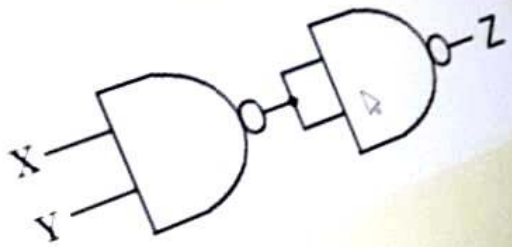
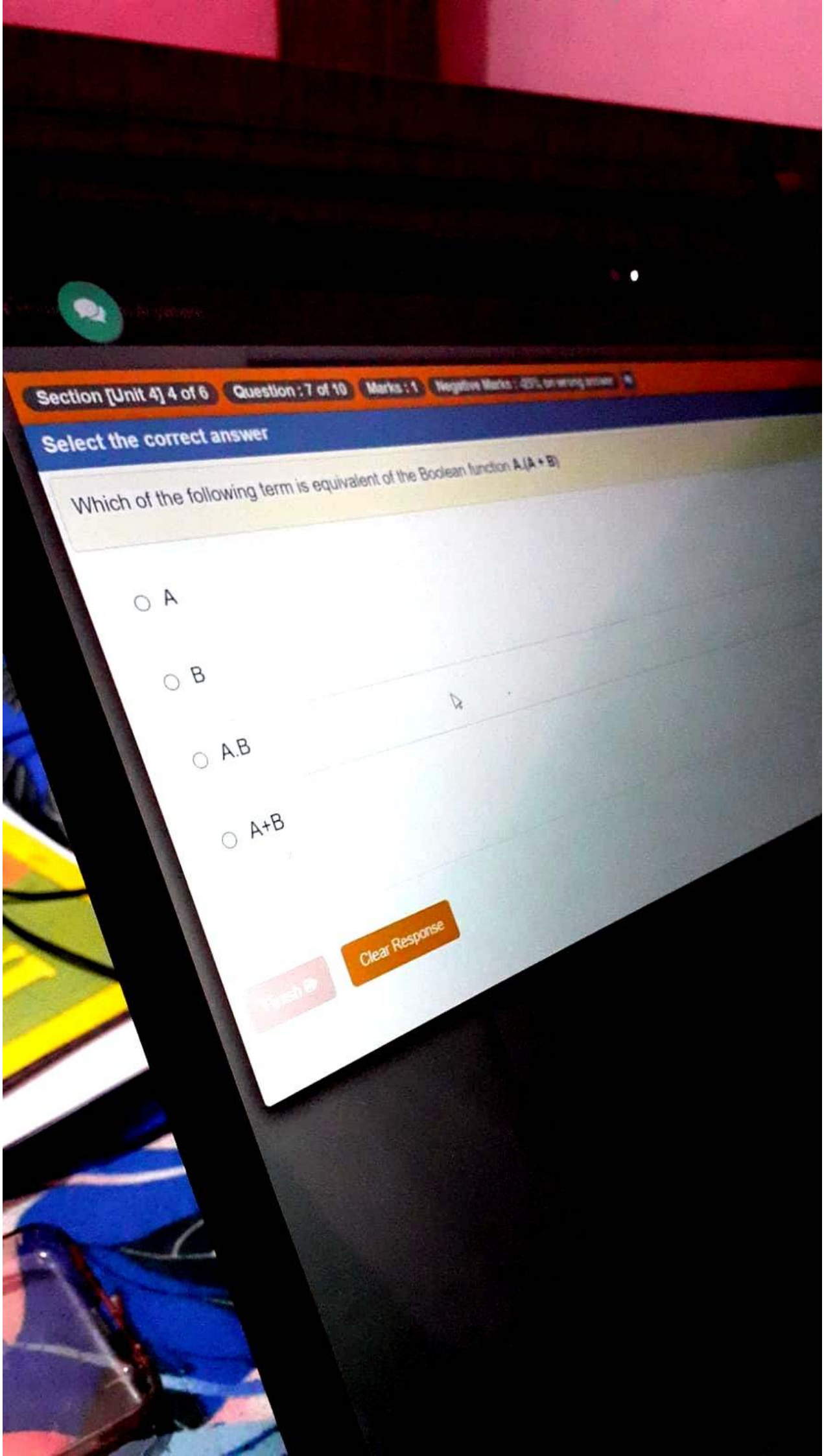
Section [Unit 4] 4 of 6 | Question : 4 of 10 | Marks : 1 | Negative Marks : -25% on wrong answer

