LAMPIRAN

Lampiran 1 Listing Program

1. *Listing* Program Tabel Perhitungan Hasil Pengujian Marshall

```
unit UnitMar;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, ExtCtrls, Buttons, Grids, DBGrids, DB, DBTables, jpeg,
  ComCtrls;

type
  TFTabel = class(TForm)
    Bevel1: TBevel;
    Label2: TLabel;
    Label3: TLabel;
    Label1: TLabel;
    GroupBox1: TGroupBox;
    Label4: TLabel;
    Label5: TLabel;
    Label6: TLabel;
    Label7: TLabel;
    Label8: TLabel;
    Label9: TLabel;
    Label10: TLabel;
    Label12: TLabel;
    edkor: TEdit;
    edU: TEdit;
    gram: TLabel;
    Label13: TLabel;
    Label14: TLabel;
    Label15: TLabel;
    Label16: TLabel;
    BitBtn1: TBitBtn;
    BitBtn2: TBitBtn;
    BitBtn3: TBitBtn;
    edA: TEdit;
    edC: TEdit;
    edE: TEdit;
    edF: TEdit;
    edG: TEdit;
    edQ: TEdit;
    cmbisi: TComboBox;
    Button1: TButton;
    tbmar: TTable;
    dsmar: TDataSource;
```

2. *Listing* Program *Plotting point* antara % Kadar Aspal terhadap % VIM

```
unit Unit1;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, Grids, DBGrids, DB, DBTables, Buttons, TeEngine,
  Series, ExtCtrls, TeeProcs, Chart, DbChart, ComCtrls;

type
  TFGrafik1 = class(TForm)
    tbmar1: TTable;
    tbkdvim: TTable;
    Session1: TSession;
    Database1: TDatabase;
    dskdvim: TDataSource;
    dsmar1: TDataSource;
    DBGrid1: TDBGrid;
    GroupBox1: TGroupBox;
    Label1: TLabel;
    Label2: TLabel;
    Label3: TLabel;
    Label4: TLabel;
    eda: TEdit;
    edb: TEdit;
    edc: TEdit;
    DBGrid2: TDBGrid;
    BitBtn1: TBitBtn;
    BitBtn2: TBitBtn;
    DBChart1: TDBChart;
    Series1: TFastLineSeries;
    GroupBox2: TGroupBox;
    Label5: TLabel;
    edsy: TEdit;
    DBGrid3: TDBGrid;
    BitBtn3: TBitBtn;
    BitBtn4: TBitBtn;
    BitBtn5: TBitBtn;
    dssy: TDataSource;
    tbsy: TTable;
    StatusBar1: TStatusBar;
    procedure BitBtn1Click(Sender: TObject);
    procedure BitBtn2Click(Sender: TObject);
    procedure BitBtn4Click(Sender: TObject);
    procedure BitBtn3Click(Sender: TObject);
```

```
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  FGrafik1: TFGrafik1;

implementation

{$R *.dfm}

procedure TFGrafik1.BitBtn1Click(Sender: TObject);
begin
if (eda.Text<>'')and(edb.Text<>'')and(edc.Text<>'')then
begin
tbkdvim.Insert;
tbkdvim['%berat thdp total camp.']:=tbmar1['%berat thdp total camp.'];
tbkdvim['VIM']:=eda.Text*tbkdvim['%berat thdp total camp.']*tbkdvim['%berat
thdp total camp.']+edb.Text*tbkdvim['%berat thdp total camp.']+edc.Text;
end
else
Application.MessageBox('Ada data yang belum
diisi','Kesalahan',mb_OK+mb_DefButton1);
end;

procedure TFGrafik1.BitBtn2Click(Sender: TObject);
begin
if application.MessageBox('Anda yakin data dihapus?','Peringatan',mb_YESNO or
mb_ICONQUESTION)=IDYES then
tbkdvim.Delete;
end;

procedure TFGrafik1.BitBtn4Click(Sender: TObject);
begin
if application.MessageBox('Anda yakin data dihapus?','Peringatan',mb_YESNO or
mb_ICONQUESTION)=IDYES then
tbsy.Delete;
end;

procedure TFGrafik1.BitBtn3Click(Sender: TObject);
begin
tbsy.Insert;
tbsy['Y']:=floattostr(strtofloat(edsy.Text));
tbsy['A']:=floattostr(strtofloat(eda.Text));
tbsy['B']:=floattostr(strtofloat(edb.Text));
tbsy['C']:=edc.Text-tbsy['Y'];
```

```
tbsy['X1']:=((tbsy['B']*-1)+sqrt(tbsy['B']*tbsy['B']-
4*tbsy['A']*tbsy['C']))/(2*tbsy['A']);
tbsy['X2']:=((tbsy['B']*-1)-sqrt(tbsy['B']*tbsy['B']-
4*tbsy['A']*tbsy['C']))/(2*tbsy['A']);
end;
end.
```

