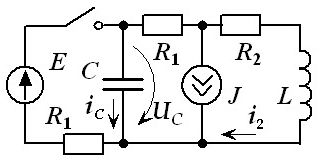
Домашнее Задание №2

Определить законы изменения во времени токов и напряжений, указанных на схеме стрелками. Построить временные зависимости рассчитанных токов и напряжений. Определить постоянную времени цепи.

Единицы измерения: *e* [В], *i* [А], *R* [Ом], *L* [Гн], *C* [Ф].

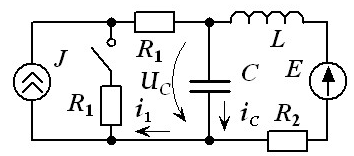
ВАРИАНТ 1

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  1 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 100 | 1 | 25 | 50 | 100 | 160 |



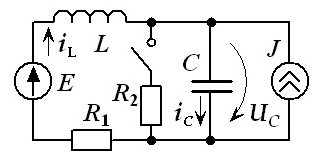
ВАРИАНТ 2

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  2 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 52 | 1.04 | 25 | 2 | 4 | 40 |



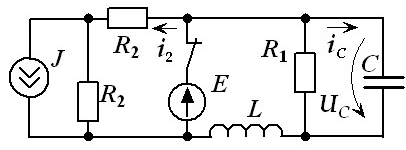
ВАРИАНТ 3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  3 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 30 | 3 | 7 | 8 | 10 | 1250 |



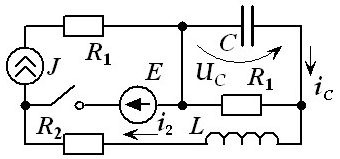
ВАРИАНТ 4

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  4 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 60 | 4 | 10 | 15 | 50 | 500 |



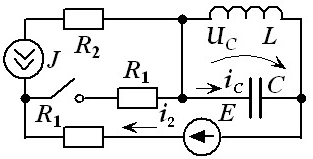
ВАРИАНТ 5

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  5 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 52 | 1 | 50 | 2 | 5 | 50 |



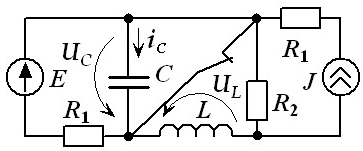
ВАРИАНТ 6

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  6 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 48 | 1 | 4 | 16 | 20 | 625 |



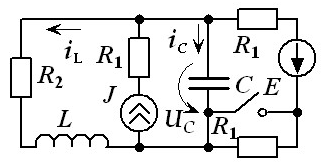
ВАРИАНТ 7

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  7 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 180 | 4.5 | 10 | 80 | 200 | 500 |



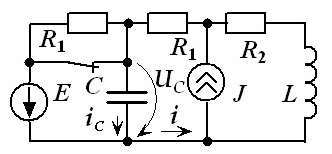
ВАРИАНТ 8

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  8 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 510 | 2.55 | 125 | 5 | 12.5 | 20 |



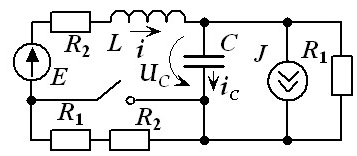
ВАРИАНТ 9

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  9 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 70 | 7 | 15 | 10 | 20 | 1000/3 |



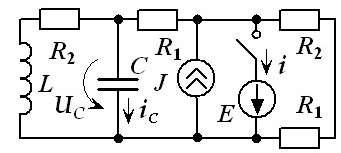
ВАРИАНТ 10

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  10 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 98 | 4.9 | 25 | 24 | 70 | 700 |



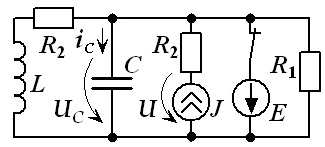
ВАРИАНТ 11

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  11 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 404 | 2 | 200 | 2 | 10 | 25 |



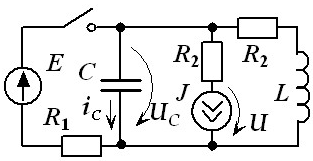
ВАРИАНТ 12

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  12 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 32 | 4.2 | 5 | 16 | 20 | 1000 |



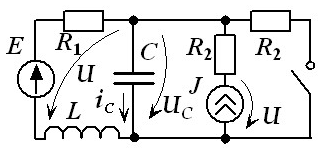
ВАРИАНТ 13

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  13 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 225 | 1 | 25 | 75 | 125 | 200 |



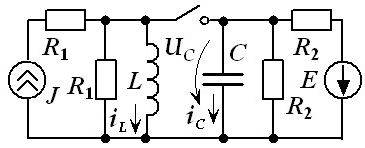
ВАРИАНТ 14

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  14 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 104 | 1.04 | 2 | 50 | 4 | 40 |