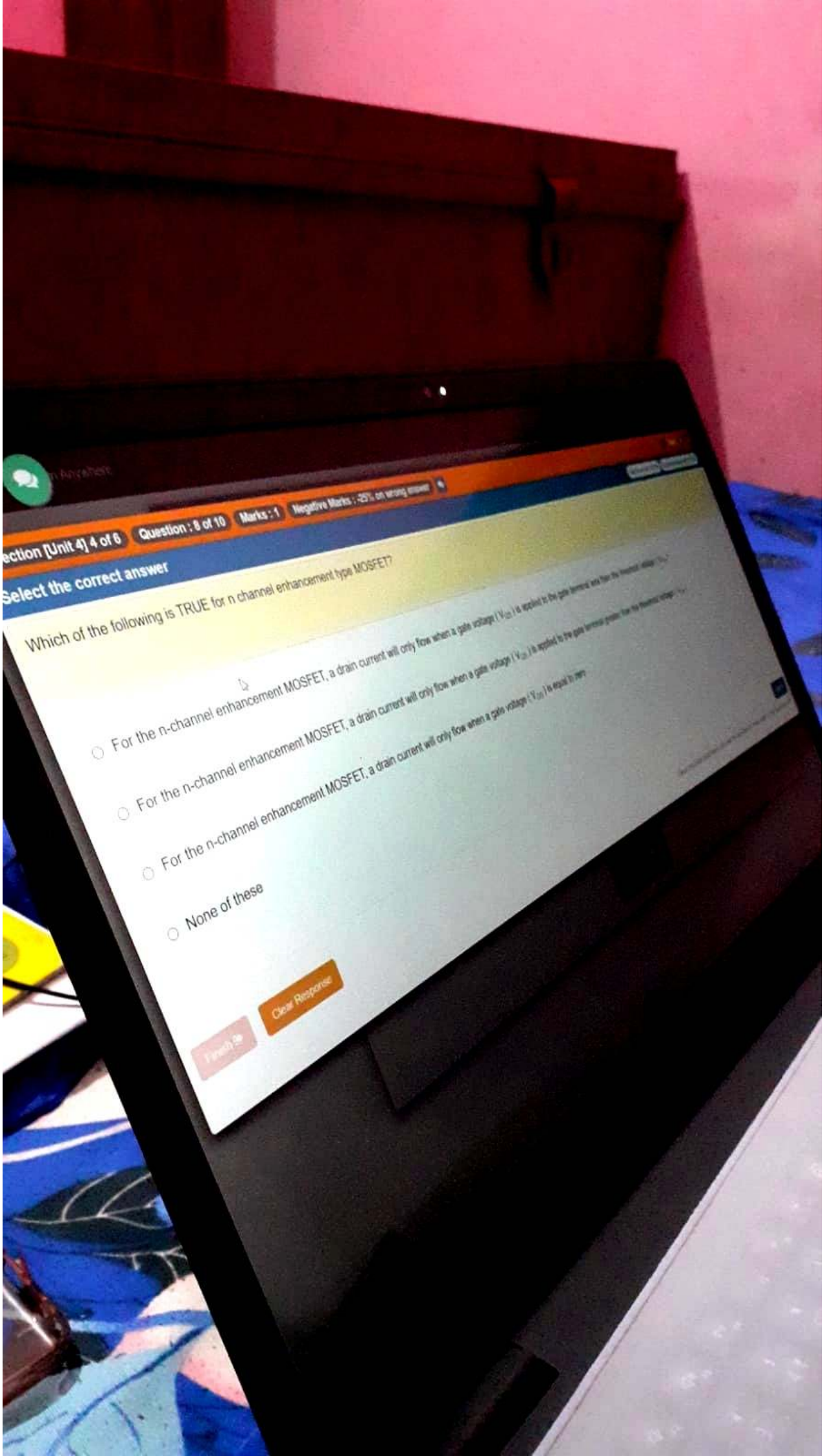
Select the correct answer

