

A STUDY ON THE FRACTIONAL CALCULUS AND GENERALIZED INTEGRAL TRANSFORMATION

P.N. Pathak[1], Varun Kumar[2],Raghvendra Singh[3]*, Archana Shukla[4], Chandrakant Kumar Singh[5]

[1]Department of Mathematics, CSJMU, Kanpur, U.P.

[2]Department of Mathematics,School of Arts & Sciences, University of the People, California,USA.

[3*]School of Sciences (Mathematics), UPRajarshi Tandon Open University, Prayagraj, U.P.

[4]Department of Mathematics, Nehru Gram Bharati (deemed to be) University, Prayagraj, U.P.

[5]School of Sciences (Computer Science), UPRajarshi Tandon Open University, Prayagraj, U.P.

Corresponding Author*

ABSTRACT

In this study, we focus on a variety of interesting and beneficial characteristics that are linked to insufficient capacities. Work is a representation of the expansion of the inadequate quantity of work that has been done. In this paper, we analyze and discover a few supporting conventional basic alterations linked with these capacities. In addition to this, we conduct an analysis of the incomplete analytics with the absent capabilities, and we highlight a few cases that are particularly noteworthy. In conclusion, we are going to talk about the functions that insufficient beta-works play in the various glucose supply found in human blood, and we will start with an explanation of what beta-works are.

Keywords: Fractional Calculus, Integral Operators, Generalized Integral Transformation

INTRODUCTION

A limited group of innovators is responsible for presenting and researching the multiple spectacular capabilities (for example, the gamma work, the beta work, the Bessel work, the Mittag-Leffler job, the hypergeometric capacity, and Fox's H-work). Over the entirety of the seventeenth century, French scientists named P. Legendre [1],J. Schlomilch and F. Tannery, were the ones who first created the idea of inadequate gamma capabilities, often known as IGFs. The character Lerch was used to represent the substandard gamma work that was done throughout the series. Beyond that point, only a few set of experts will be able to make meaningful progress toward a solution to the problem of insufficient gamma capabilities. In the nineteenth century, Sudland et al. [2, 3] made the initial presentation of the Aleph work and conducted the initial research on it. After then, a lot of academics and developers came up with exciting results and recommended prospective applications in a range of sectors, such as engineering, applied mathematics, and physics, amongst others. These findings and suggestions have been made public. In more recent times, Srivastava et al. [4] have conducted research and carried out extensive analysis of the divided Pochhammer pictures. In addition to this, they have introduced summarized insufficient hypergeometric capabilities

(GIHF). In addition to this, they provided the typical applications in the domains of correspondence theory, groundwater siphoning model, and probability speculation and examined the basic essential description, subsidiary plans, and Mellin-Barnes structure of these GIHF. Srivastava et al. [5] have introduced and researched the split H-capabilities and inadequate H-capabilities, which is the expansion of Fox's H-work. These findings were published not too long ago. In addition to presenting a few illustrations of possible applications for the segmented H-capabilities, they also developed the breaking down condition, the subordinate formula, standard vital alterations, and fragmentary analytics. With the assistance of the IGFs, we will both provide and conduct research on the missing Aleph capabilities. Moreover, we link them to the other one-of-a-kind skills, seeing as how the ongoing evaluation work on the various unique capabilities has persuaded us that this is something that is required. In a similar manner, we determine the fundamental change that is associated with the classical, which is variably referred to as the Laplace change, the Mellin change, and the Sumudu change. In addition to this, we work on a simplified formula for fragmented analytics to address deficient skills. When we eventually get there, we are going to talk about the applications of beta-capabilities that are insufficient for the purpose of monitoring glucose supply in human blood, so stay tuned for that. After our discussion of the themes discussed previously, we will move on to this next topic.