3. *Listing* Program *Plotting point* antara % Kadar Aspal terhadap % VMA.

```
unit Unit1b;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, Grids, DBGrids, DB, DBTables, StdCtrls, Buttons, TeEngine,
  Series, ExtCtrls, TeeProcs, Chart, DbChart, ComCtrls;

type
  TFGrafik2 = class(TForm)
    tbmar2: TTable;
    tbsy: TTable;
    tbkdvma: TTable;
    Session1: TSession;
    Database1: TDatabase;
    dsmar: TDataSource;
    dssy: TDataSource;
    dskdvma: TDataSource;
    DBGrid1: TDBGrid;
    GroupBox1: TGroupBox;
    Label1: TLabel;
    Label2: TLabel;
    Label3: TLabel;
    Label4: TLabel;
    eda: TEdit;
    edb: TEdit;
    edc: TEdit;
    DBGrid2: TDBGrid;
    BitBtn1: TBitBtn;
    BitBtn2: TBitBtn;
    DBChart1: TDBChart;
    Series1: TFastLineSeries;
    BitBtn3: TBitBtn;
    GroupBox2: TGroupBox;
    Label5: TLabel;
    edsy: TEdit;
    DBGrid3: TDBGrid;
```

```
    BitBtn4: TBitBtn;
    BitBtn5: TBitBtn;
    StatusBar1: TStatusBar;
    procedure BitBtn1Click(Sender: TObject);
    procedure BitBtn2Click(Sender: TObject);
    procedure BitBtn4Click(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  FGrafik2: TFGrafik2;

implementation

{$R *.dfm}

procedure TFGrafik2.BitBtn1Click(Sender: TObject);
begin
if(eda.Text<>'')and(edb.Text<>'')and(edc.Text<>'')then
begin
tbkdvma.Insert;
tbkdvma['%berat thdp total camp.']:=tbmar2['%berat thdp total camp.'];
tbkdvma['VMA']:=(eda.Text*(tbkdvma['%berat thdp total camp.']*tbkdvma['%berat
thdp total camp.']))+(edb.Text*tbkdvma['%berat thdp total camp.'])+edc.Text;
end
else
Application.MessageBox('Ada data yang belum
diisi','Kesalahan',mb_OK+mb_DefButton1);
end;

procedure TFGrafik2.BitBtn2Click(Sender: TObject);
begin
if application.MessageBox('Anda yakin data dihapus?','Peringatan',mb_YESNO or
mb_ICONQUESTION)=IDYES then
tbkdvma.Delete;
end;

procedure TFGrafik2.BitBtn4Click(Sender: TObject);
begin
tbsy.Insert;
tbsy['Y']:=floattostr(strtofloat(edsy.Text));
tbsy['A']:=floattostr(strtofloat(eda.Text));
tbsy['B']:=floattostr(strtofloat(edb.Text));
tbsy['C']:=edc.Text-tbsy['Y'];
```

```
tbsy['X1']:=((tbsy['B']*-1)+sqrt(tbsy['B']*tbsy['B']-
4*tbsy['A']*tbsy['C']))/(2*tbsy['A']);
tbsy['X2']:=((tbsy['B']*-1)-sqrt(tbsy['B']*tbsy['B']-
4*tbsy['A']*tbsy['C']))/(2*tbsy['A']);
end;

end.
```