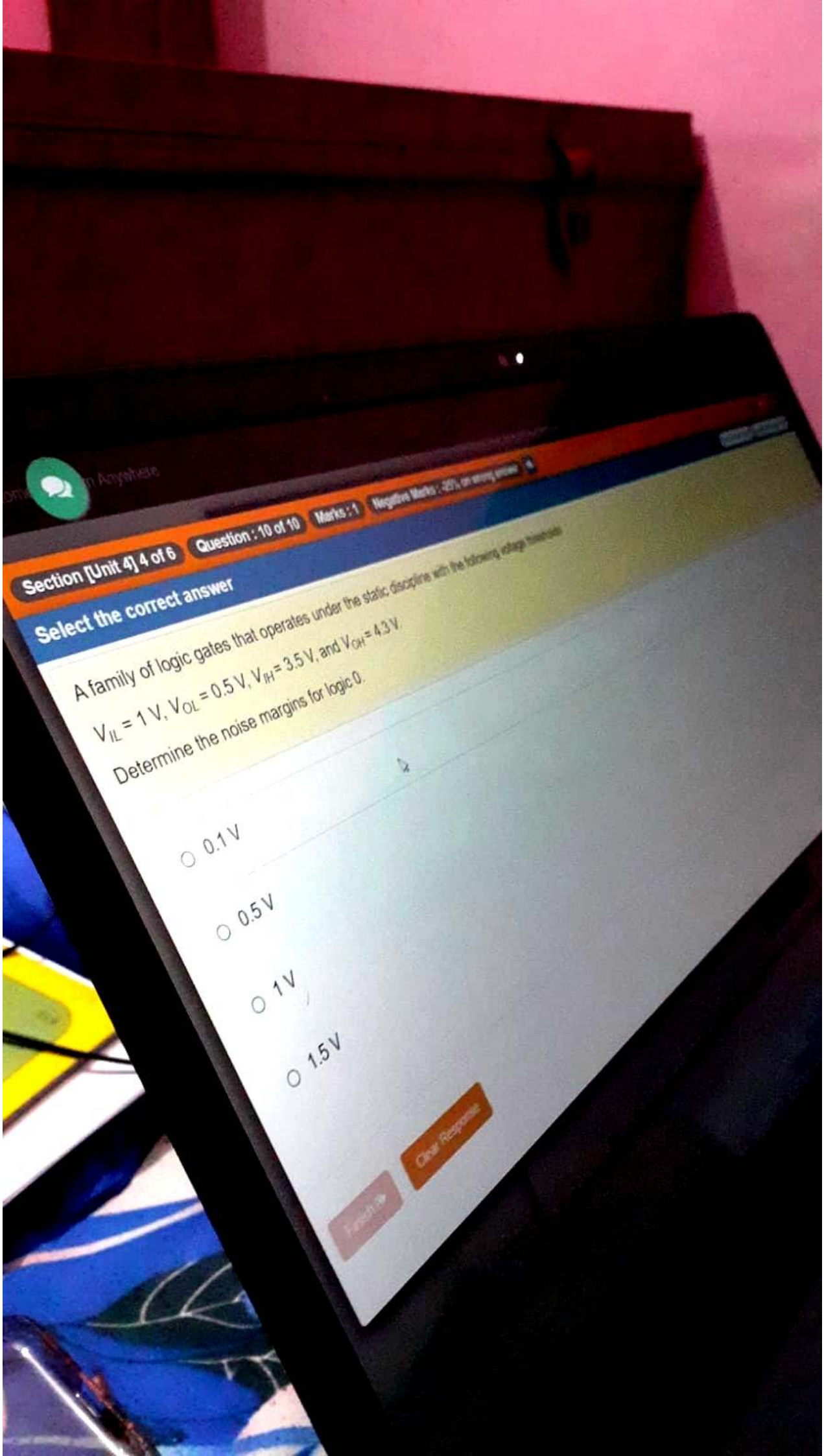
The output (Z) of following digital logic circuit is

