Table 12

Table to Find Out The Reliability Coefficient of

The Grammar Test

<table>
<thead>
<tr>
<th>n</th>
<th>x</th>
<th>y</th>
<th>xy</th>
<th>x²</th>
<th>y²</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40</td>
<td>40</td>
<td>1600</td>
<td>1600</td>
<td>1600</td>
</tr>
<tr>
<td>2</td>
<td>70</td>
<td>20</td>
<td>1400</td>
<td>4900</td>
<td>400</td>
</tr>
<tr>
<td>3</td>
<td>50</td>
<td>40</td>
<td>2000</td>
<td>2500</td>
<td>1600</td>
</tr>
<tr>
<td>4</td>
<td>30</td>
<td>20</td>
<td>600</td>
<td>900</td>
<td>400</td>
</tr>
<tr>
<td>5</td>
<td>20</td>
<td>40</td>
<td>800</td>
<td>400</td>
<td>1600</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>20</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>7</td>
<td>90</td>
<td>70</td>
<td>6300</td>
<td>8100</td>
<td>4900</td>
</tr>
<tr>
<td>8</td>
<td>30</td>
<td>60</td>
<td>1800</td>
<td>900</td>
<td>3600</td>
</tr>
<tr>
<td>9</td>
<td>60</td>
<td>60</td>
<td>3600</td>
<td>3600</td>
<td>3600</td>
</tr>
<tr>
<td>10</td>
<td>80</td>
<td>60</td>
<td>4800</td>
<td>6400</td>
<td>3600</td>
</tr>
<tr>
<td>11</td>
<td>80</td>
<td>40</td>
<td>3200</td>
<td>6400</td>
<td>1600</td>
</tr>
<tr>
<td>12</td>
<td>50</td>
<td>40</td>
<td>2000</td>
<td>2500</td>
<td>1600</td>
</tr>
<tr>
<td>13</td>
<td>40</td>
<td>70</td>
<td>2800</td>
<td>1600</td>
<td>4900</td>
</tr>
<tr>
<td>14</td>
<td>70</td>
<td>70</td>
<td>4900</td>
<td>4900</td>
<td>4900</td>
</tr>
<tr>
<td>15</td>
<td>10</td>
<td>60</td>
<td>600</td>
<td>100</td>
<td>3600</td>
</tr>
<tr>
<td>16</td>
<td>80</td>
<td>60</td>
<td>4800</td>
<td>6400</td>
<td>3600</td>
</tr>
<tr>
<td>17</td>
<td>60</td>
<td>60</td>
<td>3600</td>
<td>3600</td>
<td>3600</td>
</tr>
<tr>
<td>18</td>
<td>80</td>
<td>70</td>
<td>5600</td>
<td>6400</td>
<td>4900</td>
</tr>
<tr>
<td>19</td>
<td>100</td>
<td>90</td>
<td>9000</td>
<td>10000</td>
<td>8100</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
<td>90</td>
<td>5400</td>
<td>3600</td>
<td>8100</td>
</tr>
<tr>
<td>21</td>
<td>100</td>
<td>80</td>
<td>8000</td>
<td>10000</td>
<td>6400</td>
</tr>
<tr>
<td>n</td>
<td>x</td>
<td>y</td>
<td>xy</td>
<td>x²</td>
<td>y²</td>
</tr>
<tr>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>30</td>
<td>1740</td>
<td>1650</td>
<td>101400</td>
<td>116200</td>
<td>100900</td>
</tr>
</tbody>
</table>

Note: $n =$ the number of the sample  
$x =$ students' score on the odd numbers  
$y =$ students' score on the even numbers  
$r =$ the coefficient correlation of two-half tests

$$r = \frac{n \bar{x} \bar{y} - \bar{x} \bar{y} \bar{y}}{\sqrt{n \bar{x}^2 - (\bar{x})^2} \sqrt{n \bar{y}^2 - (\bar{y})^2}}$$

$$= \frac{30 \times 101400 - (1740 \times 1650)}{\sqrt{(30 \times 116200) - (1740)^2} \sqrt{(30 \times 100900) - (1650)^2}}$$

$$= \frac{3042000 - 2871000}{\sqrt{(3486000 - 3027600) (3027000 - 2722500)}}$$
The estimate reliability