4. *Listing* Program *Plotting point* antara % Kadar Aspal terhadap stabilitas

```
unit Unit1d;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, Grids, DBGrids, DB, DBTables, StdCtrls, Buttons, TeEngine,
  Series, ExtCtrls, TeeProcs, Chart, DbChart, ComCtrls;

type
  TFGrafik4 = class(TForm)
    dsmar4: TDataSource;
    dskdst: TDataSource;
    tbmar4: TTable;
    tbkdst: TTable;
    Session1: TSession;
    Database1: TDatabase;
    DBGrid1: TDBGrid;
    DBGrid2: TDBGrid;
    BitBtn1: TBitBtn;
    BitBtn2: TBitBtn;
    BitBtn3: TBitBtn;
    DBChart1: TDBChart;
    StatusBar1: TStatusBar;
    Series1: TPointSeries;
    procedure BitBtn1Click(Sender: TObject);
    procedure BitBtn2Click(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  FGrafik4: TFGrafik4;

implementation
```

```
{$R *.dfm}

procedure TFGrafik4.BitBtn1Click(Sender: TObject);
begin
tbkdst.Insert;
tbkdst['%berat thdp total camp.']:=tbmar4['%berat thdp total camp.'];
tbkdst['Stabilitas']:=tbmar4['Koreksi volume'];
end;

procedure TFGrafik4.BitBtn2Click(Sender: TObject);
begin
if application.MessageBox('Anda yakin data dihapus?','Peringatan',mb_YESNO or
mb_ICONQUESTION)=IDYES then
tbkdst.Delete;
end;

end.
```

5. *Listing* Program *Plotting point* antara % Kadar Aspal dengan *Flow*.

```
unit Unit1;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, StdCtrls, Grids, DBGrids, DB, DBTables, Buttons, TeEngine,
  Series, ExtCtrls, TeeProcs, Chart, DbChart, ComCtrls;

type
  TFGrafik5 = class(TForm)
    tbmar5: TTable;
    tbsy: TTable;
    tbkdf: TTable;
    Database1: TDatabase;
    Session1: TSession;
    dssy: TDataSource;
    dskdf: TDataSource;
    dsmar5: TDataSource;
    DBGrid1: TDBGrid;
    GroupBox1: TGroupBox;
    Label1: TLabel;
    Label2: TLabel;
    Label3: TLabel;
    Label4: TLabel;
    eda: TEdit;
```

```
    edb: TEdit;
    edc: TEdit;
    DBGrid2: TDBGrid;
    BitBtn1: TBitBtn;
    BitBtn2: TBitBtn;
    BitBtn3: TBitBtn;
    DBChart1: TDBChart;
    Series1: TFastLineSeries;
    GroupBox2: TGroupBox;
    Label5: TLabel;
    edsy: TEdit;
    BitBtn4: TBitBtn;
    BitBtn5: TBitBtn;
    DBGrid3: TDBGrid;
    StatusBar1: TStatusBar;
    procedure BitBtn1Click(Sender: TObject);
    procedure BitBtn2Click(Sender: TObject);
    procedure BitBtn4Click(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  FGrafik5: TFGrafik5;

implementation

{$R *.dfm}

procedure TFGrafik5.BitBtn1Click(Sender: TObject);
begin
if(eda.Text<>'')and(edb.Text<>'')and(edc.Text<>'')then
begin
tbkdf.Insert;
tbkdf['%berat thdp total camp.']:=tbmar5['%berat thdp total camp.'];
tbkdf['Flow']:=(eda.Text*(tbkdf['%berat thdp total camp.']*tbkdf['%berat thdp total
camp.']))+(edb.Text*tbkdf['%berat thdp total camp.'])+edc.Text;
end
else
Application.MessageBox('Ada data yang belum
diisi','Kesalahan',mb_OK+mb_DefButton1);
end;

procedure TFGrafik5.BitBtn2Click(Sender: TObject);
begin
```

```
if application.MessageBox('Anda yakin data dihapus?','Peringatan',mb_YESNO or
mb_ICONQUESTION)=IDYES then
tbkdf.Delete;
end;

procedure TFGrafik5.BitBtn4Click(Sender: TObject);
begin
tbsy.Insert;
tbsy['Y']:=floattostr(strtofloat(edsy.Text));
tbsy['A']:=floattostr(strtofloat(eda.Text));
tbsy['B']:=floattostr(strtofloat(edb.Text));
tbsy['C']:=edc.Text-tbsy['Y'];
tbsy['X1']:=((tbsy['B']*-1)+sqrt(tbsy['B']*tbsy['B']-
4*tbsy['A']*tbsy['C']))/(2*tbsy['A']);
tbsy['X2']:=((tbsy['B']*-1)-sqrt(tbsy['B']*tbsy['B']-
4*tbsy['A']*tbsy['C']))/(2*tbsy['A']);
end;

end.
```

