Ammar Husain Total
MLAssist - Personalised DPP

Question Paper Analysis:

Question Paper Analysis by Topic

- Atomic Structure: 29.6%
- Vector: 31.5%
- Functions: 14.8%
- Iratic Equation: 24.1%

Weak Topic Analysis:

Y-axis: Fraction of Questions Attempted Wrong

Functions: 0.75

Topics: Arranged in order of Most to Least Weak
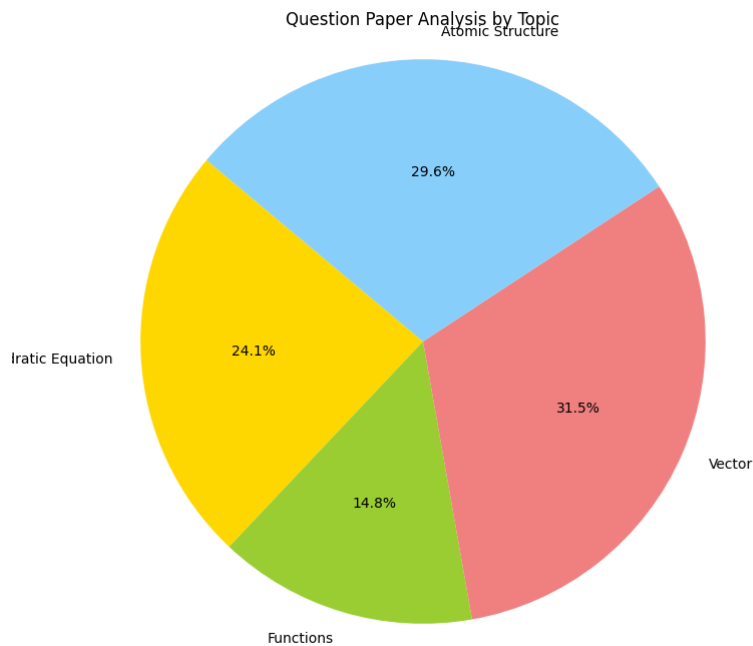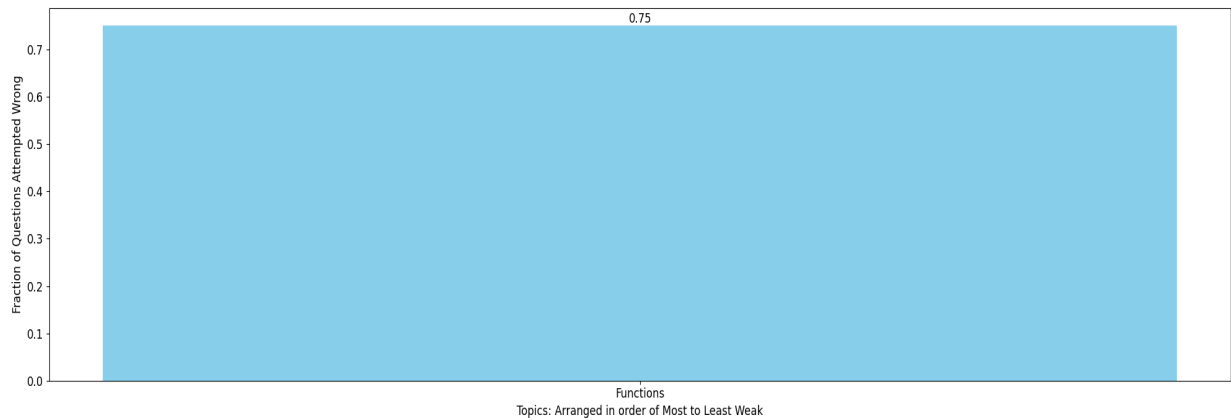
Practice Questions:

Functions:

11. Find whether the following functions are even or odd or none

(a) $f(x) = \log\left(x + \sqrt{1 + x^2}\right)$

(b) $f(x) = \dfrac{x(a^x + 1)}{a^x - 1}$

(c) $f(x) = \sin x + \cos x$

(d) $f(x) = x\sin^2 x - x^3$

(e) $f(x) = \sin x - \cos x$

(f) $f(x) = \dfrac{(1 + 2^x)^2}{2^x}$

(g) $f(x) = \dfrac{x}{e^x - 1} + \dfrac{x}{2} + 1$

(h) $f(x) = [(x + 1)^2]^{1/3} + [(x - 1)^2]^{1/3}$

1. Find the number of integer in the range of the function,

$$f(x) = \sqrt{\sin \frac{\pi x}{2} + \sqrt{16 - x^2} + \sqrt{x} + \log_2 (x(x - 2))}$$

Daily Work Sheet-2

SINGLE CORRECT TYPE

. Which of the following statements are incorrect? I. If $f(x)$ and $g(x)$ are one to one then

$f(x) + g(x)$ is also one to one.

II. If $f(x)$ and $g(x)$ are one-one then $f(x) \cdot g(x)$ is also one-one.

III. If $f(x)$ is odd then it is necessarily one to one.

(A) I and II only   (B) II and III only

(C) III and I only   (D) I, II and III

2. Which of the following equations have the same graphs?

I. $y = x - 2$

II. $y = \dfrac{(x^2-4)}{(x+2)}$

III. $(x + 2)y = x^2 - 4$

(A) I and II only.

(B) I and III only.

(C) II and III only.

(D) All the equations have different graphs.

14. If $f(x) = \left(\dfrac{1-x}{1+x}\right)$, $|x| < 1$, then $f\left(\dfrac{2x}{1+x^2}\right)$ is equal to   **[JEE - Main 2019]**

(A) $2f(x)$ (B) $2f(x^2)$ (C) $(f(x))^2$ (D) $-2f(x)$

2. For the function $f(x) = \dfrac{e^x+1}{e^x-1}$, if $n(d)$ denotes the number of integers which are not in its domain and $n(r)$ denotes the number of integers which are not in its range, then $n(d) + n(r)$ is equal to

(A) 2   (B) 3   (C) 4   (D) Infinite