The field of fractional calculus, more commonly abbreviated as FC, is a fascinating one that provides a supportive environment for more creative endeavors in the field of mathematical inquiry. This field of research is frequently mentioned in academic circles. When it came to the FC, we zeroed in on a small set of persons who were singular and important in their capacities as partial solicitation overseers. In the most recent few years, a number of the managers of FC, most notably the Marichev-Saigo-Maeda fragmentary key chairmen, in addition to its good instances such as Riemann-Liouville, Weyl, Grunwald-Letnikow, and [6,7], have been taken into consideration. In addition, a number of writers, such as Atangana-Baleanu[8,9], Kiryakova[10,11],Bansal [12-17], Kumar et al[19-21], Kilbas et al[22], Yang et al[23], Podlubny [24], Malik et al. [48, 50], Yadav and Malik [49]and Dubey et al[25,26], have emphasized the substantial responsibilities that are present in this area of study. In recent years, a number of traditional uses of fragmented overseers have been supplied by a variety of various manufacturers for use in a wide range of different sectors (for further specifics, see previous evaluations) [27-36].

When the solicitation for blend and detachment might be an optional number (partial, irrational, or complex), that is, and not needed number, the concept of "Fragmentary Calculus" (FC) or "Partial Analysis" is utilized for the expansion of the Calculus. When the request for blend and detachment can be an optional number (partial, irrational, or complex). In the same way that both of the circumstance for repeated blend, or of the restricted differences approach, the implications of the chairmen for partial joining and division, in the same way as both of the situation for repeated blend, or of the approach, give enlightening advisers for the techniques for theory in mathematics, in order to accomplish an additional reasonable more broad idea and an additional degree of opportunity. It is possible that we may state that it was enough to serve as a replacement for the "n-factorial" in the Cauchy formula in order to offer a little bit more clarity.

$$R^n f(z) := D^{-n} f(z) = \int_0^z dt_1 \int_0^{t_1} \ldots \int_0^{t_{n-1}} f(t_n)\, dt_n = \frac{1}{(n-1)!} \int_0^z (z-t)^{n-1} f(t)dt, \quad n \in \mathbb{N}_+,$$

by use of a "Gamma-work," so as to carry out the alleged Riemann-Liouville (R-L) necessary (administrator for incorporation), of partial request.

$\delta > 0$ (or $\Re(\delta) > 0$)

$$R^\delta f(z) := D^{-\delta} f(z) = \frac{1}{\Gamma(\delta)} \int_0^z (z-t)^{\delta-1} f(t)dt = z^\delta \int_0^1 \frac{(1-\sigma)^{\delta-1}}{\Gamma(\delta)} f(z\sigma)d\sigma . \tag{2}$$

Then, because of the axiom $DRf(z) = f(z),\ D^n R^n f(z) = f(z)$ (where R and D = $\frac{d}{dz}$ signal the inclusion and separation of initial request), it is reasonable to designate the associated Riemann-Liouville partial subsidiary as a component of a subordinate of whole number request and an essential of positive fragmentary request of the structure (2):

$$D^\delta f(z) := D^n R^{n-\delta} f(z) = \left(\frac{d}{dz}\right)^n \left\{ \frac{1}{\Gamma(n-\delta)} \int_0^z (z-t)^{n-\delta-1} f(t)dt \right\}, \tag{3}$$

Where $n := [\delta] + 1 > \delta,\ [\delta] =$ the integer part of δ.A little more general, as depending on (3) parameters δ > 0 (order) $\gamma \in \mathbb{R}$ (weight) and $\beta > 0,$ are the Erd´elyi-Kober (E-K) fractional integration operators

$$I_\beta^{\gamma,\delta} f(z) = \left[t^{-(\gamma+\delta)} R^\delta t^\gamma f(t^{\frac{1}{\beta}}) \right]_{t:=z^\beta} = \frac{z^{-\beta(\gamma+\delta)}}{\Gamma(\delta)} \int_0^z (z^\beta - \xi^\beta)^{\delta-1} \xi^{\beta\gamma} f(\xi)\, d(\xi^\beta), \tag{4}$$

Which of the following, regarding treatment, applications, and hypotheses, are more suitable to be composed, after a replacement, as:

$$I_\beta^{\gamma,\delta} f(z) = \frac{1}{\Gamma(\delta)} \int_0 (1-\sigma)^{\delta-1} \sigma^\gamma\ f(z\sigma^{\frac{1}{\beta}})\, d\sigma . \tag{5}$$