6. *Listing* Program *Plotting point* % Kadar Aspal dengan *Marshall Quotient*

```
unit Unit1c;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, TeEngine, Series, ExtCtrls, TeeProcs, Chart, DbChart, StdCtrls,
  Buttons, Grids, DBGrids, DB, DBTables, ComCtrls;

type
  TFGrafik3 = class(TForm)
    dsmar3: TDataSource;
    dskdbervol: TDataSource;
    tbkdbervol: TTable;
    tbmar3: TTable;
    Session1: TSession;
    Database1: TDatabase;
    DBGrid1: TDBGrid;
    DBGrid2: TDBGrid;
    BitBtn1: TBitBtn;
    BitBtn2: TBitBtn;
    BitBtn3: TBitBtn;
    DBChart1: TDBChart;
    StatusBar1: TStatusBar;
    Series1: TPointSeries;
```

```
    procedure BitBtn1Click(Sender: TObject);
    procedure BitBtn2Click(Sender: TObject);
  private
    { Private declarations }
  public
    { Public declarations }
  end;

var
  FGrafik3: TFGrafik3;

implementation

{$R *.dfm}

procedure TFGrafik3.BitBtn1Click(Sender: TObject);
begin

tbkdbervol.Insert;
tbkdbervol['%berat thdp total camp.']:=tbmar3['%berat thdp total camp.'];
tbkdbervol['Marshall Quotient']:=tbmar3['Marshall Quotient'];
end;

procedure TFGrafik3.BitBtn2Click(Sender: TObject);
begin
if application.MessageBox('Anda yakin data dihapus?','Peringatan',mb_YESNO or
mb_ICONQUESTION)=IDYES then
tbkdbervol.Delete;
end;
end.
```

7. *Listing* Program Kadar Aspal Optimum.

```
unit Unit1;

interface

uses
  Windows, Messages, SysUtils, Variants, Classes, Graphics, Controls, Forms,
  Dialogs, DB, DBTables, Grids, DBGrids, StdCtrls, ComCtrls, ExtCtrls,
  TeeProcs, TeEngine, Chart, Buttons, Series;

type
  TFkadar = class(TForm)
    StatusBar1: TStatusBar;
    GroupBox1: TGroupBox;
    DBGrid1: TDBGrid;
    tbsy1: TTable;
```

```
  tbsy2: TTable;
  tbsy3: TTable;
  dssy1: TDataSource;
  dssy2: TDataSource;
  dssy3: TDataSource;
  GroupBox2: TGroupBox;
  GroupBox3: TGroupBox;
  DBGrid2: TDBGrid;
  DBGrid3: TDBGrid;
  GroupBox4: TGroupBox;
  Label1: TLabel;
  Label2: TLabel;
  Label3: TLabel;
  Label4: TLabel;
  Label5: TLabel;
  Label6: TLabel;
  Label7: TLabel;
  Label8: TLabel;
  Label9: TLabel;
  Label10: TLabel;
  Label11: TLabel;
  Label12: TLabel;
  Edit1: TEdit;
  Edit2: TEdit;
  Edit3: TEdit;
  Edit4: TEdit;
  Edit5: TEdit;
  Edit6: TEdit;
  Edit7: TEdit;
  Edit8: TEdit;
  BitBtn1: TBitBtn;
  BitBtn2: TBitBtn;
  Chart1: TChart;
  Series1: THorizBarSeries;
  Series2: THorizBarSeries;
  Series3: THorizBarSeries;
  Series4: THorizBarSeries;
  Series5: THorizBarSeries;
  Series6: THorizBarSeries;
  Series7: THorizBarSeries;
  Series8: THorizBarSeries;
  procedure BitBtn1Click(Sender: TObject);
private
  { Private declarations }
public
  { Public declarations }
end;
```

```
var
  Fkadar: TFkadar;

implementation

{$R *.dfm}

procedure TFkadar.BitBtn1Click(Sender: TObject);
begin
series1.AddBar(strtofloat(Edit1.Text),'Stabilitas',clred);
series2.AddBar(strtofloat(Edit2.Text),'',clltgray);
series3.AddBar(strtofloat(Edit3.Text),'Flow',clblue);
series4.AddBar(strtofloat(Edit4.Text),'',clltgray);
series5.AddBar(strtofloat(Edit5.Text),'VIM',clyellow);
series6.AddBar(strtofloat(Edit6.Text),'',clltgray);
series7.AddBar(strtofloat(Edit7.Text),'VMA',clnavy);
series8.AddBar(strtofloat(Edit8.Text),'',clltgray);
end;

end.
```