\[ r_{11} = \frac{2 \times 0.45}{1 + 0.45} = \frac{0.9}{1.45} = 0.62 \]
Table 13

Table to Find Out the Reliability Coefficient of

The Reading Comprehension Objective Test

<table>
<thead>
<tr>
<th>n</th>
<th>x</th>
<th>y</th>
<th>xy</th>
<th>x^2</th>
<th>y^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>100</td>
<td>80</td>
<td>8000</td>
<td>10000</td>
<td>6400</td>
</tr>
<tr>
<td>2</td>
<td>80</td>
<td>60</td>
<td>4800</td>
<td>6400</td>
<td>3600</td>
</tr>
<tr>
<td>3</td>
<td>80</td>
<td>60</td>
<td>4800</td>
<td>6400</td>
<td>3600</td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>40</td>
<td>4000</td>
<td>10000</td>
<td>1600</td>
</tr>
<tr>
<td>5</td>
<td>100</td>
<td>60</td>
<td>6000</td>
<td>10000</td>
<td>3600</td>
</tr>
<tr>
<td>6</td>
<td>60</td>
<td>40</td>
<td>2400</td>
<td>3600</td>
<td>1600</td>
</tr>
<tr>
<td>7</td>
<td>60</td>
<td>80</td>
<td>4800</td>
<td>2600</td>
<td>6400</td>
</tr>
<tr>
<td>8</td>
<td>20</td>
<td>20</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>9</td>
<td>60</td>
<td>80</td>
<td>4800</td>
<td>3600</td>
<td>6400</td>
</tr>
<tr>
<td>10</td>
<td>20</td>
<td>60</td>
<td>1200</td>
<td>4000</td>
<td>3600</td>
</tr>
<tr>
<td>11</td>
<td>20</td>
<td>40</td>
<td>800</td>
<td>400</td>
<td>1600</td>
</tr>
<tr>
<td>12</td>
<td>40</td>
<td>60</td>
<td>2400</td>
<td>1600</td>
<td>3600</td>
</tr>
<tr>
<td>13</td>
<td>40</td>
<td>20</td>
<td>8000</td>
<td>1600</td>
<td>400</td>
</tr>
<tr>
<td>14</td>
<td>60</td>
<td>40</td>
<td>2400</td>
<td>3600</td>
<td>1600</td>
</tr>
<tr>
<td>15</td>
<td>40</td>
<td>40</td>
<td>1600</td>
<td>1600</td>
<td>1600</td>
</tr>
<tr>
<td>16</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>3600</td>
<td>0</td>
</tr>
<tr>
<td>17</td>
<td>40</td>
<td>0</td>
<td>0</td>
<td>1600</td>
<td>0</td>
</tr>
<tr>
<td>18</td>
<td>40</td>
<td>60</td>
<td>2400</td>
<td>1600</td>
<td>3600</td>
</tr>
<tr>
<td>19</td>
<td>100</td>
<td>40</td>
<td>4000</td>
<td>10000</td>
<td>1600</td>
</tr>
<tr>
<td>20</td>
<td>60</td>
<td>60</td>
<td>3600</td>
<td>3600</td>
<td>3600</td>
</tr>
</tbody>
</table>
Note: \( n \) = the number of the sample
\( x \) = students’ scores on the odd numbers
\( y \) = students’ scores on the even numbers
\( r \) = the coefficient correlation of two-sample test

\[
r = \frac{n \bar{x} \bar{y} - \bar{x} \bar{y}}{\sqrt{\left[n \bar{x}^2 - (\bar{x})^2\right] \left[n \bar{y}^2 - (\bar{y})^2\right]}}
\]

\[
= \frac{(30 \times 112000) - (1760 \times 1680)}{\sqrt{(30 \times 128800) - (1760)^2} \sqrt{(30 \times 113600) - (1680)^2}}
\]

\[
= \frac{3360000 - 2956800}{\sqrt{(3864000 - 3097600)(3408000 - 2822400)}}
\]
\[
\begin{align*}
&= \frac{403200}{\sqrt{766400 \times 505600}} \\
&= \frac{403200}{\sqrt{448803840000}} \\
&= \frac{403200}{669928} \\
&= 0.60 \\
\end{align*}
\]

