মালৈ কিবা এটা উপহাৰ লৈ আহোঁ ব'লা। আজি প্ৰথমবাৰ মই মাক মা বুলি মাতিম।

জোনালী ঃ ব'লা তেনেহ'লে।

(যাব খোজে। এনেতে হাতত ঝাড়ু লৈ আৰতিৰ প্ৰৱেশ)

কৃষ্ণা ঃ (আৰতিক কয়) আমি এঠাইৰপৰা আহোঁ।

জোনালী ঃ যাওঁ বাইদেউ।

আৰতি ঃ যোৱা।

(কৃষ্ণা, জোনালীৰ প্ৰস্থান। আৰতিয়ে ঘৰ সাৰে।)

(মেনকাৰ প্ৰৱেশ)

মেনকা ঃ অ'ই, শুকোৱা কাপোৰবোৰ যে চপাব লাগে দেখা নাই? তোৰ চকু দুটা আছে নে নাই?

আৰতি ঃ এই বাৰাণ্ডাখন সাৰি উঠি চপাওঁগৈ বাইদেউ।

মেনকা ঃ চুপ। বাহানা বনাব নালাগে। ছোৱালীজনীৰ কাপোৰখিনি আগতে চপাই থওঁতে তাইৰ হাতখন ক্ষয় যায়।

আৰতি ঃ বাইদেউ, মইতো নথওঁ বুলি কোৱা নাই।

মেনকা ঃ অ'ই, তই দেখোন দিনক দিনে এখোপ চৰি গৈছ? মোৰ লগত তৰ্ক নকৰিবি, কৈ দিছোঁ। কচোন, কিনো এনে ডাঙৰ কাম কৰিলি তই ৰাতিপুৱাৰপৰা? কাপোৰখিনি চপাবলৈ যে সময় নাপাৱ?

(আৰতিয়ে মনে মনে থিয় হৈ থাকে।)

মেনকা ঃ অ', এইবাৰ দেখোন এইজনী নিমাতী কইনা হ'ল? মুখৰ মাত কোনে কাঢ়ি নিলে এইবাৰ? কামৰ কথা সুধিলোঁতো।

(পুৰৰীৰ প্ৰৱেশ)

পূৰৱী ঃ বৌ, কি হৈছে? বকি আছা যে?

মেনকা ঃ কি? তই আকৌ মোকহে বকা দেখিলি? এই নবৌৱেৰজনীক মুখখন অলপ চন্তালিব ক'বি। মোৰ লগত তর্ক কৰিবলৈ আহে তাই! কেতিয়াবা মুখখন খুন্দিয়াই বেঁকা কৰি দিম।

পূৰৱী ঃ ৰ'বাচোন বৌ। ইমান চিঞৰিবলৈ কিহে পাইছে তোমাক?

মেনকা ঃ কি কিহে পাইছে? মই তোক একো কোৱা নাই নহয়। মোৰ কথাৰ ওপৰত তই মাত নামাতিবি। এই শংখিনী, গজমুৰি বিধৱাজনীৰ সপক্ষে মোৰ আগত ওকালতি নকৰিবি।

পূৰৱী ঃ কি ওকালতি কৰিলোঁ মই? সঁচা কথাটো কৈছোঁ। ইমান শান্ত মানুহজনীক তোমালোকে শান্তিৰে থাকিব নিদিয়া কিয়? তুমিয়েই প্রতিবাৰে আহিয়ে কাজিয়াৰ সৃষ্টি কৰা। কি উদ্দেশ্যৰে ইয়ালৈ আহা তুমি?

মেনকা ঃ হ'ব হ'ব, মোৰ উদ্দেশ্যৰ কথা বুজিব নালাগে। আগতে সেইজনীৰ উদ্দেশ্যৰ কথা বুজি ল। গিৰিয়েক মৰাৰ পিছত কি অধিকাৰ আছে তাইৰ ইয়াত থকাৰ? কোন আছে তাইৰ ইয়াত? (কথাৰ মাজতে কৃষ্ণা আৰু জোনালী সোমাই আহে। কৃষ্ণাই মাকলৈ এথোপা ফুল লৈ আহে। আহিয়ে দুয়োজনীয়ে 'কি হৈছে' বুলি সোধে। কিন্তু সিহঁতৰ কথাৰ কোনেও উত্তৰ নিদিয়ে। মেনকাই বকিয়েই থাকে।)

মেনকা ঃ কৃষ্ণাই তাইক চকুপাৰি দেখিব নোৱাৰে। তথাপি কিয় তাই বাৰে বাৰে কৃষ্ণাৰ মাক হ'বলৈ যায়? ছোৱালীজনীৰ জীৱনটো নষ্ট কৰিম বুলি ভাবিছে নেকি তাই? শংখিনী, যখিনী, তই আহিয়েই গিৰিয়েৰক মাৰিলি। এতিয়া ছোৱালীজনীকো মাৰিবি নেকি?

আৰতি ঃ (খং আৰু তীব্র উত্তেজনাৰে 'বাইদেউ' বুলি চিঞৰি মেনকাক মাৰিবলৈ যায়।)

কৃষ্ণা ঃ তুমি বৰমাক মাৰিবলৈ হাত দাঙিছা?

