```
Sex 的缺失值数量: 0
Age 的缺失值数量: 177
SibSp 的缺失值数量: 0
Parch 的缺失值数量: 0
Fare 的缺失值数量: 0
Embarked 的缺失值数量: 2
Pclass 的缺失值数量: 0
Sex 的缺失值数量: 0
Age 的缺失值数量: 86
SibSp 的缺失值数量: 0
Parch 的缺失值数量: 0
Fare 的缺失值数量: 1
Embarked 的缺失值数量: 0
D:/代码/大二/Python/Titanic生存预测.py:37: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 return series
D:/代码/大二/Python/Titanic生存预测.py:39: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
 test['Sex']=deal_sex(test['Sex'])
D:/代码/大二/Python/Titanic生存预测.py:51: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 test['Embarked']=deal_embarked(test['Embarked'])
D:/代码/大二/Python/Titanic生存预测.py:47: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 elif(series[i]=='S'):
D:/代码/大二/Python/Titanic生存预测.py:49: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 return series
完成sex和embarked转化成数值类型的属性
train的embarked众数: 0
dtype: object
test的fare众数: 0
dtype: float64
完成Embarked缺失插值
完成Fare缺失插值
随机森林预测train年龄并插值完毕
随机森林预测test年龄并插值完毕
D:/代码/大二/Python/Titanic生存预测.py:99: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 test['Sex']=deal_sex(test['Sex'])
D:/代码/大二/Python/Titanic生存预测.py:101: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 def deal_embarked(series):
D:/代码/大二/Python/Titanic生存预测.py:113: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 train=pd.get_dummies(train,columns=['Sex','Embarked'])
D:\Tools\Anaconda3\lib\site-packages\pandas\core\indexing.py:189: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 self._setitem_with_indexer(indexer, value)
D:/代码/大二/Python/Titanic生存预测.py:109: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-copy
 return series
D:/代码/大二/Python/Titanic生存预测.py:111: SettingWithCopyWarning:
A value is trying to be set on a copy of a slice from a DataFrame
See the caveats in the documentation: http://pandas.pydata.org/pandas-docs/stable/indexing.html#indexing-view-
versus-conv
 test['Embarked']=deal_embarked(test['Embarked'])
完成将数值类型属性转化为原始属性
完成对sex和embarked的哑变量处理
完成将train和test的相关数据的标准差标准化
建立的SVM模型为:
SVC(C=1.0, cache_size=200, class_weight=None, coef0=0.0,
 decision_function_shape='ovr', degree=3, gamma='auto', kernel='rbf',
 max_iter=-1, probability=False, random_state=None, shrinking=True,
 tol=0.001, verbose=False)
已保存预测结果
预测对的结果数目为:752
预测错的的结果数目为: 139
预测结果准确率为: 0.8439955106621774
使用SVM预测breast cancer数据的准确率为: 0.8439955106621774
使用SVM预测breast_cancer数据的精确率为: 0.8918918918918919
使用SVM预测breast_cancer数据的召回率为: 0.6754385964912281
使用SVM预测breast_cancer数据的F1值为: 0.7687188019966723
使用SVM预测breast_cancer数据的Cohen's Kappa系数为: 0.6543764912721336
绘制ROC曲线
D:\Tools\Anaconda3\lib\site-packages\sklearn\utils\validation.py:578: DataConversionWarning: A column-vector y was
passed when a 1d array was expected. Please change the shape of y to (n_samples, ), for example using ravel().
 y = column_or_1d(y, warn=True)
  1.0
 0.8
Rate)
(True Postive
```

In [**57**]:

假阳率(False Postive Rate)

Pclass 的缺失值数量: 0