The Estimate reliability

\[
\begin{align*}
r_{11} &= \frac{2 r_{\frac{1}{2} \frac{1}{2}}}{1 + r_{\frac{1}{2} \frac{1}{2}}} \\
&= \frac{2 \times 0.60}{1 + 0.60} \\
&= \frac{1.2}{1.6} \\
&= 0.75
\end{align*}
\]
Table 12

Table to Find Out the Reliability Coefficient of The Reading Comprehension Subjective Test

<table>
<thead>
<tr>
<th>n</th>
<th>x</th>
<th>y</th>
<th>xy</th>
<th>x^2</th>
<th>y^2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4.16</td>
<td>5.62</td>
<td>23.37</td>
<td>17.30</td>
<td>31.58</td>
</tr>
<tr>
<td>2</td>
<td>7.15</td>
<td>8.75</td>
<td>65.62</td>
<td>56.25</td>
<td>76.56</td>
</tr>
<tr>
<td>3</td>
<td>9.58</td>
<td>8.75</td>
<td>83.82</td>
<td>91.77</td>
<td>76.56</td>
</tr>
<tr>
<td>4</td>
<td>9.58</td>
<td>8.75</td>
<td>83.82</td>
<td>91.77</td>
<td>76.56</td>
</tr>
<tr>
<td>5</td>
<td>7.5</td>
<td>5.25</td>
<td>39.37</td>
<td>56.25</td>
<td>27.56</td>
</tr>
<tr>
<td>6</td>
<td>6.66</td>
<td>8.75</td>
<td>58.27</td>
<td>44.35</td>
<td>76.56</td>
</tr>
<tr>
<td>7</td>
<td>9.16</td>
<td>9.37</td>
<td>85.82</td>
<td>83.90</td>
<td>87.79</td>
</tr>
<tr>
<td>8</td>
<td>4.58</td>
<td>2.5</td>
<td>11.45</td>
<td>20.97</td>
<td>6.25</td>
</tr>
<tr>
<td>9</td>
<td>5</td>
<td>5.62</td>
<td>28.10</td>
<td>25</td>
<td>31.58</td>
</tr>
<tr>
<td>10</td>
<td>7.91</td>
<td>7.5</td>
<td>59.32</td>
<td>62.56</td>
<td>56.25</td>
</tr>
<tr>
<td>11</td>
<td>6.66</td>
<td>4.37</td>
<td>29.10</td>
<td>44.35</td>
<td>19.09</td>
</tr>
<tr>
<td>12</td>
<td>9.58</td>
<td>10</td>
<td>95.8</td>
<td>91.77</td>
<td>100</td>
</tr>
<tr>
<td>13</td>
<td>6.25</td>
<td>6.25</td>
<td>39.06</td>
<td>39.06</td>
<td>39.06</td>
</tr>
<tr>
<td>14</td>
<td>5.83</td>
<td>4.37</td>
<td>25.47</td>
<td>33.98</td>
<td>19.09</td>
</tr>
<tr>
<td>15</td>
<td>9.58</td>
<td>8.75</td>
<td>83.82</td>
<td>91.77</td>
<td>76.56</td>
</tr>
<tr>
<td>16</td>
<td>7.91</td>
<td>9.37</td>
<td>74.11</td>
<td>62.56</td>
<td>87.79</td>
</tr>
<tr>
<td>17</td>
<td>9.58</td>
<td>10</td>
<td>95.8</td>
<td>91.77</td>
<td>100</td>
</tr>
<tr>
<td>18</td>
<td>5</td>
<td>5</td>
<td>25</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>19</td>
<td>7.5</td>
<td>3.75</td>
<td>28.12</td>
<td>56.25</td>
<td>14.06</td>
</tr>
<tr>
<td>20</td>
<td>7.08</td>
<td>8.75</td>
<td>61.95</td>
<td>50.12</td>
<td>76.56</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>10</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>---</td>
<td>----</td>
<td>----</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>5</td>
<td>10</td>
<td>50</td>
<td>25</td>
<td>100</td>
</tr>
<tr>
<td>23</td>
<td>4.16</td>
<td>2.5</td>
<td>10.40</td>
<td>17.30</td>
<td>6.25</td>
</tr>
<tr>
<td>24</td>
<td>3.33</td>
<td>1.25</td>
<td>4.16</td>
<td>11.08</td>
<td>1.56</td>
</tr>
<tr>
<td>25</td>
<td>9.16</td>
<td>8.75</td>
<td>80.15</td>
<td>83.90</td>
<td>76.56</td>
</tr>
<tr>
<td>26</td>
<td>9.58</td>
<td>9.37</td>
<td>89.76</td>
<td>91.77</td>
<td>87.79</td>
</tr>
<tr>
<td>27</td>
<td>5</td>
<td>3.75</td>
<td>18.75</td>
<td>25</td>
<td>14.06</td>
</tr>
<tr>
<td>28</td>
<td>5.83</td>
<td>7.5</td>
<td>43.72</td>
<td>33.98</td>
<td>56.25</td>
</tr>
<tr>
<td>29</td>
<td>5</td>
<td>6.25</td>
<td>31.25</td>
<td>25</td>
<td>39.06</td>
</tr>
<tr>
<td>30</td>
<td>10</td>
<td>6.25</td>
<td>62.5</td>
<td>100</td>
<td>39.06</td>
</tr>
</tbody>
</table>