The comparing E-K partial subordinates have a symbolical portrayal as

$$D_{\beta}^{\gamma,\delta} z(z) = \left[t^{-\gamma}\ D^{\delta}\ t^{\gamma+\delta}\ x(t^{\frac{1}{\beta}}) \right]_{t:=z^{\beta}}. \tag{6}$$

Advancement of traditional FC

In the reference book that was prepared by Samko, Kilbas, and Marichev [40], the hypothesis of the FC as well as its initial applications, in the more traditional version susceptible to), or different meanings have been detailed in sufficient detail and in a comprehensive manner. Read the sources that are available in [40] and in [42, 43] for further information on how the growth of FC had been somewhat questionable and did not go without a hitch throughout the time period that is referred to as its "Old past" (1695–1970). Since 1970, there has been a significant amount of reconstruction and expansion that has been prompted as a result of the requirements for fragmentary solicitation mathematical models in pure mathematics, physics, and chemistry, as well as in the applied sciences. These requirements have been prompted in light of the fact that there has been an increase in the amount of fragmentary solicitation mathematical models that are required. These models, which are of a fractal nature, provide a more realistic depiction of the genuine miracles and happenings that take place in the material and social realms. The open questions such as "If there exist any mathematical or real ramifications of the heads of FC or potentially proper mathematical models using them..." had wandered down from the arrangement, and had been replaced by the new moves how to execute more broadly and even more capably the FC devices in handling the issues, through fragmentary solicitation differential and essential conditions and structures, gotten together with numerical and graphical understandings, and further impedance.

In recent years, a number of researchers have concentrated their attention on the consolidated partial vital administrators [45], including the various exceptional capabilities (deficient H-capacities, Mittag-Leffler work, Bessel work, S-summed up Gauss hypergeometric work, and so on). In this study a image recipe for Aleph-work under the Marichev-Saigo-Maeda fragmentary essential administrators, whose piece is Appell's hypergeometric work FC, is produced [51-52]. The following is a description of the traditional connotation that is associated with the phrase gamma work:

$$\Gamma(\nu) = \begin{cases} \int_0^{\infty} e^{-u} u^{\nu-1} du & (\Re(\nu) > 0) \\ \frac{\Gamma(\nu+\kappa)}{(\nu)_{\kappa}} & (\nu \in \mathbb{C}\setminus\mathbb{Z}_0^-;\ \ \kappa \in \mathbb{N}_0), \end{cases} \tag{7}$$

Where $(\nu)_k$ indicates the Pochhammer image characterized (for ν, $\kappa \in$ C) by

$$(\nu)_{\kappa} := \frac{\Gamma(\nu+\kappa)}{\Gamma(\nu)} = \begin{cases} 1 & (\kappa = 0;\ \ \nu \in \mathbb{C}\setminus\{0\}) \\ \nu(\nu+1)\ldots(\nu+n-1) & (\kappa = n \in \mathbb{N};\ \ \nu \in \mathbb{C}), \end{cases} \tag{8}$$

Given that the gamma remainder exists

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The notable IGFs (ν, y) and $\Gamma(\nu, y)$ are communicated as follows:

$$\gamma(\nu, y) = \int_0^y u^{\nu-1} e^{-u} du \qquad (\Re(\nu) > 0;\ y \geq 0) \tag{9}$$

And

$$\Gamma(\nu, y) = \int_y^\infty u^{\nu-1} e^{-u} du \qquad (y \geq 0;\ \Re(\nu) > 0 \ \text{ when } \ y = 0), \tag{10}$$

Equation (9) and (10) respectively, satisfies the following formula for further decomposition:

$$\gamma(\nu, y) + \Gamma(\nu, y) = \Gamma(\nu) \qquad (\Re(\nu) > 0). \tag{11}$$

The GF (v) and the IGFs (v,y) and $\Gamma(\nu, y)$, which are stated in (7), (9), and (10), accept standard components in the space of science and planning. These specifications are made independently of one another, Abramowitz and Stegun [46] and Andrews [47]. The concept of probability may be applied in a wide variety of contexts, some of which are covered in the following paragraphs of this page.

