Study Material

B Sc General PHYSICS
Semester-IV

DSC-1D

Duration- 1 hr

Date: 05/04/2020

Time- 8AM-9AM

Fourier's theorem.

13519: Coulur nouve 191310) suprige och sign Con- Lout omentions Grafit zionger Sine soi Cosine muz- control mi Esta sour suis mi.

smarlon one, $y = f(\omega t) \propto (a_n con \omega t + b_n sin n \omega t)$ $= a_0 + \sum_{n=1}^{\infty} (a_n con \omega t + b_n sin n \omega t)$ 622mat 05t 5T, T= 25/w.

y = f(x) = f(0) = f(t) = ao + E (an cosna + bn sinna)

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क्रिक्क बीपुम प्रिप्तिक प्रिकंप :

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JTydt = ao JTdt + Z [an JT cornet dt + bn o sin not dt?

of Connot dt =0 Ari of SIN not dt =0 $\int_{0}^{T} \cos n\omega t \, dt = 0$ $\int_{0}^{T} \int_{0}^{T} \int_{0}^$

20 = 1 J y dt - - .. (3) (2) an finder more 5705 (1) et; militarigare Best entrer cos must at unos 3th anos t20 (1) et; militarigare Best entrer cos must at unos 3th anos 120 (1) et; militarigare Best entrer cos must at unos 3th anos 120 (1) et; militarigare Best entrer cos must at unos 3th anos 120 (1) et; militarigare Best entrer cos must at unos 3th anos 120 (1) et; militarigare Best entrer cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 3th anos 120 (1) et; militarigare Best entre cos must at unos 2th anos 120 (1) et entre cos must at unos 12 ano ensir mi-Jy cosmot dt = no j cos mot dt + I am of Cosmot cosmot dt + 2 bn f sin not cos mat dt _____(a) (rising to compate dt = 0 It sinnat cos must dt = 0, St comment dt = T Smn i. (4) it; milanori (man and and and JTy commit $dt = \sum_{n=1}^{\infty} a_n \cdot \sum_{n=1}^{\infty} S_{mn}$ $m = n \cdot 27^{n\tau} \cdot S_{mn} = 1$ $\int_{0}^{T} y \cos n\omega t dt = a_{1} \cdot \frac{T}{2}$ an $z = \frac{2}{T} \int_{0}^{T} y \cos n\omega t dt$ (3) -au sisu, pu juys acien acien (1) y; myanisu gras ensus SIM most dt Mo. Zn-ema, o (Man T Mars 225)-- Industry auto when win bn = 2 T of y sin not dt (6)

an $2\frac{1}{7}\int_{0}^{7} y dt$ an $2\frac{2}{7}\int_{0}^{7} y connt dt$ bn $2\frac{2}{7}\int_{0}^{7} y sin not dt$

- consigner (2) is infrience of the state of the second o