PEMERINTAH KOTA SEMARANG

DINAS PENDIDIKAN

**SMA NEGERI 14 SEMARANG**

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Mata Pelajaran : Fisika

Materi Pokok : **Hukum Ohm**

Teknik Penilaian : Tes Praktik

Bentuk Instrumen : Tes Simulasi

Tahun Pelajaran : 2018/2019

Nama Peserta : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Kelas/Program : XII IPA \_\_\_

No. Peserta : \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Hari/Tanggal : \_\_\_\_\_ / \_\_ Jan 2019

Waktu : 120 menit

Nilai :

**NASKAH SOAL UJIAN PRAKTIKUM**

**Rumusan Butir Soal No. 3 :**

Lakukan simulasi percobaan Hukum Ohm untuk menemukan hubungan antara kuat arus listrik dengan beda potensial pada suatu rangkaian tertutup.

1. Tujuan Percobaan

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1. Dasar Teori

Pada tahun 1827 seorang ahli fisika Jerman George Simon Ohm menemukan hubungan antara arus listrik yang mengalir melalui suatu rangkaian dengan tegangan yang dipasang pada rangkaian itu. Hubungan antara I dengan V tersebut diperolehnya melalui sebuah percobaan dan secara empiris Ohm menyatakan hubungan antara V dengan I.

1. Alat dan Bahan

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| No. | Nama Alat/Bahan | No. | Nama Alat/Bahan |
| 1.  2.  3.  4.  5. | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 6.  7.  8.  9.  10. | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. Hipotesis

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1. Langkah Percobaan

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1. Data Hasil Percobaan

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| --- | --- | --- | --- | --- |
| No- | Jumlah Baterai | Tegangan Listrik (V) | Kuat Arus Listrik (I) | V/I |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 |  |  |  |  |
| 4 |  |  |  |  |
| 5 |  |  |  |  |

1. Evaluasi
2. Berdasarkan tabel, buatlah grafik hubungan antara tegangan listrik (V) dengan kuat arus listrik (I).

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1. Berdasarkan grafik, bagaimana hubungan antara tegangan listrik (V) dengan kuat arus listrik (I)? Jelaskan.

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1. Hitunglah perbandingan nilai antara tegangan listrik dengan kuat arus listrik untuk masing-masing jumlah baterai.

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1. Apakah nilai hambatan (R) dipengaruhi oleh kuat arus dan tegangan sumber? Jelaskan.

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1. Mengapa arus listrik mengalir pada sebuah rangkaian yang memiliki beda potensial (V)? Jelasksan.

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1. Jelaskan 3 contoh penerapan yang berhubungan dengan hukum Ohm dalam kehidupan sehari-hari.

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1. Kesimpulan Percobaan

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