পূৰৱী ঃ (আৰতিক ধৰি) বৌ, বৌ, ৰ'বাচোন।

মেনকা ঃ মাৰ, মাৰ। মাৰিবলৈ কৈছোঁ মই। হাজাৰ বাৰ ক'ম মই, কৃষ্ণাৰ দেউতাকৰ মৃত্যুৰ বাবে তয়েই দায়ী। অমংগলীয়ানী। তয়েই মাৰিলি গিৰিয়েৰক।

(মেনকাৰ কথা সহ্য কৰিব নোৱাৰি আৰতীয়ে 'আৰু নক'ব বৌ' বুলি কৈ পৰি যায়।)

পূৰৱী ঃ (আৰতিক ধৰি) বৌ, বৌ। (আৰতিক ভালকৈ চাই 'বৌ' বুলি জোৰেৰে কান্দে)

(আৰতী পৰাৰ লগে লগে কৃষ্ণা আৰু জোনালীও দৌৰি আহে। মেনকা একে ঠাইতে থিয় হৈ থাকে।)

কৃষ্ণা ঃ মা, মা।

পূৰৱী ঃ (কান্দি) বৌৱে আৰু কেতিয়াও নামাতে কৃষ্ণা।

কৃষ্ণা ঃ তুমি এয়া কি কৈছা পেহী? মায়ে মোক মাতিব লাগিব। উঠা মা, উঠা।

পূৰৱী ঃ কৃষ্ণা, ধৈর্য ধৰাচোন অলপ।

জোনালী ঃ নিজক কণ্ট্রোল কৰা কৃষ্ণা।

কৃষ্ণা ঃ মই যে কোনোদিনে মাক মা বুলি নামাতিলোঁ পেহী। আজি মই মাৰ বাবে এয়া উপহাৰ লৈ আহিছিলোঁ। কিন্তু... (আকৌ মাকৰ ওচৰলৈ যায়) মা, মোক ক্ষমা কৰিবা মা। মই তোমাক বহুত কষ্ট দিলোঁ।

জোনালী ঃ তোমাৰ কথাবোৰ বাইদেৱে শুনি আছে কৃষ্ণা।

কৃষ্ণা ঃ নহয়। তুমি সঁচাকৈ শুনিব লাগিব। উঠা মা। মোক আকৌ এবাৰ মাজনী বুলি মাতা। পেহী, বৰমাক যাবলৈ কোৱা মোৰ চকুৰ আগৰপৰা। মই চাব নিবিচাৰোঁ। কিয়? কিয় এনেকুৱা কৰিলে বৰমায়ে? (সকলোৱে কান্দি থাকে। লাহে লাহে মেনকাই কৃষ্ণাৰ ওচৰলৈ আহে।

মেনকা ঃ কৃষ্ণা, মই বহুত ভুল কৰিলোঁ। ধন-সম্পত্তিৰ লোভত মই তোমাক বহুত মিছা কথা ক'লোঁ। কিন্তু মই বুজাই নাছিলোঁ, সকলো পাপৰে যে এদিন প্রায়শ্চিত্ত হয়। তুমি মোক ক্ষমা কৰা কৃষ্ণা।

(আৰতিৰ ওচৰলৈ গৈ) মোক ক্ষমা কৰা আৰতি।

(আৰতিৰ ভৰি চুব খোজে।)

কৃষ্ণা ঃ নুচুবা। আঁতৰি যোৱা তুমি। তোমাৰ অপবিত্র হাতেৰে মোৰ মাৰ পৱিত্র দেহটো কলুষিত নকৰিবা। মা, মৌলৈ এবাৰ চোৱা মা। তোমাৰ ইমান দিনৰ আশা মই পূৰণ কৰিছোঁ। তুমি উঠা মা। মোক আকৌ এবাৰ মাজনী বুলি মাতা। উঠা মা, মা ...

(মাকৰ গাৰ ওপৰত পৰি যায়।)

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ENGLISH SECTION :

BRICK INDUSTRY AND ITS IMPACTS

Surabhi Rabha
T.D.C. 1st Sem. (Arts)

Introduction to Brick Industry :

- What is a Brick?
- Brick is a hard material made from mud in the shake of a rectangle. It is used for construction of houses, buildings, bridge etc.
- How it is made?
- At first a plot of land is being dug to a certain depth say 5 to 6 feet. The mud is made soft and sticky by mixing water with the mud and is put into rectangular boxes by applying soft sands. It is then kept in the sun more than a week and is burnt with the help of coal and fire wood. Bricks became hard like stones and they become red in color after burning. Sal trees act as the best fire wood for burning bricks.

As the constructional work today have increased, the demand for bricks have also increased. At present brick factories are mostly common in the rural areas.

Brick Industry and its Positive Impacts :

There are not much positive impacts of bricks industries.

1. Brick industry provides material for construction works. E g. Houses, buildings, bridge etc.
2. As brick factories require large number of labours, it provides wages for many people. E.g. there are wood cutters, diggers, brick makers, brick transporters etc.

The wood cutters would go to the nearby forested areas and would collect fire wood for burning bricks. The diggers would dig mud in a plot of land and soften the mud and makes it sticky by applying water. When the mud becomes ready the brick makers would use the rectangular boxes for making bricks.

When the brick is burnt and becomes hard completely, the brick transporters would transport the bricks to other places. They also bring coal for the brick factories.

Thus there are many working divisions under which many local and people coming from outside get a chance to work.