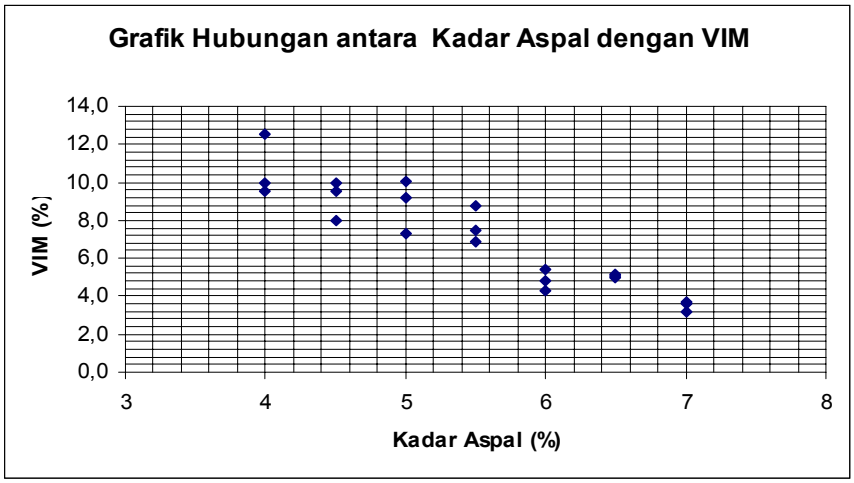
8. *Listing* Program Regresi

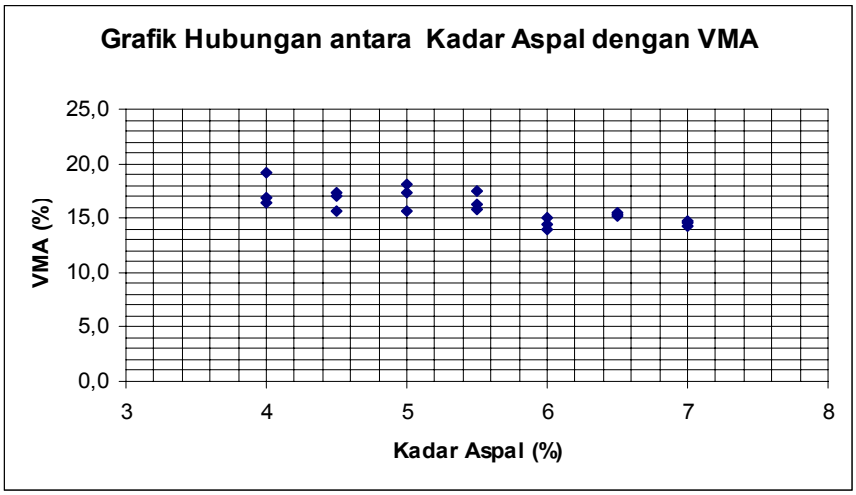
```
program Project1;

{$APPTYPE CONSOLE}

uses
  SysUtils;

var
  x,y   : array [0..10] of real;
  xp,yp : real;
  n,M   : integer;
  sum_x : array [0..20] of real;
  sum,c   : array [0..10,0..10] of real;
  a,b   : array [0..10] of real;
  i,j,k : integer;
  g     : array [0..10,0..11] of real;
  dummy, factor   : real;
procedure simultan;//(n :integer; A :array [0..10,0..10] of real;var b : array [0..10] of
real) ;
begin
  { TODO -oUser -cConsole Main : Insert code here }
  for i:=0 to n-1 do
    for j:=0 to n-1 do
      g[i][j] := c[i][j];
```

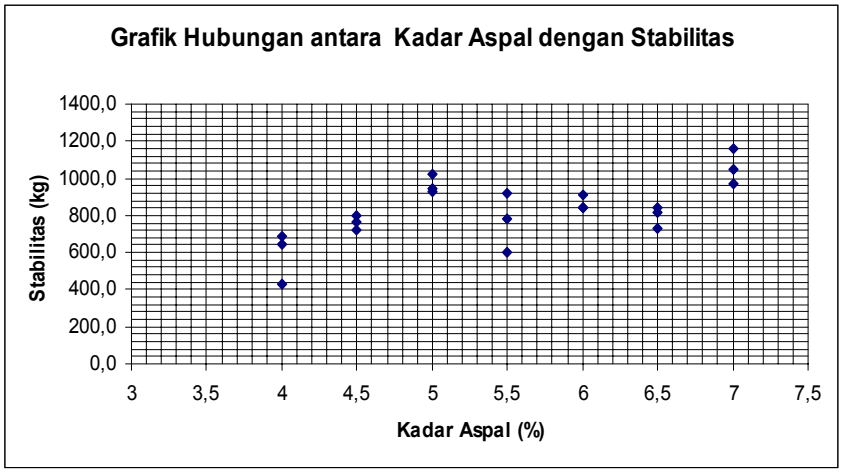
```
  for j:=0 to n-1 do
    g[j][n] := b[j];

  for i:=0 to n-1 do
  begin
    dummy := abs(g[i][i]);
    k := i;
    for j:=i+1 to n-1 do
      if abs (g[j][i])>dummy then
      begin
        dummy := abs(g[j][i]);
        k := j;
      end;
    if k <> i then
      for j:=i to n do
      begin
        dummy := g[k][j];
        g[k][j] := g[i][j];
        g[i][j] := dummy;
      end;
    for j:=i to n-1 do
    begin
        if i <> j then
        begin
          factor := g[j][i]/g[i][i];
          for k:=i to n do
          g[j][k] := g[j][k] - factor * g[i][k];
        end;
    end;
    end;
    for i:=0 to n-1 do b[i] := g[i][n]/g[i][i];
  end;

function pow(x : real; n : integer) : real;
var
  i : integer;
  p : real;
begin
  p := 1;
  if n > 0 then for i:=1 to n do p := p * x;
  pow := p;
end;

begin
  write('jumlah data :');
  readln(n);

  for i:=0 to n-1 do
```