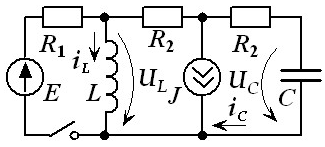
ВАРИАНТ 15

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  15 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 160 | 1 | 40 | 80 | 70 | 250/7 |



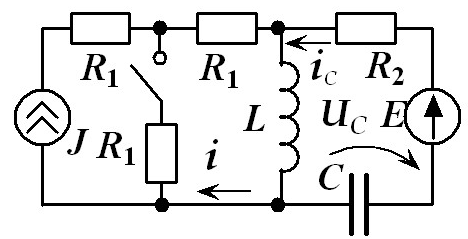
ВАРИАНТ 16

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  16 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 100 | 3 | 100 | 200 | 200 | 20 |



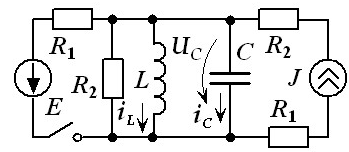
ВАРИАНТ 17

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  17 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 100 | 2 | 200 | 100 | 160 | 4 |



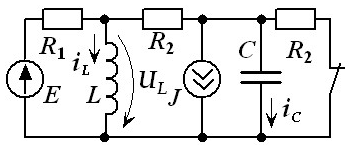
ВАРИАНТ 18

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  18 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 40 | 1 | 20 | 10 | 50 | 250 |



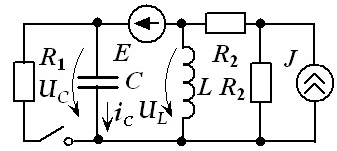
ВАРИАНТ 19

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  19 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 10 | 10 | 1 | 24 | 4 | 250 |



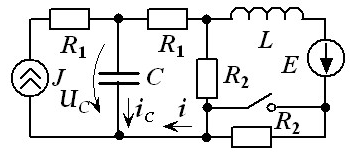
ВАРИАНТ 20

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  20 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 60 | 2 | 30 | 30 | 8 | 50 |



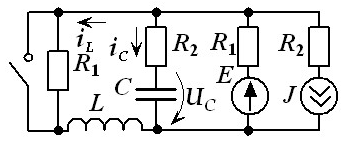
ВАРИАНТ 21

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  21 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 192 | 6 | 32 | 48 | 12 | 62.5 |



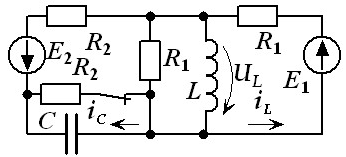
ВАРИАНТ 22

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  22 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 60 | 6 | 5 | 120 | 10 | 25 |



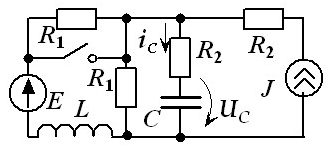
ВАРИАНТ 23

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  23 | *E*1  В | *E*2  В | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 144 | 32 | 72 | 4 | 9 | 62.5 |



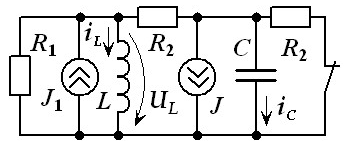
ВАРИАНТ 24

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  24 | *E*  В | *J*  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 216 | 4 | 36 | 44 | 9 | 62.5 |



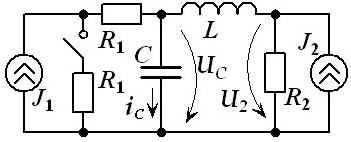
ВАРИАНТ 25

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  25 | *J*  A | *J*1  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 6 | 4 | 1 | 24 | 8 | 500 |



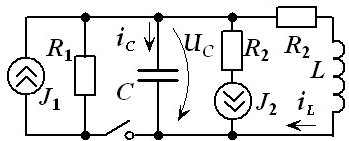
ВАРИАНТ 26

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  26 | *J*1  А | *J*2  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 1.04 | 26 | 50 | 4 | 8 | 20 |



ВАРИАНТ 27

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  27 | *J*1  А | *J*2  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 4.2 | 2.1 | 5 | 16 | 80 | 250 |



ВАРИАНТ 28

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| №  28 | *J*1  А | *J*2  А | *R*1  Ом | *R*2  Ом | *L*  мГн | *C*  мкФ |
| а |  |  |  |  |  |  |
| б |  |  |  |  |  |  |
| в |  |  |  |  |  |  |
| г | 18 | 1.8 | 10 | 80 | 200 | 500 |

