DATO IL SEGUENTE PROGRAMMA MPLUS

```
TITLE:  ESERCIZIO EX LISREL
DATA:
FILE IS EX34.DAT;
TYPE IS CORRELATION;
NOBSERVATION IS 145;
VARIABLE:
NAMES ARE X1-X6 Y1-Y3;
MODEL:
KSI1 BY X1-X3 ;
KSI2 BY X4-X6 ;
ETA1 BY Y1-Y3;
ETA1 ON KSI1 KSI2;
KSI2 ON KSI1;
output: standardized sampstat tech1 modindices(3.84);
```

A) COSTRUIRE LA FIGURA RELATIVA AL DIAGRAMMA DEL MODELLO (2 punti)

B) CALCOLARE I GRADI DI LIBERTA' DEL MODELLO (2 punti)

DATO IL SEGUENTE PROGRAMMA MPLUS

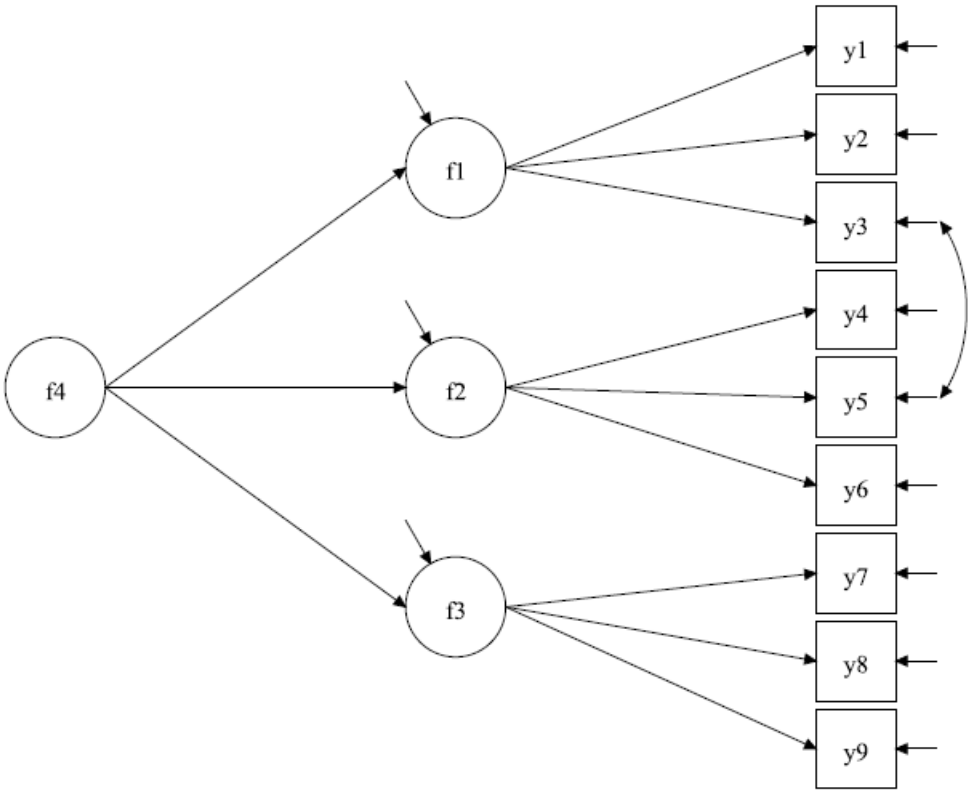
```
TITLE:  ESERCIZIO EX LISREL RIVISTO
DATA:
FILE IS EX34.DAT;
TYPE IS CORRELATION;
NOBSERVATION IS 145;
VARIABLE:
NAMES ARE X1-X3 Y1-Y6;
MODEL:
KSI  BY X1-X3 ;
ETA1 BY Y1-Y3;
ETA2 BY Y4-Y6;
ETA2 ON ETA1 (1);
ETA1 ON KSI  (1);

output: standardized sampstat tech1 modindices(3.84);
```

A) COSTRUIRE LA FIGURA RELATIVA AL DIAGRAMMA DEL MODELLO (2 punti)

B) CALCOLARE I GRADI DI LIBERTA' DEL MODELLO (2 punti)

DATA LA SEGUENTE RAPPRESENTAZIONE DIAGRAMMATICA DI UN MODELLO MPLUS



SCRIVERE IL PROGRAMMA MPLUS RELATIVO AL MODELLO (SEZIONE "VARIABLES:" E SEZIONE "MODEL:" DEL FILE DI INPUT)(5 PUNTI)

DI SEGUITO VIENE PRESENTATO UN ESTRATTO DI UN OUTPUT DI UN MODELLO DI EQUAZIONI STRUTTURALI EFFETTUATO CON IL PROGRAMMA MPLUS.