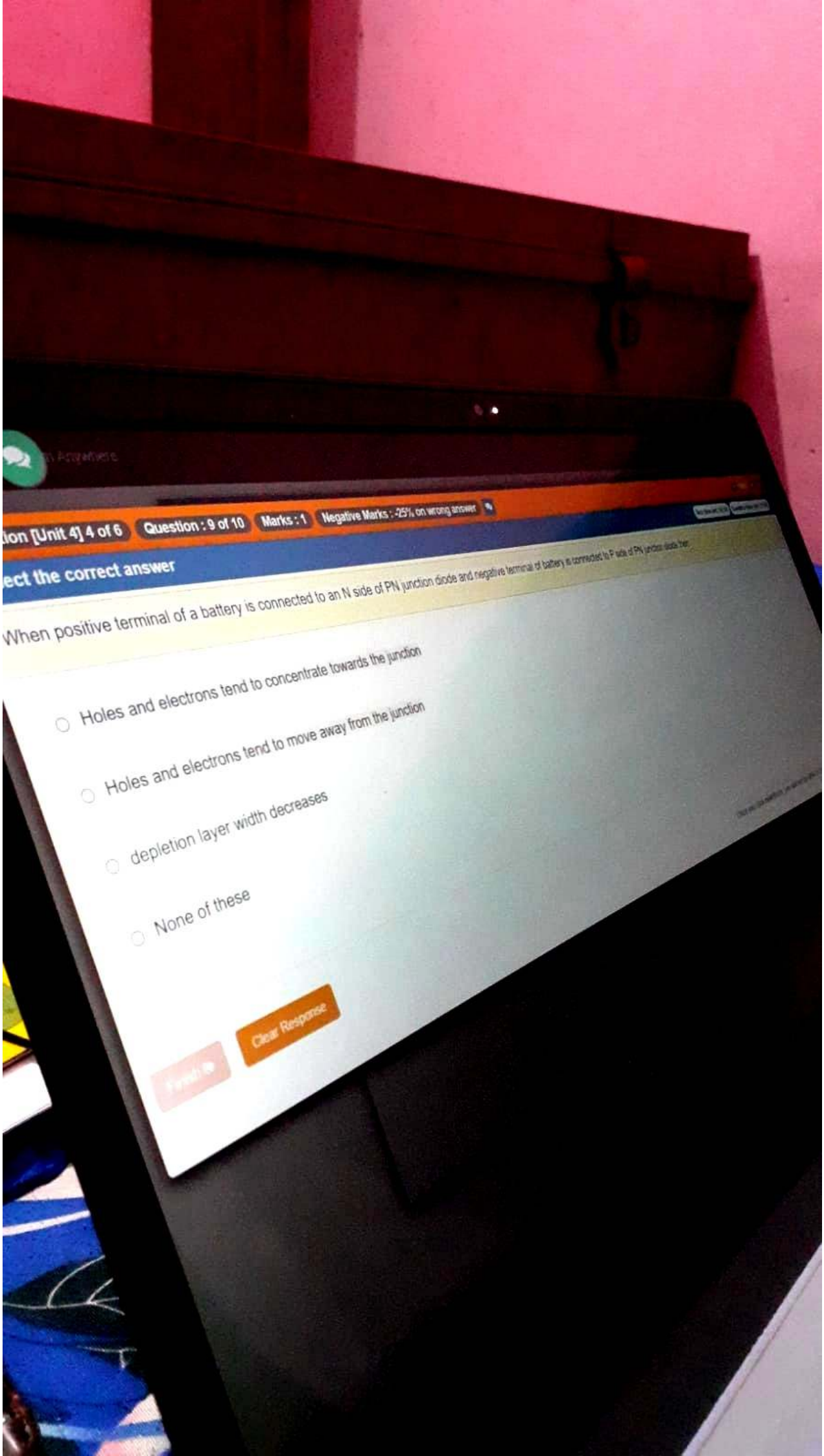


- X
- Y
- X+Y
- X.Y


Section [Unit 4] 4 of 6
Question : 7 of 10
Marks : 1
Select the correct answer
Which of the following term is equivalent of the Boolean function A.(A + B)
A
B
A.B
A+B
Clear Response


ection [Unit 4] 4 of 6
Question : 8 of 10
Marks : 1
Negative Marks : -25% on wrong answer
Select the correct answer
Which of the following is TRUE for n channel enhancement type MOSFET?
For the n-channel enhancement MOSFET, a drain current will only flow when a gate voltage
For the n-channel enhancement MOSFET, a drain current will only flow when a gate voltage
For the n-channel enhancement MOSFET, a drain current will only flow when a gate voltage
None of these
Clear Response