\[ \begin{array}{c|c|c|c|c|c} 
 n & \bar{x} & \bar{y} & \bar{xy} & \bar{x}^2 & \bar{y}^2 \\
\hline 
30 & 213.66 & 207.09 & 1587.88 & 1649.78 & 1625.05 \\
\end{array} \]

**Note:**

The writer uses decimal fractions in this calculation to avoid large numbers of sums.

- \( n \) = the number of the sample
- \( x \) = the student's mean score in the try out
- \( y \) = the student's mean score in the real test

Both scores are taken from the writer's scoring and Sri Soenaring's

\( r \) = the coefficient correlation of the try out and the real test
\[ r = \frac{n \bar{x} \bar{y} - \bar{x} \bar{y}}{\sqrt{\left[ n \bar{x}^2 - (\bar{x})^2 \right] \left[ n \bar{y}^2 - (\bar{y})^2 \right]}} \]

\[ = \frac{(30 \times 1587.88) - (213.66 \times 207.09)}{\sqrt{(30 \times 1649.78) - (213.66)^2 (30 \times 1625.05) - (207.09)^2}} \]

\[ = \frac{47636.40 - 44246.84}{\sqrt{(49493.40 - 4565059) (48751.50 - 42886.26)}} \]

\[ = \frac{3389.56}{\sqrt{3842.81 \times 5865.24}} \]

\[ = \frac{3389.56}{\sqrt{22639002.92}} \]

\[ = \frac{3389.56}{4747.53} \]

\[ 0.71 \]
PRETEST OF GRAMMAR

Waktu : 20 menit

Petunjuk A

Pada Bagian A, pilihlah salah satu jawaban yang paling tepat diantara empat pilihan yang tersedia, kemudian pindahkan jawaban saudara pada kertas jawaban dengan menyilang salah satu huruf sesuai dengan jawaban saudara.

1. The 'two basic instruments (who), (whom), (which), (whose)
measure temperature are called thermometer and thermo-
couple.

2. The temperature rises in the tube (which), (when), (that)
    (how) it expands.

3. lot allpeople know (whan), (where), (who), (how)
discovered thermometer.

4. (That), (When), (To), (Being) at different temperature, the
two junctions between the two metals make the current flow.

5. An electric current flows in a continuous circuit
    (composed), (compose), (composing), (to compose) of two
different metals.

6. Thermometer consists of a tube that contains a liquid.
   That contains a liquid refers to :
   A. thermometer       C. of
   B. consists           D. a tube

7. An electric current flows in a continuous circuit which
   is composed of two different metals.
Which is composed of two different **metals** refers to:
A. an electric current  
B. **flows**  
C. current flows  
D. a continuous circuit

8. Which is composed can be shorten to:
A. compose  
B. to compose  
C. composed  
D. composing

9. ............ the temperature in the **instrument** is easily found, the other temperature can be calculated.
A. Because  
B. Which  
C. That  
D. Having been

10. An electric current will flow in a continuous current ........... two junctions between the two metals are at different temperature.
A. that  
B. where  
C. which  
D. if

11. A. Being at different temperatures, the two metals cause the electric current to flow.
B. Because different temperatures, the two metals cause the electric current to flow.
C. **If** different temperatures, the two metals cause the electric current to flow.
D. That different temperatures, the two metals cause the electric current to flow.

12. A. We have seen how important a plant's instrumentation is.
B. We have seen how is important a plant's instrumentation.
C. We have seen how important a plant's instrumentation.
D. We have seen how important is a plant's instrumentation.