A SKETCH MAP OF LANGKONA, DAKHILIPARA AND KHAT KHATI VILLAGE AREA
SHOWING LOCATION OF BRICK FACTORIES

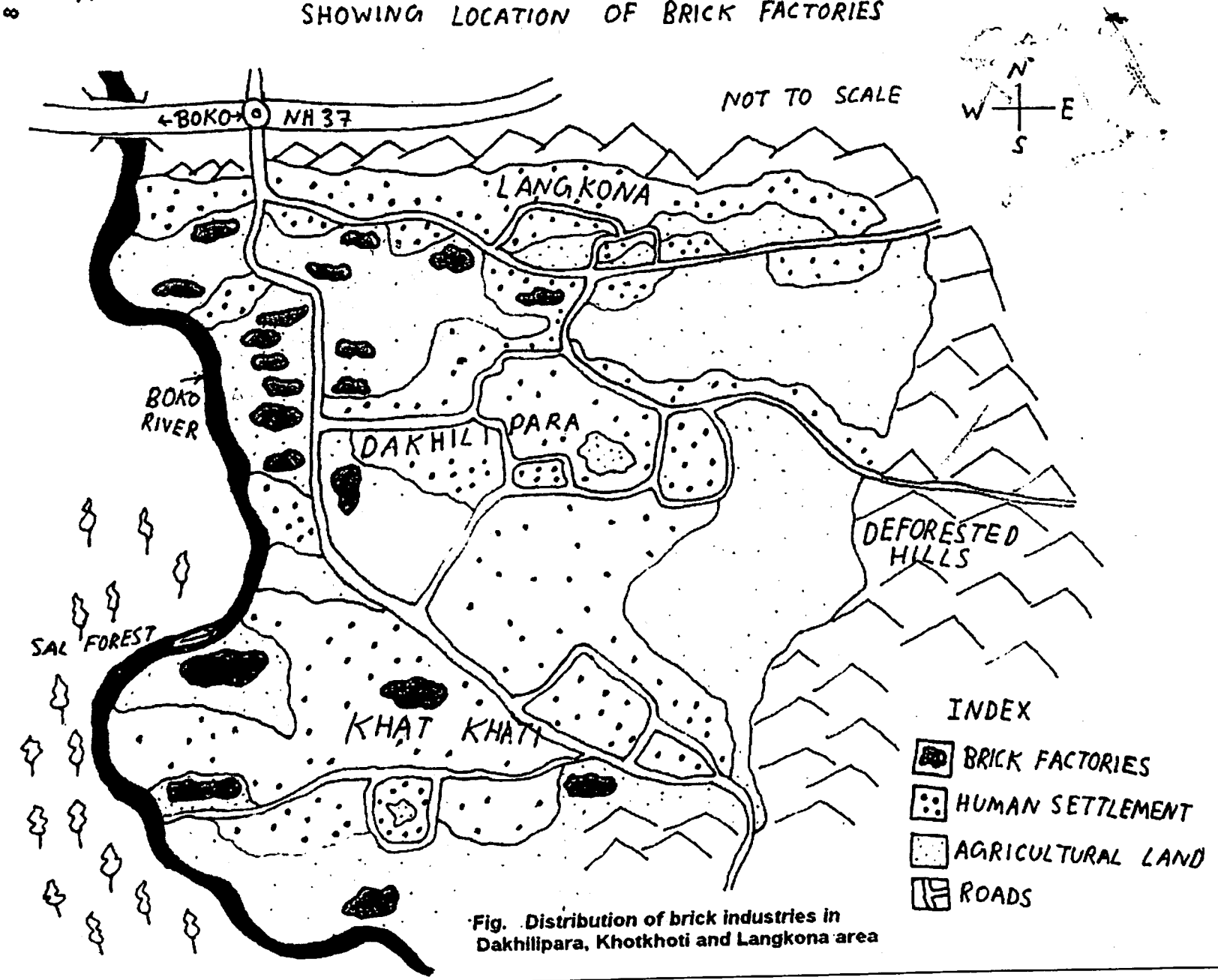


Fig. Distribution of brick industries in Dakhilipara, Khotkhoti and Langkona area

Brick Industry and its Negative Impacts :

Negative impact of brick industry is much more than the positive impact.

1. Firstly, there is environmental pollution. The use of coal and fire wood for burning of bricks give out large amount of smoke and some harmful gases along with foul smell, which pollutes the environment of that area.
2. Secondly, brick industry leads to deforestations in that area. There is large scale cutting down of forest for fire wood for the brick industries. As a result forested areas are disappearing very quickly. Sal trees are mostly targeted for its good burning quality and the bricks also become of the good quality if it is burnt by sal fire wood. So, there is large destruction of sal forests.
3. Thirdly, brick industry affects human health. People working in brick industries or people living in nearby areas of brick industries are mostly seen suffering from viral diseases like cold, cough and some other diseases like typhoid, asthma, eye problem, headach etc.
4. Fourthly, brick industry can also affect plants and animals. The plants growing near the brick factories are disturbed by the smokes and gases and ultimately they die. The animals such as cows and goats sometimes eat the pieces of plastics used for covering bricks or sometimes drink water from those areas and are seen suffering from diseases and ultimately they die.
5. Fifthly, brick industries also create problem in agricultural practices if they are located near agricultured areas. When there is heavy rainfall the soil near the brick factories gets eroded and comes down to the digging areas making the agricultural lands infertile. Even if the farmers keep the water by some technique for the crops, along with the fertilizers used there the water would percolate down to the digging areas brick factories. Some farmers cannot expect good production.
6. Sixthly, the bricks industries spoil quality of the soil. The soil of brick industrial areas become so hard that no plants grow on that soil and those soil do not get mixed up with other soil. Soil of brick industry would stay unproductive for ever, where no cultivation is suitable.

Brick Industries, with Special Reference to some of the Village Areas of Boko :

To know a little bit clearly we can take an example of a small area around Boko, where most brick factories are found– Dakhilipara, Langkona and Khatkhati are three villages situated South of Boko town in South Kamrup district are mostly disturbed by brick industries. In this village areas brick factories are spread all over the Agricultural lands.