In this article, we are going to discuss and look into the following topics:

the incomplete ℵ-functions ${}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}(z)$ and ${}^{(\gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}(z)$ containing the IGFs (ν, y) and $\Gamma(\nu, y)$ as follows:

$$\begin{aligned} {}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}(z) &= {}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}\left[z \left| \begin{matrix} (\mathfrak{d}_1, \mathfrak{D}_1, y), (\mathfrak{d}_j, \mathfrak{D}_j)_{2,n}, [\rho_j(\mathfrak{d}_{ji}, \mathfrak{D}_{ji})]_{n+1,p_i} \\ (\mathfrak{e}_j, \mathfrak{E}_j)_{1,m}, [\rho_j(\mathfrak{e}_{ji}, \mathfrak{E}_{ji})]_{m+1,q_i} \end{matrix} \right. \right] \\ &= \frac{1}{2\pi i} \int_{\mathcal{L}} \mathbb{K}(\xi, y) z^{-\xi} d\xi, \end{aligned} \tag{12}$$

where $z \neq 0$, and

$$\mathbb{K}(\xi, y) = \frac{\Gamma(1 - \mathfrak{d}_1 - \mathfrak{D}_1\xi, y) \prod_{j=1}^{m} \Gamma(\mathfrak{e}_j + \mathfrak{E}_j\xi) \prod_{j=2}^{n} \Gamma(1 - \mathfrak{d}_j - \mathfrak{D}_j\xi)}{\sum_{i=1}^{r} \rho_i \left[\prod_{j=m+1}^{q_i} \Gamma(1 - \mathfrak{e}_{ji} - \mathfrak{E}_{ji}\xi) \prod_{j=n+1}^{p_i} \Gamma(\mathfrak{d}_{ji} + \mathfrak{D}_{ji}\xi) \right]} \tag{13}$$

And

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$$ {}^{(\gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}(z) = {}^{(\gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}\left[z \left| \begin{matrix} (\mathfrak{d}_1, \mathfrak{D}_1, y), (\mathfrak{d}_j, \mathfrak{D}_j)_{2,n}, \left[\rho_j(\mathfrak{d}_{ji}, \mathfrak{D}_{ji})\right]_{n+1,p_i} \\ (\mathfrak{e}_j, \mathfrak{E}_j)_{1,m}, \left[\rho_j(\mathfrak{e}_{ji}, \mathfrak{E}_{ji})\right]_{m+1,q_i} \end{matrix} \right. \right] $$

$$ = \frac{1}{2\pi i}\int_{\mathcal{L}} \mathbb{L}(\xi, y) z^{-\xi} d\xi, \qquad (14) $$

where $z \neq 0$ and

$$ \mathbb{L}(\xi, y) = \frac{\gamma(1 - \mathfrak{d}_1 - \mathfrak{D}_1\xi, y)\prod_{j=1}^{m}\Gamma(\mathfrak{e}_j + \mathfrak{E}_j\xi)\prod_{j=2}^{n}\Gamma(1 - \mathfrak{d}_j - \mathfrak{D}_j\xi)}{\sum_{i=1}^{r}\rho_i\left[\prod_{j=m+1}^{q_i}\Gamma(1 - \mathfrak{e}_{ji} - \mathfrak{E}_{ji}\xi)\prod_{j=n+1}^{p_i}\Gamma(\mathfrak{d}_{ji} + \mathfrak{D}_{ji}\xi)\right]}. \qquad (15) $$

Those -functions that aren't quite finished. ${}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}(z)$ and ${}^{(\gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}(z)$ in (12) and (14) exist for all $y \geq 0$ under the set of conditions as given below.