13. A. In order to measure temperature, thermometer or thermocouple can be used.
B. To measure temperature, one can use thermometer or thermocouple.
C. If measuring temperature, one can use thermometer or thermocouple.
D. Measuring temperature, thermometer or thermocouple can be used.

14. A. If we want to measure our temperature, we can use a thermometer.
    B. Having measured our temperature, we can use a thermometer.
    C. Measuring our temperature, thermometer can be used.
    D. To measure our temperature, thermometer can be used.

15. A. Thomas J. Seeback, who discovered thermocouple, is German physicist.
    B. Thomas J. Seeback, who discovered thermocouple, is German physicist.
    C. Thomas J. Seeback, who discovered thermocouple, is German physicist.
    D. Thomas J. Seeback whose discovered thermocouple, is German physicist.

Petunjuk B:
Petunjuk bagian B, ada 3 kata atau frasa yang digaris bawahi (A), (B), (C), saudara harus memilih jawaban yang tidak benar, bila saudara menganggap ketiga pilihan tersebut benar semua maka pilihlah (D).

16. Everybody knows what is thermometer for. No error

17. Depending on the temperature to be measured, the liquid in the tube is usually colored alcohol or mercury. No error

18. To flow an electric current in a continuous circuit, two different metals are needed. No error
19. The height to where it rises is **calibrated** to indicate **temperature. No error**

20. Some advance thermocouple instruments are equipped **doing the calculation automatically. No error**
I. Test di bawah ini bertujuan untuk:
- mengukur seberapa jauh siswa telah menguasai English Complex Sentences.

English Complex Sentences yang dimaksud meliputi:
A. Penguasaan Adjective Clause
B. Penguasaan Adverb Clause
C. Penguasaan Noun Clause
D. Penguasaan Gerund Phrase
E. Penguasaan Infinitive Phrase
F. Penguasaan Participle Phrase

II. Waktu untuk mengerjakan test ini : 20 menit

III. Jumlah soal yang harus dikerjakan : 20

IV. Bentuk test : objective test

V. Etunjuk mengerjakan test:
- Silanglah jawaban yang paling tepat di kertas jawaban saudara.

Contoh mengerjakan:
- Thermometer ........ made of glass
  a. am  b. is  c. are  d. -

Pada lembar jawaban : bubuhkan tanda silang pada jawaban yang paling benar.
  a.  b.  c.  d.

1. The two basic instruments (when), (if), (which), (where) measure temperature are called thermometer and thermocouple.

2. The temperature rises in the tube (which), (when), (that), (how) it expands.
3. Not all people know (when), (that), (who), (whom) discovered thermometer.

4. (That), (when), (To) (Bein) at different tempera- ture, the two junctions between the two metals make current flow.

5. An electric current flows in a continuous circuit (composed), (is composed), (composing), (to compose) of two different metals.

6. Thermometer consists of a tube that contains a liquid. That contains a liquid refers to :
   a. Thermometer    c. consists of
   b. consists of a tube d. a tube

7. An electric current flows in a continuous circuit which is composed of two different metals. Which is composed of two different metals refers to :
   a. an electric current c. current flows
   b. flows d. a continuous circuit

8. Which is composed can be shortened to :
   a. compose c. composed
   b. to compose  d. composing

9. the temperature in the instrument is easily found, the other temperature can be calculated.
   a. Because c. That
   b. Which d. If

10. An electric current will flow in a continuous current two junctions between the two metals are at different temperature .
    a. that c. which
    b. where d. if
11. ........ different temperature, the two metals cause the electric current to flow.
   a. Being at      c. If
   b. When         d. That

12. We have seen ........
   a. how important a plant's instrumentation.
   b. how is important a plant's instrumentation.
   c. how important a plant's instrumentation.
   d. how important is a plant's instrumentation.

13. ........ measure temperature, someone can use thermometer or thermocouple .
   a. Being       c. When
   b. To          d. If

14. ........ we can use a thermometer.
   a. If we measure our temperature,
   b. Having measured our temperature,
   c. When measure our temperature,
   d. Because measure our temperature,

15. Thomas J. Seeback, ........, is German physicist.
   a. which discovered thermocouple
   b. whom discovered thermocouple
   c. Who discovered thermocouple
   d. whose discovered thermocouple

B. Eetunjuk mengerjakan test :
   Silanglah huruf B bila pernyataan yang digaris bawah Benar and huruf S bila pernyataan yang di-
garis bawah Salah.
   Contoh mengerjakan test :
   - Thermometer are made of glass.
   Pada lembar jawaban : bubuhkan tanda silang pada jawaban yang paling benar.