A) INDICARE I PARAMETRI CHE RISULTANO STATISTICAMENTE SIGNIFICATIVI, SPECIFICANDO PERCHE' (1 PUNTO)

STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
TOLERAN BY				
TOL1	0.635	0.036	17.565	0.000
TOL2	0.815	0.025	32.920	0.000
TOL3	0.773	0.027	28.312	0.000
TOL4	0.810	0.025	32.352	0.000
COSTOFE BY				
COE1	0.771	0.037	20.924	0.000
COE2	0.780	0.037	21.287	0.000
COE3	0.529	0.046	11.591	0.000
FLEXIBI BY				
FLEX1	0.748	0.030	25.201	0.000
FLEX2	0.869	0.024	36.610	0.000
FLEX3	0.699	0.033	21.457	0.000
SOLIDAR BY				
SOL1	0.793	0.032	24.853	0.000
SOL2	0.875	0.030	28.855	0.000
SOL3	0.305	0.052	5.831	0.000
INFOEXC BY				
EXCH1	0.827	0.027	30.985	0.000
EXCH2	0.772	0.029	26.410	0.000
EXCH3	0.710	0.033	21.727	0.000
DEPENDE BY				
DEP1	0.796	0.023	34.471	0.000
DEP2	0.868	0.018	48.185	0.000
DEP3	0.852	0.019	44.522	0.000
DEP4	0.531	0.041	13.018	0.000
DEP5	0.678	0.032	21.386	0.000
COSTOFE WITH				
TOLERAN	-0.414	0.056	-7.392	0.000
FLEXIBI WITH				
TOLERAN	-0.130	0.061	-2.133	0.033
COSTOFE	0.242	0.062	3.884	0.000
SOLIDAR WITH				
TOLERAN	-0.075	0.062	-1.216	0.224
COSTOFE	0.178	0.064	2.782	0.005
FLEXIBI	0.607	0.045	13.573	0.000
INFOEXC WITH				
TOLERAN	-0.065	0.062	-1.041	0.298
COSTOFE	0.085	0.066	1.297	0.195
FLEXIBI	0.603	0.045	13.380	0.000
SOLIDAR	0.534	0.049	10.830	0.000
DEPENDE WITH				
TOLERAN	-0.291	0.056	-5.234	0.000
COSTOFE	0.427	0.054	7.899	0.000
FLEXIBI	0.400	0.052	7.640	0.000
SOLIDAR	0.324	0.056	5.832	0.000
INFOEXC	0.384	0.054	7.157	0.000

R-SQUARE

Observed Variable	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
TOL1	0.404	0.046	8.782	0.000
TOL2	0.664	0.040	16.460	0.000
TOL3	0.597	0.042	14.156	0.000
TOL4	0.656	0.041	16.176	0.000
COE1	0.594	0.057	10.462	0.000
COE2	0.609	0.057	10.643	0.000
COE3	0.280	0.048	5.796	0.000
FLEX1	0.559	0.044	12.601	0.000
FLEX2	0.754	0.041	18.305	0.000
FLEX3	0.489	0.046	10.728	0.000
SOL1	0.629	0.051	12.426	0.000
SOL2	0.765	0.053	14.427	0.000
SOL3	0.093	0.032	2.916	0.004
EXCH1	0.683	0.044	15.492	0.000
EXCH2	0.597	0.045	13.205	0.000
EXCH3	0.504	0.046	10.863	0.000
DEP1	0.634	0.037	17.235	0.000
DEP2	0.754	0.031	24.092	0.000
DEP3	0.725	0.033	22.261	0.000
DEP4	0.282	0.043	6.509	0.000
DEP5	0.459	0.043	10.693	0.000

INDICARE NELL'OUTPUT COSA RAPPRESENTANO(1 PUNTO):

B.1. I COEFFICIENTI NELLA SEZIONE "BY" _____

B.2. I COEFFICIENTI NELLA SEZIONE "WITH" _____

B.3. I COEFFICIENTI NELLA SEZIONE " R-SQUARE"_____

C) VALUTARE LA BONTA' DELL'ADATTAMENTO DEL MODELLO CONSIDERANDO I PRINCIPALI INDICI DI FIT (1 PUNTO)

(NB: Il campione è composto da 361 soggetti)

MODEL FIT INFORMATION

Chi-Square Test of Model Fit

Value	352.301
Degrees of Freedom	174
P-Value	0.0000

RMSEA (Root Mean Square Error Of Approximation)