The contour $\mathcal{L}$ in the complex ξ-plane extends from $\gamma - i\infty$ to $\gamma + i\infty$, $\gamma \in \mathbb{R}$, and poles of the gamma functions $\Gamma(1 - \mathfrak{d}_j - \mathfrak{D}_j\xi), j = \overline{1,n}$ do not exactly match with the poles of the gamma functions $\Gamma(\mathfrak{e}_j + \mathfrak{E}_j\xi), j = \overline{1,m}$. the parameters pi, qi are non-negative integers satisfying $0 \leq n \leq p_i, 0 \leq m \leq q_i$ for $i = \overline{1,r}$. The parameters $\mathfrak{D}_j, \mathfrak{E}_j, \mathfrak{D}_{ji}, \mathfrak{E}_{ji}$ are positive numbers, and $\mathfrak{d}_j, \mathfrak{e}_j, \mathfrak{d}_{ji}, \mathfrak{e}_{ji}$ are complex. All poles of $\mathbb{K}(\xi, y)$ and $\mathbb{L}(\xi, y)$ and $\mathbb{L}(\xi, y)$ are expected to be easy, and the finished output is considered to be a single entity.

$$ \mathfrak{H}_i > 0, \qquad |\arg(z)| < \frac{\pi}{2}\mathfrak{H}_i \qquad i = \overline{1,r} \qquad (16) $$

$$ \mathfrak{H}_i \geq 0, \qquad |\arg(z)| < \frac{\pi}{2}\mathfrak{H}_i \qquad \text{and} \qquad \Re(\Phi_i) + 1 < 0 \qquad (17) $$

Where

$$ \mathfrak{H}_i = \sum_{j=1}^{n}\mathfrak{D}_j + \sum_{j=1}^{m}\mathfrak{E}_j - \rho_i\left(\sum_{j=n+1}^{p_i}\mathfrak{D}_{ji} + \sum_{j=m+1}^{q_i}\mathfrak{E}_{ji}\right), \qquad (18) $$

$$ \Phi_i = \sum_{j=1}^{m}\mathfrak{e}_j - \sum_{j=1}^{n}\mathfrak{d}_j + \rho_i\left(\sum_{j=m+1}^{q_i}\mathfrak{D}_{ji} - \sum_{j=n+1}^{p_i}\mathfrak{E}_{ji}\right) + \frac{1}{2}(p_i - q_i) \qquad i = \overline{1,r}. \qquad (19) $$

The fragmented ℵ-capacities (Γ), ℵm,npi,qi,ρi;r(z) and (γ) ℵm,npi,qi,ρi;r(z) characterized in (12) and (14) lessen to the few natural exceptional capacity (for instance, ℵ-work, inadequate I-work, I-work, deficient H-capacities, and Fox's H-work) as follows :

(i) If we set $y = 0$, then, at that point (12) diminishes to the ℵ-work presented by Südland:

$$ {}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,\rho_i;r}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,0),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},\left[\tau_j(\mathfrak{d}_{ji},\mathfrak{D}_{ji})\right]_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},\left[\rho_j(\mathfrak{e}_{ji},\mathfrak{E}_{ji})\right]_{m+1,q_i}\end{matrix}\right.\right]=\aleph^{m,n}_{p_i,q_i,\rho_i;r}\left[z\left|\begin{matrix}(\mathfrak{d}_j,\mathfrak{D}_j)_{1,n},\left[\rho_j(\mathfrak{d}_{ji},\mathfrak{D}_{ji})\right]_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},\left[\rho_j(\mathfrak{e}_{ji},\mathfrak{E}_{ji})\right]_{m+1,q_i}\end{matrix}\right.\right] \tag{20}$$

(ii) For ρi = 1, then (12) and (14) reduce to the incomplete I-functions introduced by Bansal and Kumar:

$$ {}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,1;r}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,y),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},\left[1(\mathfrak{d}_{ji},\mathfrak{D}_{ji})\right]_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},\left[1(\mathfrak{e}_j,\mathfrak{E}_j)\right]_{m+1,q_i}\end{matrix}\right.\right] = {}^{(\Gamma)}I^{m,n}_{p_i,q_i;r}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,y),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},(\mathfrak{d}_{ji},\mathfrak{D}_{ji})_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},(\mathfrak{e}_{ji},\mathfrak{E}_{ji})_{m+1,q_i}\end{matrix}\right.\right] \tag{21}$$