   B  S
16. Everybody knows what thermometer is for.
17. Depending on the temperature to be measured, the liquid in the tube is usually colored alcohol or mercury.
18. To flow an electric current in a continuous circuit, two different metals are needed by us.
19. The height to where it rises is calibrated to indicate temperature.
20. Some advance thermocouple instruments are equipped doing the calculation automatically,

GOOD LUCK
LEMBAR JAWABAN GRAMMAR TEST

Nama :
Nrp :

BAGIAN A

1. a. b. c. d. 9. a. b. c. d.
2. a. b. c. d. 10. a. b. c. d.
3. a. b. c. d. 11. a. b. c. d.
4. a. b. c. d. 12. a. b. c. d.
5. a. b. c. d. 13. a. b. c. d.
7. a. b. c. d. 15. a. b. c. d.
8. a. b. c. d.

BAGIAN B

16. B S
17. B S
18. B S
19. B S
20. E S
The two basic instruments for measuring temperature are the thermometer and thermocouple. The basic design of the thermometer is familiar. It consists of a tube usually glass, which contains a liquid that expands or contracts depending on the temperature to which it is exposed. As it expands it rises in the tube—the height to which it rises is calibrated to indicate temperature. Depending on the temperatures to be measured, the liquid in the tube is usually colored alcohol or mercury.

The second most common temperature-measuring device is the thermocouple. It is based on the discovery in 1821, by the German physicist, Thomast J. Seebeck, that an electric current flows in a continuous circuit composed of two different metals if the two junctions between the two metals are at different temperatures. One junction is placed at the point where the temperature is to be measured: the other is usually
in the instrument used to measure the current. The current that flows in the circuit depends on the difference between the two temperature. Since the temperature in the instrument is easily found (by using a thermometer), the other temperature can be calculated. Some advanced thermocouple instruments are equipped to do the calculation automatically - on these, the desired temperature can be read directly. Since the output of the thermocouple is electrical, it is frequently chosen to be used with other electrical or electronic instruments.

**Soal**

1. The information in this passage centers about thermometer and thermocouple's:
   a. relationship  c. effectiveness
   b. function  d. work

2. The main idea of this passage is that:
   a. thermometer is more effective in measuring temperature.
   b. thermometer and thermocouple are the instrument to measure temperature.
   c. thermometer and thermocouple function as plant's instrument.
   d. thermometer and thermocouple use mercury to indicate temperature.

3. The two junctions between the two metals in a thermocouple will be different if the electric current:
   a. stops  c. moves
   b. disappears d. remains
4. The output of the thermocouple is:
   a. electrical  c. pressure
   b. temperature  d. flow

5. Thermometer consists of a glass which contains a liquid that expands or contracts depending on the temperature to which it is exposed. Contract is similar to:
   a. develop  c. decrease
   b. increase  d. stop

6. According to this passage, thermometer and thermocouple are the same in:
   a. form  c. effectiveness
   b. function  d. work

7. In thermocouple, the temperature which will be measured is in:
   a. controller  c. junction point
   b. circuit  d. recorder

8. The author would inform the reader to understand about:
   a. the electrical instrument of thermocouple.
   b. the function of thermometer and thermocouple.
   c. the work of thermometer and thermocouple.
   d. the picture of thermometer and thermocouple.

9. The second most common temperature measuring device is:
   a. tool  c. type
   b. instrument  d. function

10. To know the temperature of your body, you need a:
    a. thermocouple  c. thermometer wells
    b. thermometer  d. pyrometer
B. Tulislah jawaban saudara di kertas jawaban dengan Bahasa Indonesia yang jelas.