Estimate	0.053	
90 Percent C.I.	0.045	0.061
Probability RMSEA <= .05	0.243	

CFI/TLI

CFI	0.945
TLI	0.934

SRMR (Standardized Root Mean Square Residual)

Value	0.052

_____

_____

_____

_____

_____

_____

D) ESAMINARE I MODIFICATION INDICES, PROPONENDO EVENTUALI MODIFICHE AL MODELLO (1 PUNTO)

Minimum M.I. value for printing the modification index 3.840

		M.I.	E.P.C.	Std E.P.C.	StdYX E.P.C.
BY Statements					
TOLERAN	BY COE2	5.142	0.239	0.239	0.138
TOLERAN	BY COE3	10.889	-0.406	-0.406	-0.195
TOLERAN	BY FLEX3	4.999	0.143	0.143	0.101
TOLERAN	BY DEP1	10.201	0.281	0.281	0.130
TOLERAN	BY DEP2	10.677	-0.255	-0.255	-0.122
TOLERAN	BY DEP3	3.946	0.164	0.164	0.075
TOLERAN	BY DEP4	4.610	-0.235	-0.235	-0.112
COSTOFE	BY EXCH2	5.406	-0.183	-0.183	-0.107
COSTOFE	BY EXCH3	4.262	0.150	0.150	0.098
FLEXIBI	BY DEP1	7.123	0.250	0.250	0.116
FLEXIBI	BY DEP5	5.901	0.239	0.239	0.120
SOLIDAR	BY TOL1	4.185	-0.185	-0.185	-0.096
SOLIDAR	BY TOL3	6.542	0.214	0.214	0.107
SOLIDAR	BY FLEX1	5.648	-0.223	-0.223	-0.155
SOLIDAR	BY FLEX2	10.238	-0.322	-0.322	-0.223
SOLIDAR	BY FLEX3	39.775	0.583	0.583	0.414
SOLIDAR	BY EXCH2	5.211	-0.234	-0.234	-0.136
SOLIDAR	BY DEP1	11.222	0.302	0.302	0.140
SOLIDAR	BY DEP3	8.321	-0.244	-0.244	-0.112
SOLIDAR	BY DEP5	8.854	0.282	0.282	0.142
INFOEXC	BY TOL3	7.152	0.224	0.224	0.113
INFOEXC	BY FLEX3	9.699	0.288	0.288	0.204
INFOEXC	BY DEP1	7.290	0.253	0.253	0.117
INFOEXC	BY DEP3	11.459	-0.298	-0.298	-0.137
INFOEXC	BY DEP5	7.194	0.264	0.264	0.133
WITH Statements					
TOL2	WITH TOL1	8.910	0.395	0.395	0.230
TOL3	WITH TOL1	9.168	-0.397	-0.397	-0.211
TOL4	WITH TOL2	6.273	-0.406	-0.406	-0.311
TOL4	WITH TOL3	9.397	0.461	0.461	0.323
COE1	WITH TOL3	4.170	-0.222	-0.222	-0.146
COE2	WITH COE1	7.851	0.886	0.886	0.682
COE3	WITH TOL1	4.933	-0.336	-0.336	-0.128
FLEX1	WITH COE3	6.473	0.261	0.261	0.154
FLEX2	WITH FLEX1	25.163	0.524	0.524	0.764
FLEX3	WITH FLEX1	7.820	-0.216	-0.216	-0.224
FLEX3	WITH FLEX2	3.877	-0.180	-0.180	-0.249
SOL1	WITH FLEX3	20.748	0.321	0.321	0.302
EXCH2	WITH SOL3	6.566	0.308	0.308	0.155
EXCH3	WITH FLEX1	3.846	-0.129	-0.129	-0.125
EXCH3	WITH EXCH1	4.560	-0.241	-0.241	-0.250
DEP2	WITH TOL4	10.548	-0.281	-0.281	-0.239
DEP2	WITH FLEX1	5.147	-0.157	-0.157	-0.158
DEP3	WITH TOL2	12.642	-0.337	-0.337	-0.256
DEP3	WITH TOL4	16.175	0.369	0.369	0.288
DEP3	WITH SOL1	5.583	-0.201	-0.201	-0.168
DEP3	WITH EXCH2	4.960	-0.194	-0.194	-0.157
DEP4	WITH FLEX3	11.055	-0.345	-0.345	-0.192
DEP4	WITH DEP1	15.710	-0.566	-0.566	-0.242
DEP5	WITH TOL2	4.724	0.238	0.238	0.140
DEP5	WITH DEP1	5.413	0.289	0.289	0.151
DEP5	WITH DEP2	10.470	-0.374	-0.374	-0.246