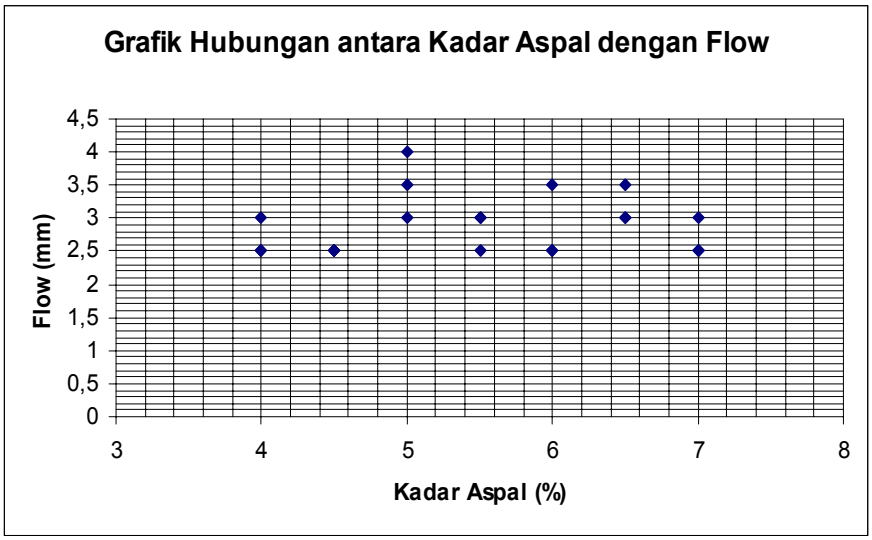
```
  begin
    write('x[',i+1:2,'], y[',i+1:2,'] =');
    read(x[i], y[i]);
  end;

  write('ordo polinomial :');
  read(M);

  for i:=0 to 2*M do
    sum_x[i] := 0;
    sum_x[0] := n;

  for i:=0 to n-1 do
    for j:=1 to 2*M do
      sum_x[j] := sum_x[j] + pow(x[i],j);

  for i:=0 to M do
    for j:=0 to M do
      sum[i][j] := sum_x[i+j];

  a[0] := 0;
  for j:=0 to n-1 do
    a[0] := a[0] + y[j];

  for i:=1 to M do
  begin
    a[i] := 0;
    for j:=0 to n-1 do
    a[i] := a[i] + pow(x[j],i) * y[j];
  end;

  //simultan(M+1,sum,a);
  writeln('koefisien fungsi regresi polinomial :');
  for i:=0 to M do
  writeln('a[',i:2,'] =',a[i]:10:5);

  write('input harga x :');
  read(xp);

  yp := a[0];
    for i:=1 to M do
    yp := yp + a[i] * pow(xp,i);

  writeln('Nilai y :', yp:10:5);

end.
```