Transformation of Agricultural Land into Brick Factories :

It is believed that about 15 years ago some brick industrialists came to these village areas and tested the soil quality of these areas. They found it to be suitable for making bricks. So, they took some fallow lands from some villagers and started making bricks. They took these lands per bigha for about 20 to 30 thousand rupees for 2 to 3 years. Gradually the farmers of these villages started giving their huge agricultural lands for making bricks by taking sum of money from the brick industrialists

Advantages Received by the Local People :

People of these areas receive certain advantages. They are listed below :

1. Bricks were available at a cheap price for the local people.
2. Local people got opportunity to work in the brick factories for their livelihood.
3. Transportation service were made possible with the arrival of the brick factories.

Disadvantages that Occurrd due to Brick Factories in this Areas (Dakhilipara, Langkona and KhatKhati) :

There are many disadvantages that occured in these areas. Some of them are listed below :

1. **Lose of agricultural land :** Most of the farmers of these villages gave their agricultural land to the brick factory owners by taking about Rs. 20,000 to 30,000 from the factory owners for about a time period of about three or four years. When ever these farmers face any difficulty, they would take again more money and thus the time for making bricks would go on increasing. The factory owners would dig and dig the same plot of land year after year and make it so deep that even in the driest months the water would stay in the digging places. So, the plot of land becomes unsuitable for agriculture. In this way there is lose of agricultural land in these areas.
2. **It creats problem for human health :** People of these areas are mostly affected by various kinds of diseases like typhoid, asthma, cough, cold, eye irritation, cancer, jaundice and other skin diseases. These diseases are believed to have occured due to the omission of huge amount of smoke and gases along with foul smell.
3. **Occurrence of ultimate death of plants and animals :** During the period of brick manufacturing, some of the plants like the bamboo, betel-nut trees and betel leaf plants are seen dying. The smoke of brick factories are believed to be the main cause of ultimate death of these plants in Dakhilipara, Langkona and Khatkhati village area. Animals like the cows and goats are also seen suffering from some kind of diseases after they are grazed near the brick factory areas, because pieces of plastics that are used for covering bricks use to lie here and there which are consumed by these animals.
4. **Rapid destruction of forested areas :** In the hills of these village areas there were once rich sal trees. As soon as the bricks factories increased in number, the wood cutters started cutting large amount of sal trees everyday and supplied to the brick factories. As a result of it at present, no "Sal" trees except the "Sal sapplings" are found in the hills and forested areas. The hills and forest areas of these villages have become almost barren.
5. **Damage to roads :** Though roads were prepared long ago due to mismanagement, they have been damaged. Trucks loaded with bricks from brick factories to and frows daily. As a result roads got damaged.
6. **Pollution of the environment :** Smoke and foul smells pollute the entire environment of the area. Moreover the waste materials of brick industries like pieces of plastics, coal pieces of bricks have spoilt the soil quality of the nearby agricultural areas in these village areas. The "Boko" river has also been polluted along with other waterbodies by the discharge of wast materials in these waterbodies in these village areas.

Conclusion :

Keeping in view the positive and negative impact of brick industries we can arrive at some solution. Some of them are listed below :

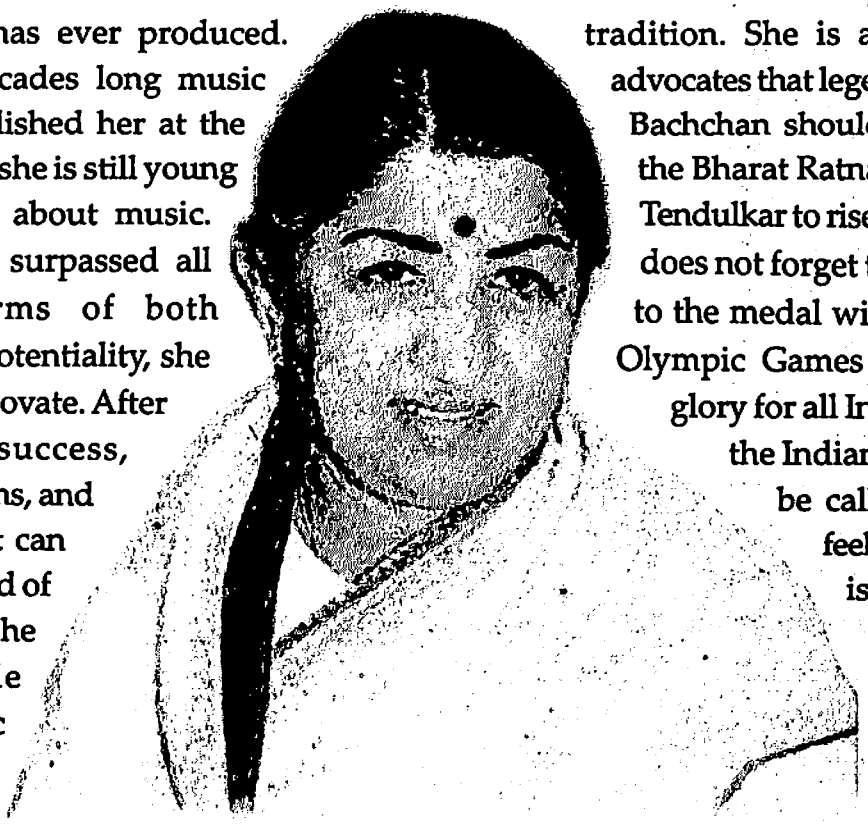
1. Brick industries should be located where there are no human settlements near it.
2. Paddy field should not be given for making bricks. Rather farmers should think for utilizing the land in other way.
3. Brick factories should not be allowed to open here and there and the factories should be minimized.
4. New trees should be planted in the deforested areas where huge numbers of trees have been cut down due to brick industries. ■

Melody-Queen

Lata Mangeshkar

Labnya Kumari
T.D.C 3rd year

Living legend Lata Mangeshkar turns 83 today. Lata Mangeshkar needs no introduction. Her voice is her identity. She is one of the most acclaimed artistes Indian Cinema has ever produced. After her six decades long music career that established her at the pinnacle of fame, she is still young and enthusiastic about music. Though she has surpassed all aspects in terms of both popularity and potentiality, she is still eager to innovate. After unbelievable success, endless felicitations, and achieving all that can be hardly dreamed of in a single life, she remains humble and believes music is her meditation. She humbly expresses her gratitude to her countrymen for loving her voice. She gives all credit to the Creator for what she is today. She is ever grateful to the composers, co-singers and music directors for this. She never stops praising the Indian actresses who projected the emotion of her voice on celluloid.