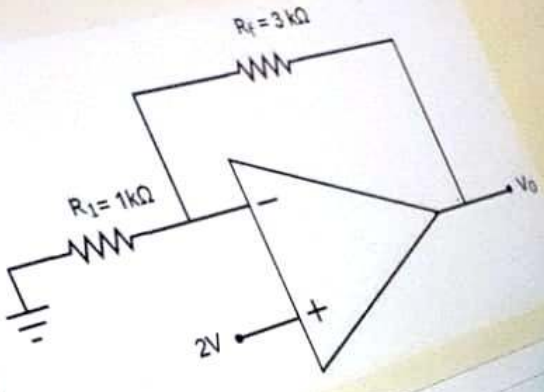

Section [Unit 4] 4 of 6
Question : 10 of 10
Marks : 1
Select the correct answer
A family of logic gates that operates under the static discipline with the following voltage thresholds:
V_{IL} = 1 V, V_{OL} = 0.5 V, V_{IH} = 3.5 V, and V_{OH} = 4.3 V.
Determine the noise margins for logic 0.
0.1 V
0.5 V
1 V
1.5 V
Clear Response


ion [Unit 4] 4 of 6
Question : 9 of 10
Marks : 1
Negative Marks : -25% on wrong answer
ect the correct answer
When positive terminal of a battery is connected to an N side of PN junction diode and negative terminal of battery is connected to P side of PN junction diode then
Holes and electrons tend to concentrate towards the junction
Holes and electrons tend to move away from the junction
depletion layer width decreases
None of these
Clear Response

ection [Unit 5] 5 of 6 | Question : 2 of 10 | Marks : 1 | Negative Marks : -0.25, no wrong answer

Select the correct answer

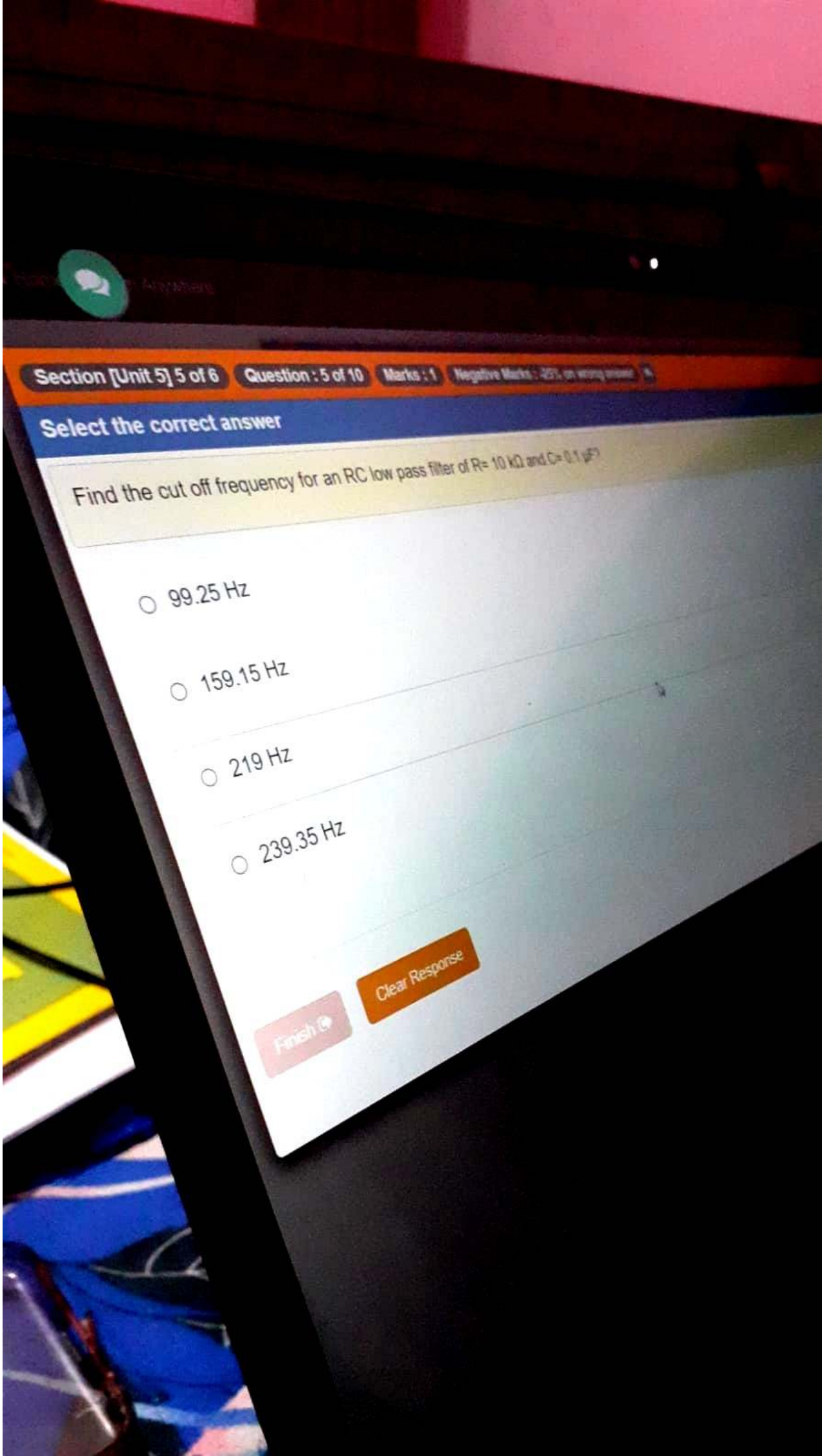
In following circuit, the output voltage V_0 is