1. Ceritakan dengan jelas bagaimana cara kerja thermometer dalam mengukur suhu.

2. Ceritakan dengan jelas bagaimana cara kerja thermocouple dalam mengukur suhu.

GOOD LUCK
REAL READING COMPREHENSION TEST

I. Tujuan dari test di bawah ini ialah:
- mengukur penguasaan reading comprehension siswa yang terdiri atas penguasaan:
  A. Subject matter    E. Significance
  B. Generalization    F. Appliance
  C. Details           G. Conclusion
  D. Vocabularies

II. Waktu untuk mengerjakan test ini: 40 menit

III. Bentuk test: objective test
     subjective test

IV. Petunjuk mengerjakan test:
A. Silanglah jawaban yang paling tepat di kertas jawaban saudara.
   - What is the passage about?
     A. thermometer       C. thermostat
     B. thermodynamics    D. thermocouple

Pada lembar jawaban: bubuhkan tanda silang pada jawaban yang paling tepat.
A. B. C. D.

Bacalah baik-baik wacana di bawah ini sebelum saudara mengerjakan soal.

The two basic instruments for measuring temperature are the thermometer and the thermocouple. The basic design of the thermometer is familiar. It consists of a tube, usually glass, which contains a liquid that expands or contracts depending on the temperature to which it is exposed. As it expands it rises in the tube— the height to which it rises is calibrated to indicate temperature.
Depending on the temperatures to be measured, the liquid in the tube is usually colored alcohol or mercury.

The second most common temperature measuring device is the thermocouple. It is based on the discovery in 1821, by the German physicist, Thomas J. Seebeck, that an electric current flows in a continuous circuit composed of two different metals if the two junctions between the two metals are at different temperatures. One junction is placed at the point where the temperature is to be measured; the other is usually in the instrument used to measure the current. The current that flows in the circuit depends on the difference between the two temperatures. Since the temperature in the instrument is easily found (by using a thermometer) the other temperature can be calculated. Some advanced thermocouple instruments are equipped to do the calculation automatically– on these, the desired temperature can be read directly. Since the output of the thermocouple is electrical, it is frequently chosen to be used with other electrical or electronic instruments.

SOAL

1. The information in the passage centers about thermometer and thermocouple's
   a. relationship c. effectiveness
   b. function d. work
2. The main idea of this passage is that:
   a. Thermometer and thermocouple's work in measuring temperature are efficient.
   b. Thermometer and thermocouple are instruments to measure temperature.
   c. Thermometer and thermocouple are the best instrument to measure temperature.
   d. Thermometer and thermocouple's work in measuring temperature are different.

3. The two junctions between the two metals in a thermocouple will be different if the electric current:
   a. stops
   b. disappears
   c. moves
   d. remains

4. Thermocouple is effective to measure temperature with other electrical instruments because it produces:
   a. electricity
   b. temperature
   c. heat
   d. movement

5. Thermometer consists of a glass which contains a liquid that expands or contracts depending on the temperature to which it is exposed:
   Expand is similar to:
   a. develop
   b. increase
   c. decease
   d. jump

6. According to this passage, we know that thermometer and thermocouple:
   a. need the same way to operate
   b. work in the same way
   c. give the same function
   d. show the same effectiveness

7. In thermocouple, the temperature which will be measured is in
8. The author would inform the reader to understand about:
   a. the electrical instrument of thermocouple
   b. the function of thermometer and thermocouple
   c. the work of thermometer and thermocouple
   d. the picture of thermometer and thermocouple

9. The second most common temperature measuring device is .......
   The synonym of device is
   a. thermocouple c. type
   b. instrument d. function

10. To measure temperature of your body exactly, your doctor will put .......
   a. his hand on your forehead
   b. thermometer in your mouth
   c. thermometer in your hand
   d. thermocouple in your mouth

B. Petunjuk mengerjakan test:
   Jelaskan jawaban saudara di kertas jawaban gang tersedia dengan menggunakan Bahasa Indonesia yang jelas.
   1. Ceritakan dengan jelas bagaimana cara kerja thermometer dalam mengukur suhu.
   2. Ceritakan dengan jelas bagaimana cara kerja thermocouple dalam mengukur suhu.

GOOD LUCK
LEMBAR JAWABAN READING COMPREHENSION TEST
Nama : 
Nrp : 

Bagian A
1. a. b. c. d. 6. a. b. c. d. 
2. a. b. c. d. 7. a. b. c. d. 
3. a. b. c. d. 8. a. b. c. d. 
4. a. b. c. d. 9. a. b. c. d. 
5. a. b. c. d. 10. a. b. c. d. 

Bagian B
1. 

2. 