This is what has made her an all time great. This is what is unique about Lata Mangeshkar. She feels for music, Indin Cinema, the great treasure of Indian folkmusic, and encourages the newcomers to carry forward the great tradition. She is a great patron. She advocates that legendary actor Amitabh Bachchan should be conferred with the Bharat Ratna, encourages Sachin Tendulkar to rise and shine again, and does not forget to express her thanks to the medal winners at the London Olympic Games 2012, who brought glory for all Indians. She addresses the Indian soldiers and likes to be called their sister. Lata feels for every Indian. She is aware of her actual habitation; she dwells in every Indian's heart. She is desperate to do justice to the acclaim she has won. What can be more unique?

As fragrance for flower, tide for river, wave for sea, rhythm for life, emotions for heart, pain for creation– voice is the identity of an artiste. But in case of melodyqueen Lata Mangeshkar, it is different. Her voice is the God-gifted tune of India. This is her identity. Lata is that icon who proves how someone rises to the status of

a legend, how an individual becomes an institution, how one gets identified with the appeals and emotions of a whole nation. So, she is young in her eighties. It is estimated that she has sung more than 30,000 solo, duet and chorus-backed songs in 20 different languages from 1948 to 1987. Now, it must way over 40,000! This is really amazing.

Born on September 28, 1929 in Indore, Lata was introduced to music at a very young age, way back in 1945. The song *Dil mera toda* is cited as her breakthrough song. The period of the 1950s witnessed steady growth in her career. The Sixties made her the queen of playback singing. Her success and devotion made her the most powerful female personality in Indian Cinema. She virtually monopolised the music industry and became the first choice of all composers. In the late 1970s and the early 1980s, Lata Mangeshkar worked with the new generation music composers and did justice to every tune composed by them, and made them successful in the industry. In the year 1990, Lata established her own production house.

Lata Mangeshkar has been honoured with almost all awards, including India's highest civilian award, the Bharat Ratna. She is the second singer in the non-classical category after M.S. Subbulakshmi in India, to have received this prestigious award. She has received three national awards and eight Filmfare awards, after which she stopped accepting awards in order to promote new talents.

But what is unique about Lata Mangeshkar? Her potentiality as a singer needs no recognition. Music and Lata have become synonymous. No discussion about her musical genius can be complete. How can one pour the ocean into a vessel? So remarkable is the fact that someone 83 years old never ceases, nor even thinks of giving up. This means as an artiste she knows and believes from the heart that in the arena of art, the term 'end' exists nowhere. Art is evergreen, so how can artistes become weary? So Lata, despite the burden of age, occasionally still appears in the horizon of Indian music. She inspires the new generation artistes to be dynamic. She is always ready to lend her voice to the innovation made by today's music-composer. Ask A.R. Rahman, he will say that Lata has never discouraged him, nor did she give any excuse not to lend her voice to the tunes composed by him. In fact, it is Lata's voice that practically brought out the genius in A.R. Rahman and gave it the right focus. Though Lata does not sing much these days, but whenever the need arises, the composers knock at her door and Lata is always ready to be part of the unit that brings out art from the womb and gives it shape. In her career, Lata never hesitated to sing duets with others.

Lata has a fascination for folk tunes. Recently, *Samagra*, an album of Marathi folk songs, was released. Lata lent her voice to it. Lata is like the banyan tree in the music world of today's India. From her lofty status, she willingly comes down and stands by the emerging artistes. ■

THE RIVER BECKONS

U. C. Kar
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Robin returns to India after completing ten years of his studies abroad. He belongs to a traditional Assamese family and had spent his youthful days on the bank of the mighty Brahmaputra. He has visualized the River in different shapes. The Brahmaputra has a great appeal for him from the days of his childhood.

Robin used to visit the bank of the Brahmaputra frequently with Kavita. Both Robin and Kavita are intimate friends. On the bank of the river both would stand long and pay a look at the River and imagine a lot about life. Robin would philosophise on life and Kavita would add more mystery to his philosophical thinking connecting with the River.

As yet Robin and Kavita had not developed any sensual relation with each other though they had chances to spend many solitary moments together, sitting on the River's bank for hours and hours. The mighty River flowing still stood a silent testimony to their discussion on happy and unhappy moments, hopes and excitement etc.

Once while silently walking together on the bank of the River both Robin and Kavita paused at a point. Robin's mind was burdened with series of thoughts. Robin will have to leave for abroad to prosecute his higher studies in America. He will be far away from his dear River and will get from Kavita for a decade. This thought has made him more sensitive and sentimental about the River with which he has spent the substantial moments of his life. Suddenly there was a sprinkle on Robin's body and he became conscious. Kavita had thrown the River's water on him to break the silence.

'What are you thinking of?' Kavita asked Robin in a soft shrill. There occurred a sudden interruption in the ongoing thought process of Robin and he reacted saying, 'What do you think of the mighty Brahmaputra Kavita?' Kavita was not expecting such a peculiar question from Robin. Kavita became sure that all the while Robin was engrassed in the thought of the River. But she did not envy Robin for not paying due attention to her. She knows very well

Robin's deep love for nature and his special attachment with the Brahmaputra.