And

$$ {}^{(\gamma)}\aleph^{m,n}_{p_i,q_i,1;r}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,y),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},\left[1(\mathfrak{d}_{ji},\mathfrak{D}_{ji})\right]_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},\left[1(\mathfrak{e}_j,\mathfrak{E}_j)\right]_{m+1,q_i}\end{matrix}\right.\right] = {}^{(\gamma)}I^{m,n}_{p_i,q_i;r}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,y),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},(\mathfrak{d}_{ji},\mathfrak{D}_{ji})_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},(\mathfrak{e}_{ji},\mathfrak{E}_{ji})_{m+1,q_i}\end{matrix}\right.\right]. \tag{22}$$

(iii) Further taking ρi = 1 and $y = 0$ in (12), then, at that point it diminishes to the I-capacities presented by Saxena:

$$ {}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,1;r}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,0),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},\left[1(\mathfrak{d}_{ji},\mathfrak{D}_{ji})\right]_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},\left[1(\mathfrak{e}_j,\mathfrak{E}_j)\right]_{m+1,q_i}\end{matrix}\right.\right] = I^{m,n}_{p_i,q_i;r}\left[z\left|\begin{matrix}(\mathfrak{d}_j,\mathfrak{D}_j)_{1,n},(\mathfrak{d}_{ji},\mathfrak{D}_{ji})_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},(\mathfrak{e}_{ji},\mathfrak{E}_{ji})_{m+1,q_i}\end{matrix}\right.\right] \tag{23}$$

(iv) Again setting ρi = 1 and r = 1 in (12) and (14), then, at that point it lessens to the fragmented H-capacities presented by Srivastava:

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$$ {}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,1;1}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,y),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},\left[1(\mathfrak{d}_{ji},\mathfrak{D}_{ji})\right]_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},\left[1(\mathfrak{e}_j,\mathfrak{E}_j)\right]_{m+1,q_i}\end{matrix}\right.\right]=\Gamma^{m,n}_{p,q}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,y),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,p}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,q}\end{matrix}\right.\right] \quad (24) $$

And

$$ {}^{(\gamma)}\aleph^{m,n}_{p_i,q_i,1;1}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,y),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},\left[1(\mathfrak{d}_{ji},\mathfrak{D}_{ji})\right]_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},\left[1(\mathfrak{e}_j,\mathfrak{E}_j)\right]_{m+1,q_i}\end{matrix}\right.\right]=\gamma^{m,n}_{p,q}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,y),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,p}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,q}\end{matrix}\right.\right] \quad (25) $$

A total depiction of fragmented H-capacities can be found in the article.

(v) Further taking $y = 0$, $\rho i = 1$ and r = 1 in (12), then, at that point it lessens to the recognizable Fox's H-work:

$$ {}^{(\Gamma)}\aleph^{m,n}_{p_i,q_i,1;1}\left[z\left|\begin{matrix}(\mathfrak{d}_1,\mathfrak{D}_1,0),(\mathfrak{d}_j,\mathfrak{D}_j)_{2,n},\left[1(\mathfrak{d}_{ji},\mathfrak{D}_{ji})\right]_{n+1,p_i}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,m},\left[1(\mathfrak{e}_{ji},\mathfrak{E}_{ji})\right]_{m+1,q_i}\end{matrix}\right.\right]=\mathcal{H}^{m,n}_{p,q}\left[z\left|\begin{matrix}(\mathfrak{d}_j,\mathfrak{D}_j)_{1,p}\\(\mathfrak{e}_j,\mathfrak{E}_j)_{1,q}\end{matrix}\right.\right]. \quad (26) $$

Various extraordinary capacities can be acquired from the inadequate ℵ-capacities in which some intriguing capacities are recorded previously.

CONCLUSION

We studied the insufficient capacities as part of the scope of this investigation. As a particular illustration, the inadequate capabilities encompass both the capability and the capacity that has been recognized. But, once we reached that point, we uncovered a number of intriguing antiquated vital modifications of inadequate capabilities. In addition, we have set some criteria by making use of partial analytics and inadequate skills, and we have also brought to light a few really good scenarios. This was done so that we may better serve you. In conclusion, we have shown that missing capabilities may be used to identify the presence of glucose in human blood. This detection was carried out using blood samples.

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