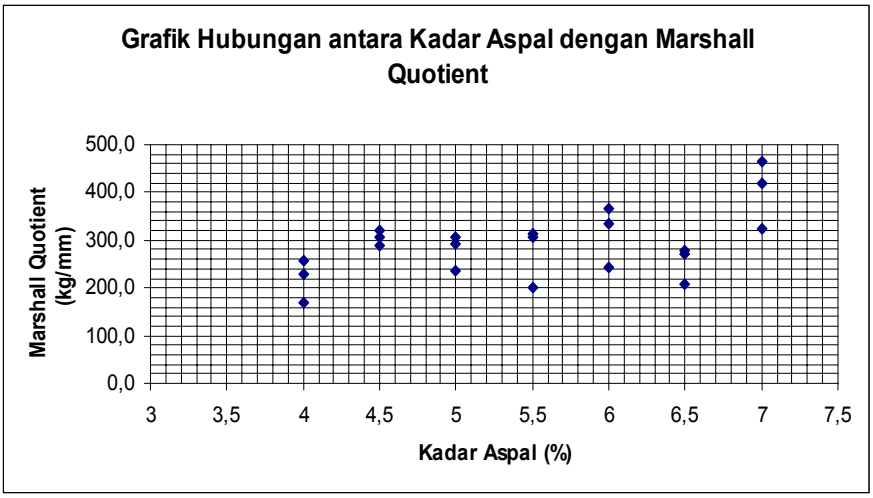
Lampiran 2 Grafik Hubungan Kadar Aspal dengan Parameter Marshall

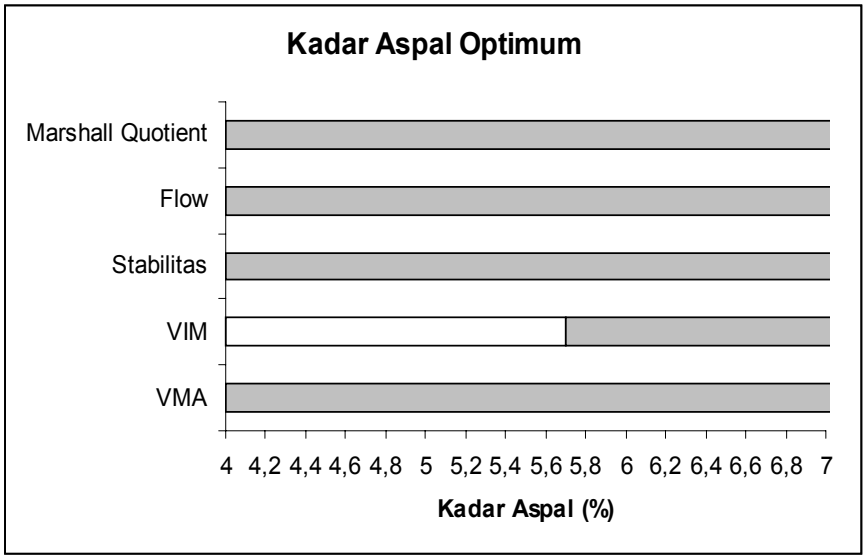







Grafik Hubungan antara Kadar Aspal dengan Flow
Flow (mm)
4,5
4
3,5
3
2,5
2
1,5
1
0,5
0
3
4
5
6
7
8
Kadar Aspal (%)


Grafik Hubungan antara Kadar Aspal dengan Marshall Quotient
Marshall Quotient (kg/mm)
500,0
400,0
300,0
200,0
100,0
0,0
3
3,5
4
4,5
5
5,5
6
6,5
7
7,5
Kadar Aspal (%)



$$\text{Kadar Aspal Optimum} = \frac{5,7 + 6,7}{2} = 6,2\,\%$$

Lampiran 3 Tabel Persyaratan Campuran Beton Aspal

Sifat Campuran	L.L Berat (2 x 75) Tumbukan		L.L Sedang (2 x 50) Tumbukan		L.L Ringan (3 x 35) Tumbukan	
	Min	Maks	Min	Maks	Min	Maks
Stabilitas(kg)	550	-	450	-	350	-
Flow (mm)	2	4	2	4,5	2	5
Stabilitas/Flow(kg/mm)	200	350	200	350	200	350
VIM (%)	3	5	3	5	3	5
VMA(%)	Lihat lampiran 4					

Catatan:

1. VIM dihitung berdasarkan G_{mm} atau berdasarkan G_{mm} menurut AASHTO T209-82
2. VMA ditetapkan berdasarkan G_{sb} dari agregat.
3. Kepadatan Lalu Lintas
   Berat = lebih besar 500 UE 18 KSAL/hari/jalur.
   Sedang = 50 sampai 500 UE 18 KSAL/hari/jalur.
   Ringan = lebih kecil 50 UE 18 KSAL/hari/jalur.