Robin was still in the mood of insisting on Kavita to know her reaction towards the River. It was rather a very difficult situation for Kavita to respond to Robin. Kavita has looked upon the River all these days as a source of pleasure, bathed in the River,

enjoyed its scenic beauty and has felt its better coolness while boating across the River. She just can't express her feelings in terms of words on the River.

Kavita was trying hard to say something on the River and found Robin was very eagerly waiting to get a reply from her. Being unable to answer Kavita put effort to divert Robin's attention to a different topic. But Robin was still waiting for Kavita's comment on the River. Kavita was all along trying to avoid Robin and escape to answer him on the River but Robin was firm to hear from Kavita about the River. The battle went on between the two friends over sometime till Kavita yielded to Robin in deciding to say something.

'Look Robin', Kavita continued, 'we have spent many many days on the bank of the Brahmaputra. We have discussed topic of different nature. But how tragically we have ignored the River that flows before our sight.' In a very soft voice Kavita asked Robin to say her something about the River, which she wants to hear hour and hour together without any irritation.

Robin reacted mildly and said to Kavita that the River is just a mystery for him. 'Take your own time and too take mine and we shall wait each other till my return from America to get our individual answer on the mighty River.'

After completing ten years of higher studies at abroad Rovin has comeback to his own place from America.

The picture of the Brahmaputra was very fresh in his memory as it was when he left ten years back. The sight of the rising Sun, setting Sun, fluttering of birds and the intense association of Kavita with him amidst all these scenes are yet burning at the back of his mind.

After touching his feet on his home ground Robin made a frantic search for Kavita. He found Kavita at her place. Lot of changes occur on Kavita during these decades. But Kavita keeps the question on the River alive in her mind to get a suitable answer. Kavita looked at Robin strangely. She watched his face carefully and was convinced that Robin a reputed Nuclear physicists is in the process of searching an answer on the mysterious River Brahmaputra.

Both the friends are jointly searching an answer on the River for last ten years being oriented from each other. Today they have met with each other. But the answer to their question is not yet found. Breaking the silence Robin asked– 'Kavita, would you please please give me your company to the bank of the River?' 'Oh yes, why not?'– Said Kavita excitingly.

Robin and Kavita went for a stroll to the River's bank. 'Did you ever visit the River's bank alone in my absence?' 'Once only', said Kavita. Kavita continued with a choking voice, 'Just to see how a group of scientist are experimenting on the surface of the mighty River for the explanation of hydro electricity.' 'There you are dear Kavita', interrupted Robin. The flow of the Brahmaputra has dried-up. The River is dying slowly.

'A great culture is dying with this mighty River.'

Yet the River Beckons with anguish to save it. ■

The ignited mind is the most powerful resource on earth

–Dr. A.P.J. Abdul Kalam

Summary of the thesis :
Flow of Non-newtonian fluids

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Newton (1687) proposed a linear relationship between the extra stress tensor and the strain rate tensor for isotropic viscous incompressible fluids. The freedom from the bondage of linearity of relationship between stress and strain rate tensors led to a great deal of creative work in non-Newtonian fluid flow theory. The solutions of problems of engineering interests in the flow of non-Newtonian fluids require that method be developed for studying the properties of such fluids in configurations other than the classical viscometric fluid flows. Many rheological models have been proposed to describe the mechanical behaviours of non-Newtonian materials but in this study, we have chosen the models of incompressible second-order fluid and Walters liquid (Model B') with short memories to investigate the flow behaviours in specific problems for different geometries. The thesis consists of six chapters.

In the first chapter, we have discussed the outline of various theories proposed to explain the non-linear effects such as normal stress effect, Merrington effect, Weissenberg effect etc., and their advantages and defects are given. A brief deductions of the constitutive equations of second-order fluid and Walters liquid (Model B') have been done. The equations of motion in cartesian, cylinderical polar and spherical polar coordinates, a brief review of the relevant literature and the motivation of the present work are given in last sections.

The rheometrical flow system has been discussed in the second chapter. Here, we have considered the flow of Walters liquid (Model B') between two infinite disks which are rotating with different angular velocities about different axes of rotation. The solution is obtained by expanding the velocity components in terms of a suitable small parameter when the inertia effects are also assumed to be small. The force on one of the disks has been calculated and it is observed that the two components of the force can be used to determine the visco-elastic parameter of the fluid.

In third chapter, flow of Walters liquid (Model B') through an annulus has been studied. The inner surface of the annulus is a smooth rigid cylinder while the outer surface is a flexible cylinder whose radius is varying with time as well as with axial distance. Perturbation technique has been employed to obtain the solution of the problem, taking variation in the outer surface as perturbation parameter. The boundary conditions of the outer surface are suitably amended with the use of Taylor's series expansion. The dimensionless shearing stress and volume rate of flow have been obtained at various sections of the annulus. The obtained results have been numerically worked out for different values of the elastico-viscous parameter with the combination of other flow parameters and the results are expressed in tabular forms.

Chapter four deals with the analysis of the laminar boundary layer along a flat plate in a non-Newtonian

second-order fluid in presence of a magnetic field acting perpendicular to the plate. The problem is solved by the application of steepest descent method used by Meksyn. The non-Newtonian effect on the component of velocity, which is parallel to the length of the plate and also on the displacement thickness are studied in details. The velocity component u as a function of h has been presented graphically for various values of non-Newtonian parameter.

