

Graphical image of Trisomy Ultrascan related Total edge magic labelling

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Abstract

INTRODUCTION: The goal of this research is to investigate child syndromes at the overall level using total edge magic labelling. luckily discussed with chromosomal diseases consisting of Down's syndrome, the syndrome of Edwards, and Patau syndrome.

OBJECTIVES: Ultrasound is used to check for Patau's, Edwards, and Down syndrome between 11 and 14 weeks of pregnancy. These syndromes can be determined before the baby is born. The name for trisomy 21 or Down syndrome. Trisomy 18 or Edwards syndrome; trisomy 13 or Patau syndrome.

METHODS: The ultrasound screen test was converted to a graphical image, and Total edge magic labelling was implemented. A bijection from VUE to the numbers, $\{1, 2, 3, \dots, p+q\}$ with the characteristic that each everybody $uv \in E$, $\Gamma(u) + \Gamma(uv) + \Gamma(v) = \Psi$ for some constant Ψ , is known as Total edge magic labelling.

RESULTS: The results of this test will determine the baby's type of trisomy. This study's impartial was to assess the efficacy of screening for 21, 18, and 13 trisomies at the 12-week mark in pregnancy.

CONCLUSION: The intended audience of this paper is a man or woman with a chromosomal disorder who should know about the health of their ancestors. A couple can go for genetic counselling and then plan for a baby.

Keywords: Edge magic labelling, Trisomies, Ultra scan screen

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1. Introduction

Graph theory can be used to precisely identify a lot of problems in reality. The most essential component of graph theory is labelling [1]. The Internet, electricity, biochemistry, medical technology, computer science, networks for communication, and genetics all depend on labelling [2,3]. The Königsberg, Germany, footbridge problem originated in 1735. Based on Euler, after passing the bridge and returning to the initial location, one can't return without swimming in the river [4,5]. Total edge magic labelling was introduced in 2001 by *W.D. Wallis* [6].

The Father of Genetics, according to Mendel, is usually referred to. *Gregor Johann Mendel* was interested in learning about the procedure of generation. He initiated collecting data on a pea plant [7]. Trisomies 21,18,13 represent Chromosomal Syndromes because they contain an excess of genetic material [8].

Down syndrome is a chromosomal disorder also known as trisomy 21. In 1886, British doctor *John Langdon Down* gave the condition the term Down syndrome. *Jerome Jean Louis Marie Lejeune*, a French human scientist, made the discovery of an additional genetic material chromosomal on the 21st chromosome in 1958 [9,10]. Trisomy 18 is another name for the chromosomal condition known as Edwards syndrome. Edwards syndrome was given that name by English geneticist *John Hilton Edwards* in 1960.