Lampiran 4 Tabel Persyaratan VMA

Ukuran Maksimum Nominal Agregat		Persentase VMA (%)
No. 16	1,18 mm	23,5

No.8	2,36 mm	21
No.4	4,75 mm	18
3/8 inch	9,50 mm	16
½ inch	12,50 mm	15
¾ inch	19,00 mm	14
1 inch	25,00 mm	13
1,5 inch	37,50 mm	12
2 inch	50,00 mm	11,5
2,5 inch	63,00 mm	11

Lampiran 5 Tabel Angka Koreksi Stabilitas

Isi Benda Uji cm3	Tinggi Benda Uji		Angka Koreksi
	Inchi	mm	
200-213	1	25,4	5,56
214-225	1 1/16	27,0	5,00
226-237	1 1/8	28,6	4,55
238-250	1 3/16	30,2	4,17
252-264	1 1/4	31,8	3,86
265-276	1 5/16	33,3	3,57
277-289	1 3/8	34,9	3,33
290-301	1 7/16	36,5	3,03
302-316	1 1/2	38,1	2,78
317-328	1 9/16	39,7	2,50
329-340	1 5/8	41,3	2,27
342-353	1 11/16	42,9	2,08
354-367	1 3/4	44,4	1,92
368-379	1 13/16	46,0	1,79
380-392	1 7/8	47,6	1,67
393-405	1 15/16	49,2	1,56
406-420	2	50,8	1,47
422-431	2 1/16	52,4	1,39
432-443	2 1/8	54,0	1,32
444-456	2 3/16	55,6	1,25
457-470	2 1/4	57,2	1,19
472-482	2 5/16	58,7	1,14
483-495	2 3/8	60,3	1,09
496-508	2 7/16	61,9	1,04
509-522	2 1/2	63,5	1,00
523-535	2 9/16	64,0	0,96
536-546	2 5/8	65,1	0,93
547-559	2 11/16	66,7	0,89
560-573	2 3/4	68,3	0,86
574-585	2 13/16	71,4	0,83
586-598	2 7/8	73,0	0,81
599-610	2 15/16	74,6	0,78
612-625	3	76,2	0,76

Lampiran 6 Distribusi t Student

df	Tingkat signifikansi uji satu arah					
	0,10	0,05	0,025	0,01	0,005	0,0005
	Tingkat signifikansi uji dua arah					
	0,20	0,10	0,05	0,02	0,01	0,001
1	3,078	6,314	12,706	31,821	63,657	636,619
2	1,886	2,920	4,303	6,965	9,925	31,599
3	1,638	2,353	3,182	4,541	5,841	12,924
4	1,533	2,132	2,776	3,747	4,604	8,610
5	1,476	2,015	2,571	3,365	4,032	6,869
6	1,440	1,943	2,447	3,143	3,707	5,959
7	1,415	1,895	2,365	2,998	3,499	5,408
8	1,397	1,860	2,306	2,896	3,355	5,041
9	1,383	1,833	2,262	2,821	3,250	4,781
10	1,372	1,812	2,228	2,764	3,169	4,587
11	1,363	1,796	2,201	2,718	3,106	4,437
12	1,356	1,782	2,179	2,681	3,055	4,318
13	1,350	1,771	2,160	2,650	3,012	4,221
14	1,345	1,761	2,145	2,624	2,977	4,140
15	1,341	1,753	2,131	2,602	2,947	4,073
16	1,337	1,746	2,120	2,583	2,921	4,015
17	1,333	1,740	2,110	2,567	2,898	3,965
18	1,330	1,734	2,101	2,552	2,878	3,922
19	1,328	1,729	2,093	2,539	2,861	3,883
20	1,325	1,725	2,086	2,528	2,845	3,850
21	1,323	1,721	2,080	2,518	2,831	3,819
22	1,321	1,717	2,074	2,508	2,819	3,792
23	1,319	1,714	2,069	2,500	2,807	3,768
24	1,318	1,711	2,064	2,492	2,797	3,745
25	1,316	1,708	2,060	2,485	2,787	3,725
26	1,315	1,706	2,056	2,479	2,779	3,707
27	1,314	1,703	2,052	2,473	2,771	3,690
28	1,313	1,701	2,048	2,467	2,763	3,674
29	1,311	1,699	2,045	2,462	2,756	3,659
30	1,310	1,697	2,042	2,457	2,750	3,646
40	1,303	1,684	2,021	2,423	2,704	3,551
60	1,296	1,671	2,000	2,390	2,660	3,460
120	1,289	1,658	1,980	2,358	2,617	3,373
∞	1,282	1,645	1,960	2,326	2,576	3,291