In the chapter five, the steady two-dimensional free convection flow of a Walters fluid (Model B') in a vertical channel one of whose walls is wavy, has been investigated analytically. The governing equations of the fluid and the heat transfer have been solved subject to the relevant boundary conditions by assuming that the solution consists of two parts: a mean part and disturbance or perturbed part. To obtain the perturbed part of the solution, the long wave approximation has been used and to solve the mean part, a well-known approximation used by Ostrach has been utilised. The relevant flow and the heat transfer characteristics, namely the skin friction and the rate of heat transfer at both the walls have been discussed in details.

In the six chapters, the flow and heat transfer in an elastico-viscous fluid between two co-axial infinite porous rotating discs is considered for small cross flow Reynolds number. The discs are rotating with different angular velocities and the rate of injection of the fluid at one disc is different from the rate of suction at the other disc. The governing equations have been solved by perturbation method, taking cross flow Reynolds number as perturbation parameter. The analytical expressions for radial, transverse, axial velocity components and temperature have been obtained and these results have been numerically worked out for different values of parameters involved in the solution. The Nusselt number and the Skin friction coefficient for various cases have also been calculated at both the discs and the results are expressed in a tabular form. The first-order velocity components have been presented graphically for various visco-elastic parameters.

The thesis is appended with a wide range of bibliography on the subjects dealt in various chapters. ■

কলাগুৰু বিষ্ণুপ্রসাদ ৰাভাৰ কলমত—

আহ্ অ'ন জিলিকনি।
জিলিকনি।।
আহ্ অ'ন জিলিকনি।।
পোহৰাই তোলা ই ধৰণী...
নুমোৱা (শাঁত) কৰা দুখৰে অগনি।
নহ'লে যে হ'ব ছাই
হায়! হায়!! হায়!!!
পৃথিৱী শুৱনি
চিৰ নৱ-জিলিকনি!
উৰুৱাই মৰু মৰতলৈ
শান্তিৰ কপৌটি
দিয়া মেলি ডেউকাৰ ছাঁত
শান্তি
মুক্তি
প্রগতিৰ জিলিকনি
আহ্ অ'ন জিলিকনি!!!

MATHEMATICAL LOGIC

Dr. Dipankar Sarma
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Logic (origin from Greek *Logike*) means the art of reasoning. It refers to both the study of modes of reasoning (which are valid and which are fallacious) and the use of valid reasoning. In the latter sense, logic is used in most intellectual activities, including philosophy and science, but in the first sense is studied primarily in the disciplines of philosophy, mathematics, semantics, and computer science. It examines general forms that arguments may take.

We have three different types of Logic : Informal, formal and symbolic. Informal logic is the study of natural language arguments. The study of fallacies is an especially important branch of informal logic. The dialogues of Plato are good examples of informal logic. Formal logic is the study of inference with purely formal content. An inference possesses a *purely formal content* if it can be expressed as a particular application of a wholly abstract rule, that is, a rule not about any particular thing or property. The works of Aristotle contain the earliest known formal study of logic. Symbolic logic is the study of symbolic abstractions that capture the formal feature's of logical inference. Symbolic logic is often divided into two branches– propositional logic and predicate logic.

Mathematical logic is an extension of symbolic logic into other areas. It is the study of valid inferences within some formal language. Mathematical logic was the name given by Giuseppe Peano. The field includes both the mathematical study of logic and the applications of formal logic to other areas of mathematics. The unifying themes in mathematical logic include the study of the expressive power of formal systems and the deductive power of formal proof systems. In its classical version, the basic aspects resemble the logic of Aristotle, but written using symbolic notation rather than natural language. Attempts to treat the operations of formal logic in a symbolic or algebraic way were made by some of the more philosophical mathematicians, such as Leibniz and Lambert. It was George Boole and then Augustus De Morgan, in the middle of the nineteenth century, who presented a systematic mathematical way of regarding logic. The traditional, Aristotelian doctrine of logic was reformed and completed; and out of it developed an instrument for investigating the fundamental concepts of mathematics. Some landmark publications on Mathematical Logic were the *Begriffsschrift* by Gottlob Frege, Studies in Logic by Charles Peirce, *Principia Mathematica* by Bertrand Russell and Alfred North Whitehead, and *On Formally Undecidable Propositions of Principia Mathematica and Related Systems* by Kurt Godel.

In Barwise's "Handbook of Mathematical Logic" (1977), he divides mathematical logic into four parts– set theory, proof theory, model theory and recursion theory.

⏩ Set theory is the study of sets, which are abstract collections of objects. The basic concepts

of set theory such as subset and relative complement are often called naive set theory. Moderm research is in the area of axiomatic set theory, which uses logical methods to study which propositions are provable in various formal theories such as Zermelo-Frankel set theory, known as ZFC, or New Foundations set theory, known as NF.

⏩ Proof theory is the study of formal proofs in various logical deduction systems. These proofs are represented as formal mathematical objects, facilitating their analysis by mathematical techniques. Frege worked on mathematical proofs and formalized the notion of a proof.

⏩ Model theory studies the models of various formal theories. The set of all models of a particular theory is called an elementary class. Classical model theory seeks to determine the properties of models in a particular elementary class, or determine whether certain classes of structures form elementary classes.

⏩ Recursion theory, also called computability theory, studies the properties of computable functions and the Turing degrees, which divide the uncomputable functions into sets which have the same level of uncomputability. The field has grown to include the study of generalized computability and definability. In these areas, recursion theory overlaps with proof theory and effective descriptive set theory.

The border lines between these fields, and also between mathematical logic and other fields of mathematics, are not always sharp; for example, Godel's incompleteness theorem marks not only a milestone in recursion theory and proof theory, but has also led to Loeb's theorem, which is important in modal logic. The mathematical field of category theory uses many formal axiomatic methods resembling those used in mathematical logic, but category theory is not ordinarily considered a subfield of mathematical logic.

