Ground Truth Code

```
def check CU 10 19 2(df):
  # Initialize marker columns
  df['CU 10 19 2 subject'] = True
  df['CU 10 19 2 condition'] = False
  df['CU 10 19 2 constraint'] = None
  # Calculate the high bonus share (high transfer) plan condition (total
  ratio of bonus shares + capitalization \geq 5 per 10 shares)
  total sz ratio = df['Bonus Share Ratio'] + df['Capitalization Ratio']
  is high sz = total sz ratio >= 5
  # Calculate earnings per share after the distribution (considering the
  effect of expanded share capital)
  df['post eps'] = df['Net Profit Per Share'] * 10 / (10 + total sz ratio)
  # Condition validation: high bonus share (high transfer) implemented
  and post-distribution EPS < 0.2
  valid condition = (
    df['Whether Right Distribution'] & is high sz & (df['post eps'] < 0.2)
  df['CU 10 19 2 condition'] = valid condition
  # Constraint validation: When the condition is met, high send-turn
  shall not be implemented
  df['CU 10 19 2 constraint'] = ~valid condition
  # Clean up intermediate columns
  df.drop(columns=['post eps'], inplace=True, errors='ignore')
  return df
```

Qwen3-235B Code

```
def check CU 10 19 2(df):
      # Initialize marker columns
      df['CU 10 19 2 subject'] = True
      df['CU 10 19 2 condition'] = False
      df['CU 10 19 2 constraint'] = None
  # Calculate the high bonus share (high transfer) plan condition (total
      ratio of bonus shares + capitalization ≥ 5 per 10 shares)
      df['prev capital'] = df.groupby('Company Name')['Total Capital'].shift(1)
      valid capital change = ((df['Total Capital'] - df['prev capital'])
       \left| \frac{df}{prev} \right| >= 0.5 \, \& \left( \frac{df}{prev} \right) \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ... \, ...
      (df['prev capital'] > 0)
  # Calculate earnings per share after the distribution (considering the
       effect of expanded share capital)
      df['is high sr'] = valid capital change
      eps under threshold = df['Net Profit Per Share'] < 0.2
  # Condition validation: high bonus share (high transfer) implemented
       and post-distribution EPS < 0.2
      def cumulative high sr(group):
            return group.expanding().max().fillna(False).astype(bool)
       df['has high sr'] = df.groupby('Company Name',
       group keys=False)['is high sr'].apply(cumulative high sr)
      valid condition = df['has high sr'] & eps under threshold
 # Constraint validation: When the condition is met, high send-turn
      shall not be implemented
      disclosure flag = df['report type'].str.contains('高送转|送红股|转增股本',
      case=False, na=False)
      valid constraint = ~disclosure flag
(...5 lines remaining)
```

Gemini 2.5 Pro Code

```
def check CU 10 19 2(df):
  # Initialize marker columns
  dfI'CU 10 19 2 subject'] = True
  df['CU 10 19 2 condition'] = False
  df['CU 10 19 2 constraint'] = None
  # 1. Check Subject: "Listed company"
  df['CU 10 19 2 subject is listed company'] = True
# Calculate the high bonus share (high transfer) plan condition (total
  ratio of bonus shares + capitalization \geq 5 per 10 shares)
  min high split share increase ratio = 0.5
  with np.errstate(divide='ignore', invalid='ignore'):
   hypothetical post min high split eps = df['net profit per share'] /
   denominator for hypothetical eps adjustment
# Calculate earnings per share after the distribution (considering the
  effect of expanded share capital)
  condition met for hypothetical split =
  hypothetical post min high split eps < 0.2
# Condition validation: high bonus share (high transfer) implemented
  and post-distribution EPS < 0.2
  df.loc[condition met for hypothetical split,
  'CU 10 19 2 condition hypothetical low eps']
= Truedf.loc[~condition met for hypothetical split, 'CU 10 19 2 condition
hypothetical low eps'] = False
  df processed['meu 19 2 evaluation notes'] = ("MEU 19 2 Assessment",
  "Subject: True. " "Condition" ...
(...9 lines remaining)
```