=== Run information ===

Scheme: weka.classifiers.trees.J48 -C 5.0E-8 -M 2

Relation: train\_test\_data4

Instances: 21684

Attributes: 35

p1

p2

p3

p4

p5

p6

p7

p8

p9

p10

p11

p12

p13

p14

p15

p16

p17

p18

p19

p20

p21

p22

p23

p24

p25

p26

p27

p28

p29

p30

p31

p32

p33

p34

label

Test mode: 10-fold cross-validation

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

J48 pruned tree

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p20 <= 0.032967: FALSE (7193.0/412.0)

p20 > 0.032967

| p8 <= 0.078869

| | p4 <= 0.026099: TRUE (3448.0/664.0)

| | p4 > 0.026099

| | | p16 <= 0.153571

| | | | p17 <= 0.089286

| | | | | p12 <= 0.089286

| | | | | | p13 <= 0.082792

| | | | | | | p17 <= 0.076786

| | | | | | | | p33 <= 0.1

| | | | | | | | | p17 <= 0.060714: FALSE (10.0)

| | | | | | | | | p17 > 0.060714: TRUE (95.0/34.0)

| | | | | | | | p33 > 0.1: FALSE (281.0/59.0)

| | | | | | | p17 > 0.076786

| | | | | | | | p16 <= 0.085714

| | | | | | | | | p13 <= 0.074675: TRUE (24.0/7.0)

| | | | | | | | | p13 > 0.074675: FALSE (45.0/4.0)

| | | | | | | | p16 > 0.085714

| | | | | | | | | p12 <= 0.084416: TRUE (395.0/91.0)

| | | | | | | | | p12 > 0.084416

| | | | | | | | | | p13 <= 0.077922

| | | | | | | | | | | p33 <= 0.110714: TRUE (6.0/1.0)

| | | | | | | | | | | p33 > 0.110714

| | | | | | | | | | | | p18 <= 0.0875: FALSE (48.0)

| | | | | | | | | | | | p18 > 0.0875: TRUE (14.0/4.0)

| | | | | | | | | | p13 > 0.077922: TRUE (79.0/26.0)

| | | | | | p13 > 0.082792

| | | | | | | p12 <= 0.086039: FALSE (83.0)

| | | | | | | p12 > 0.086039

| | | | | | | | p13 <= 0.089286

| | | | | | | | | p17 <= 0.083929: FALSE (9.0/2.0)

| | | | | | | | | p17 > 0.083929

| | | | | | | | | | p15 <= 0.773214: TRUE (16.0/1.0)

| | | | | | | | | | p15 > 0.773214: FALSE (2.0)

| | | | | | | | p13 > 0.089286: FALSE (12.0)

| | | | | p12 > 0.089286: FALSE (493.0/28.0)

| | | | p17 > 0.089286

| | | | | p33 <= 0.123214

| | | | | | p17 <= 0.132143: TRUE (1307.0/272.0)

| | | | | | p17 > 0.132143

| | | | | | | p16 <= 0.139286: FALSE (22.0/1.0)

| | | | | | | p16 > 0.139286: TRUE (14.0/1.0)

| | | | | p33 > 0.123214

| | | | | | p25 <= 0.075893: FALSE (531.0/144.0)

| | | | | | p25 > 0.075893

| | | | | | | p12 <= 0.095779

| | | | | | | | p9 <= 0.068452

| | | | | | | | | p9 <= 0.053571

| | | | | | | | | | p8 <= 0.053571: TRUE (5.0)

| | | | | | | | | | p8 > 0.053571

| | | | | | | | | | | p32 <= 0.175: FALSE (22.0)

| | | | | | | | | | | p32 > 0.175: TRUE (3.0)

| | | | | | | | | p9 > 0.053571: TRUE (707.0/172.0)

| | | | | | | | p9 > 0.068452: FALSE (34.0/6.0)

| | | | | | | p12 > 0.095779

| | | | | | | | p17 <= 0.107143: FALSE (650.0/115.0)

| | | | | | | | p17 > 0.107143

| | | | | | | | | p9 <= 0.061012: FALSE (27.0/4.0)

| | | | | | | | | p9 > 0.061012

| | | | | | | | | | p24 <= 0.092262

| | | | | | | | | | | p16 <= 0.119643

| | | | | | | | | | | | p13 <= 0.102273: TRUE (19.0/5.0)

| | | | | | | | | | | | p13 > 0.102273: FALSE (30.0/2.0)

| | | | | | | | | | | p16 > 0.119643: TRUE (853.0/225.0)

| | | | | | | | | | p24 > 0.092262: FALSE (183.0/48.0)

| | | p16 > 0.153571

| | | | p17 <= 0.1375: FALSE (268.0/19.0)

| | | | p17 > 0.1375

| | | | | p28 <= 0.137987

| | | | | | p9 <= 0.080357

| | | | | | | p13 <= 0.108766: FALSE (2.0)

| | | | | | | p13 > 0.108766: TRUE (34.0/5.0)

| | | | | | p9 > 0.080357: FALSE (3.0)

| | | | | p28 > 0.137987: FALSE (14.0)

| p8 > 0.078869: FALSE (4703.0/469.0)

Number of Leaves : 39

Size of the tree : 77

Time taken to build model: 1.41 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 18629 85.9113 %

Incorrectly Classified Instances 3055 14.0887 %

Kappa statistic 0.6761

Mean absolute error 0.2197

Root mean squared error 0.337

Relative absolute error 50.9325 %

Root relative squared error 72.5721 %

Total Number of Instances 21684

=== Detailed Accuracy By Class ===

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

0.792 0.110 0.768 0.792 0.780 0.676 0.875 0.741 TRUE

0.890 0.208 0.903 0.890 0.896 0.676 0.875 0.917 FALSE

Weighted Avg. 0.859 0.177 0.860 0.859 0.860 0.676 0.875 0.861

=== Confusion Matrix ===

a b <-- classified as

5403 1421 | a = TRUE

1634 13226 | b = FALSE