The classical two valued Propositional logic and Predicate logic are two important branches of Mathematical logic Actually all types of arguments cannot be explained with the help of propositional logic. So we need to generalize the propositional logic and as a result the predicate logic comes in to the picture. Two basic objects in propositional logic are– statement and formula. By a statement we mean a declarative sentence that can be classified as true or false, but not both. The truth or falsity of a statement is called its truth value, denoted by T (or 1) and F (or 0) respectively. For example '3 is a Natural number' is a statement, which have truth value T. 'Delhi is the capital of USA' is a statement, which has truth value F. But 'What is your name', 'I am a liar' are not statements, because first one has no truth value and second has both.

Statements may be modified or combined in various ways to form new statements. The operations are truth functional in the sense that the truth values of the new statements are determined by the truth values of the component statements. Some basic operations of statements are : negation (~), conjunction ($\wedge$), disjunction ($\vee$), exclusive or ($\underline{\vee}$), conditional or implication ($\rightarrow$), biconditional or biimplication ($\leftrightarrow$) etc. Considering p, q as statements, we can construct the truth tables of these operations as :

Negation (~)

p	~p
T	F
F	T

conjunction ($\wedge$)

p	q	p $\wedge$ q
T	T	T
T	F	F
F	T	F
F	F	F

disjunction (∨)

p	q	p ∨ q
T	T	T
T	F	T
F	T	T
F	F	F

exclusive or (⊻)

p	q	p ⊻ q
T	T	F
T	F	T
F	T	T
F	F	F

conditional (→)

p	q	p → q
T	T	T
T	F	F
F	T	T
F	F	F

biconditional (↔)

p	q	p ↔ q
T	T	T
T	F	F
F	T	F
F	F	T

We may translate certain sentences written in a natural language into statement formulas using statement letters to stand for the atomic sentences and the connectives. Note that atomic sentences are those sentences which are not built up from other sentences, and as such do not contain any connective. Linguistic equivalence will be considered in using the connectives. For example if p denotes 'Kaziranga is in Assam' and q denotes 'Kaziranga is famous for rhino' then :

~ p denotes 'Kaziranga is not in Assam'

p ∧ q denotes' Kaziranga is in Assam and Kaziranga is famous for rhino'

p ∨ q denotes 'Kaziranga is in Assam or Kaziranga is famous for rhino'

p → q denotes 'if Kaziranga is in Assam then Kaziranga is famous for rhino'

p ↔ q denotes 'Kaziranga is in Assam if and only if Kaziranga is famous for rhino'

On the other side a predicate is a group of words which says something about the subject. For example '3 is a real number' is a statement in propositional calculus and here 'is a real number' is a predicate. We apply predicate to one or more names of object (or individuals) to make complete sentence. The object must be chosen from an appropriate set so that the sentences become statements. We use the propositional and predicate logic to solve so many problems in different fields of mathematics.

In Boolean Algebra, an abstract mathematical structure named after George Boole (1813 - 1864) the truth value T and F are denoted as 1 and 0 respectively. Boole tried to formalize the process of logical reasoning using symbols instead of words. In 1938 C. E. Shannon observed that electric circuit could be analysed by using Boolean algebra. Thereafter Boolean algebra became an essential tool for the analysis and design of many kinds of electronic devices like computers, telephones, mobiles etc. One of the most important application of Boolean algebra is to design and simplify the digital electronic circuits such as that used in computer hardware. In a digital computer the smallest object is a bit. All programs and data in a computer can ultimately be reduced to a combination of bits. There are only two possibilities for a bit : 1 or O. We transmit a bit from one part of a circuit to another part as voltage. For this we need two voltage levels. The inputs to these circuits is a set

of 0's and 1's and they have single output 0 or 1

Besides this there are many connections between mathematical logic and computer science. Many early pioneers in computer science, such as Alan Turing, were also mathematicians and logicians. The study of computability theory in computer science is closely related to the study of computability in mathematical logic. Computer scientists often focus on concrete programming languages and feasible computability, while researchers in mathematical logic often focus on computability as a theoretical concept and on non-computability. The study of programming language semantics is related to model theory, as program verification. The Curry-Howard isomorphism between proofs and programs relates to proof theory; intuitionistic logic and linear logic are significant here. Calculi such as the lambda calculus and combinatory logic are nowadays studied mainly as idealized programming languages. Computer science also contributes to mathematics by developing techniques for the automatic checking or even finding of proofs, such as automated theorem proving and logic programming. So we can conclude that mathematical logic is important and essential not only in mathematics but also for the development of modern science and technology.■

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ৰূপকোঁৱৰ
জ্যোতিপ্রসাদ আগৰৱালাৰ আহ্বান—

আমি কৰিব লাগিব পৃথিৱী আলোকময়
জ্ঞান-বিজ্ঞানৰ সকলো ধর্মৰ
নানা আদর্শৰ নানা বিভেদৰ
কৰিব লাগিব মহান সমন্বয়।

মহা মহত্বৰ বিৰোধী আসুৰী
সকলো শত্রু কৰিব লাগিব জয়।

এই পৃথিৱীলৈ আনিব লাগিব
মহত্বৰ মহাজয়,
কৰিব লাগিব গোটেই জগত
অমৃত আনন্দময়।

সমূহ ফুলিব লাগিব বিকশি
কৰিব লাগিব বিশ্বখনকে
স্বৰগী সুৰভিময়।

জয় হওক পোহৰৰ জয়
জয় হওক মানৱৰ মহত্বৰ আদর্শৰ জয়।

চিৰমংলগৰ, চিৰ কল্যাণৰ
জগতৰ এই মহাবিকাশৰ
হওক যুগে যুগে জয়
চিৰ সুন্দৰৰ জয়।