مرحباً محمد، عند إرسال هذا النموذج، سيرى مالك النموذج اسمك وبريدك الإلكتروني.

* مطلوب

1

* If the BJT transistor in CE configuration is in saturation then
(2 نقطة)

- ◉ .IC is always equal to βIB
- ○ .IC is always equal to − βIB
- ○ .IC is greater than or equal to βIB
- ○ .IC is less than βIB

2

* ?Which of the following ratings is true
(2 نقطة)

- ○ .Si diodes have higher PIV and narrower temperature ranges than Ge diodes
- ◉ .Si diodes have higher PIV and wider temperature ranges than Ge diodes
- ○ .Si diodes have lower PIV and narrower temperature ranges than Ge diodes
- ○ .Si diodes have lower PIV and wider temperature ranges than Ge diodes

3

* a.............circuit is a circuit which shifts the DC level of output voltage
(1 نقطة)

- ○ Clipper
- ◉ Clamper
- ○ Rectifier
- ○ Regulator

4

* ?What is the level of IG in a MOSFET
(2 نقطة)

- ◉ Zero amperes
- ○ Equal to ID
- ○ Depends on VDS
- ○ ID=IS

5

The depletion width _____ in the forward bias, which results in having a majority flow across the junction. *
(1 نقطة)

- ○ increases
- ○ remains unchanged
- ◉ reduces

changes alternatively ⏾

6

* The number of carriers participating in the operation principle of a unipolar device is
(نقطة 2)

3 ○

1 ●

0 ○

2 ○

7

* ?Which of the following is (are) the application(s) of a transistor
(نقطة 2)

Computer logic circuitry ○

Switching and control ○

All ●

Amplification of signal ○

8

which one of the stability factors has the least impact on the device at a very high temperature
* ?in a voltage-divider biasing network of BJT amplifier
(نقطة 2)

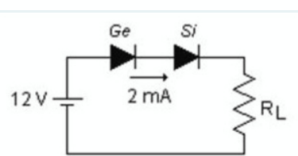S(β) ●

S(ICO) ○

Undefined ○

S(VBE) ○

S(IBO) ○

9

* .The inner layer of a BJT transistor is _____ the outer layers
(نقطة 2)

much smaller than ●

the same as ○

much larger than ○

None of the above ○

10

* .Determine the value of α when $\beta = 100$
(نقطة 2)

0.01 ○

101 ○

0.99 ●

Cannot be solved ○

11

* .Determine the resistor RL
(نقطة 2)

RL = 16 kΩ ○

RL = 5 kΩ ○

RL = 15 kΩ ○

None of the above ●

12

* ._____The ratio of the total swing of the output of a clamper to its input peak-peak value is

(2 نقطة)

1 ●

0.5 ○

2 ○

0 ○

13

The slope of the dc load line in a voltage-divider network in a common sources FET   48.
* ._____ amplifier is controlled by

(2 نقطة)

R1 ☑

VBE ☐

IDSS ☑

VP ☐

14

* ...... To increase the current-carrying capability, practical diodes are connected
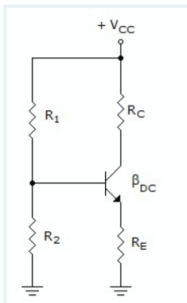
(2 نقطة)

in parallel ●

in series ○

in parallel-series ○

None of the above ○

15

* In the voltage-divider biased NPN transistor circuit, if R1 opens, the transistor is

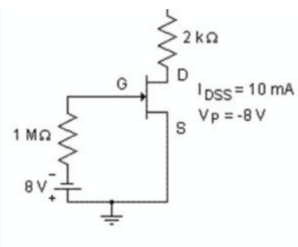(2 نقطة)

operates in the saturation region ○

operates in the cut off region ○

operates in the active region ●

can not be determined. ○

16

+16 V

2 kΩ

G ⊣ D I_{DSS} = 10 mA
         Vp = -8 V
      S

1 MΩ

8 V

* The maximum current that can flow in the 2 k ohm is
(2 نقطة)

10mA ⦿

1.1mA ○

2mA ○

can not be solved ○

17

* _____ As the load resistor decreases, the levels of diode operating current
(2 نقطة)

decrease ⦿

remain unchanged ○

increase ○

are unpredictable ○

18

* The E-MOSFET is a _____ controlled device and npn transistor is a _____controlled device
(2 نقطة)

voltage, current ○

current, voltage ○

None of the options ○

current, current ○

voltage, voltage ⦿

19

β = 60

v_i ⊣⊢   ⊣⊢ ○v_o

R_E 1.2 kΩ R_C 2.4 kΩ

V_{EE} 5V V_{CC} 10 V
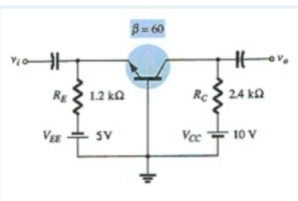
* .Determine the values of VBC and IB for this circuit
(2 نقطة)

V, 3.58 μA 9.3 ○

V, 58.7 μA 1.4– ○

cannot be solved ○

V, 58.7 μA 1.4 ⦿

V, 3.58 μA 9.3– ○

20

* _____ The dc load line of the common base amplifier is determined solely by the
(2 نقطة)

base-collector loop ⦿

base-emitter loop ◯

None ◯

collector-emitter loop ◯

21

* _____ to increase the total PIV rating, diodes are connected
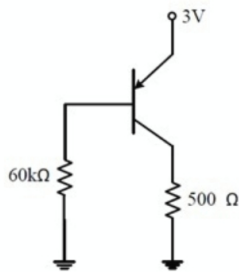(2 نقطة)

None of the above ◯

in parallel ◯

in parallel-series ◯

in series ⦿

22

the BJT has a current gain (β) of 50. For an emitter – base voltage VEB = 0.7V, the emitter –
* _____ collector voltage VCE (in Volts) is
(2 نقطة)

2.04V- ⦿

2.04V ◯

can not be solved ◯

2.14- ◯

2.14 ◯

23

* The capacitors are used to _____ in amplifier configurations
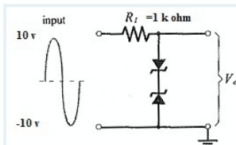(2 نقطة)

block the dc level ⦿

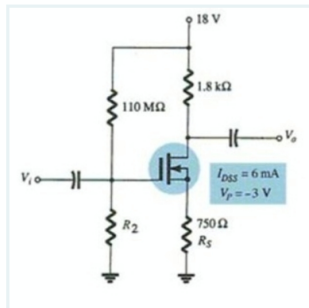allow dc level ◯

to shift the Q point ◯

All of the options ◯

24

Determine the peak for both half cycles of the output waveform. if the Zener diodes have
* Vz=10 v and fabricated from Silicon
(2 نقطة)

v,-10.7 v 10.7 ⦿

25

18 V

1.8 kΩ

110 MΩ

$I_{DSS} = 6$ mA
$V_P = -3$ V

V_i

V_o

R_2

750 Ω
R_S

* ?what is the value of R2 that makes VGSQ equal to 1 V
(نقطة 2)

MΩ 10 ⚪

MΩ 100 ⚪

MΩ 110 🔵

MΩ 22 ⚪

None ⚪

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* . in the Zener diode, changing the _____ can vary the value of Vz
(نقطة 2)

the load resistance ⚪

the input voltage ⚪

leakage current ⚪

forward voltage ⚪

doping concentration 🔵

إرسال