=== Run information ===

Scheme: weka.classifiers.trees.J48 -C 0.25 -M 2

Relation: PassFail-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.Randomize-S42-weka.filters.unsupervised.instance.RemovePercentage-P20.0-V

Instances: 79

Attributes: 25

sex

age

address

famsize

Pstatus

Medu

Fedu

traveltime

studytime

failures

schoolsup

famsup

paid

activities

higher

internet

romantic

famrel

freetime

goout

Dalc

Walc

health

absences

G

Test mode: 10-fold cross-validation

=== Classifier model (full training set) ===

J48 pruned tree

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failures <= 1

| Walc = very low: Pass (31.0/8.0)

| Walc = average: Pass (10.0)

| Walc = low

| | famsup = no: Pass (5.0)

| | famsup = yes

| | | studytime = 2 to 5 hours

| | | | age <= 15: Pass (2.0)

| | | | age > 15: Fail (6.0/1.0)

| | | studytime = 5 to 10 hours: Pass (3.0)

| | | studytime = <2 hours: Fail (2.0)

| | | studytime = 10 hours: Fail (0.0)

| Walc = high

| | failures <= 0: Pass (9.0/3.0)

| | failures > 0: Fail (3.0)

| Walc = very high: Fail (4.0/1.0)

failures > 1: Fail (4.0)

Number of Leaves : 12

Size of the tree : 18

Time taken to build model: 0 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 43 54.4304 %

Incorrectly Classified Instances 36 45.5696 %

Kappa statistic -0.0644

Mean absolute error 0.4504

Root mean squared error 0.5917

Relative absolute error 98.0953 %

Root relative squared error 123.584 %

Total Number of Instances 79

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0.214 0.275 0.300 0.214 0.250 -0.066 0.511 0.345 Fail

0.725 0.786 0.627 0.725 0.673 -0.066 0.511 0.672 Pass

Weighted Avg. 0.544 0.605 0.511 0.544 0.523 -0.066 0.511 0.556

=== Confusion Matrix ===

a b <-- classified as

6 22 | a = Fail

14 37 | b = Pass