1.0.1) + 0.(1.1.0).1.0.1) + 1(1

he vector space  $\beta_2, T(\alpha_2) = \beta$ , of U and  $(\beta_1)$ 

of 0 and  $(\beta_1$   $\alpha_2$ ,  $T(\alpha_3) = 2\beta$  $\alpha_3$  and  $\alpha_4$  and  $\alpha_4$  and  $\alpha_5$  and  $\alpha_5$ 

 $2\beta_2 = (\beta_1 - \beta_2)$  $3\beta_2 = (\beta_1 - \beta_2)$  $= 3(\beta_1 - \beta_2)$ 

d bases of the that  $T(\alpha_1)$ : s  $(\alpha_1, \alpha_2, \alpha_3)$ 

 $)=0.\beta_1+$ 

Exe

real number ctor space ( L, y + v); c

u,y+v);

u,y+v)

+ 4, 4 + 0

 $dors \alpha =$ 

4th Sem

Internal Assemment

Solve - [D2-a] of = sinax

Marko-10

5+5= 10

2) Fina the differential equation of the circles Passing through origin 2 having their centrus on Zaxio.?

2nd sem

Inturnal Assessment

Marks-10

5+5=10

- Show that the vectors (-1,2,1); (3,0,-1); (-5,4,3) are linearly dependent.
- Fina the eigen values of the matrix  $A = \begin{bmatrix} 3 & 1 & 1 \\ 1 & 5 & 1 \\ 1 & 4 & 3 \end{bmatrix}$

6th 8em Internal Appenment

Marks-10

- a) show that  $f(z) = |z|^2$  is continuous totall
- (6) Let + be analytic in a region on them # +'(2)=0 on by the fis constant on by

## 2nd sem

## Internal. Assessment

Marks-10 
$$5 + 5 = 10$$

- (a) Show that the vectors (-1,2,1); (3,0,-1); (-5,4,3) are linearly dependent. (b) Find the eigen values of the matrix

$$A = \begin{bmatrix} 3 & 1 & 1 \\ 1 & 5 & 1 \\ 1 & 1 & 3 \end{bmatrix}$$

## 4th sem

## Internal Assessment

Marks-10 5+5=10

(1) Solve -

$$[D^2 - a^2]y = \sin ax$$

(2) Find the differential equation of the circles parsing through origin 2 having their centers on x-axis.?