

2020
Mathematics (General)

3rd Year
Assignment

Full Marks - 20

Answer all question :

$2 \times 10 = 20$

1. In a Boolean Algebra, show that $c + c \cdot d = c$ for all $c, d \in B$.
 2. Find the interval of convergence of $\sum_{n=0}^{\infty} \left(\frac{x-4}{3}\right)^n$.
 3. Write a short note about 'pie diagram'.
 4. Write the FORTRAN expression of $x^2y + \cos x + e^y$.
 5. Find $L^{-1}\left\{\frac{5}{s-2}\right\}$?
 6. Determine the P.D.E. of the solution $z = (x+a)(y+b)$, where a, b are constant.
 7. Find the Laplace Transformation of $\cos^2(at)$.
 8. Find $10110_2 - 10001_2 = ?$
 9. Find the Binary equivalent of $(99)_{10}$?
 10. Find the remainder when $(12)^{24}$ is divided by 5.
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