- 2V
- 4V
- 8V
- 10V

Finish

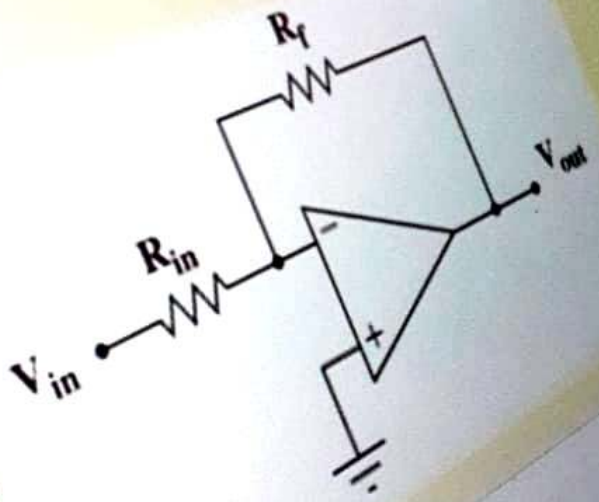
Clear Response


Section [Unit 5] 5 of 6
Question : 5 of 10
Marks : 1
Select the correct answer
Find the cut off frequency for an RC low pass filter of R= 10 kΩ and C= 0.1 μF?
99.25 Hz
159.15 Hz
219 Hz
239.35 Hz
Clear Response
Finish

ction [Unit 5] 5 of 6 | Question : 7 of 10 | Marks : 1 | Negative Marks : -25% on wrong answer

elect the correct answer

In following circuit R_{in} =1 kΩ and R_f =10 kΩ then calculate the output voltage V_{out} if input voltage is 2 mV.

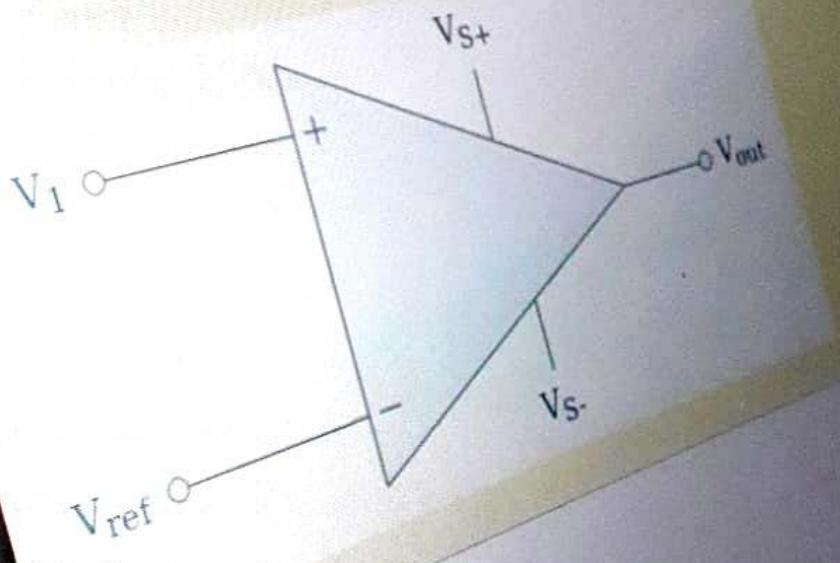


- 200 mV
- 250 mV
- -250 mV
- -200 mV

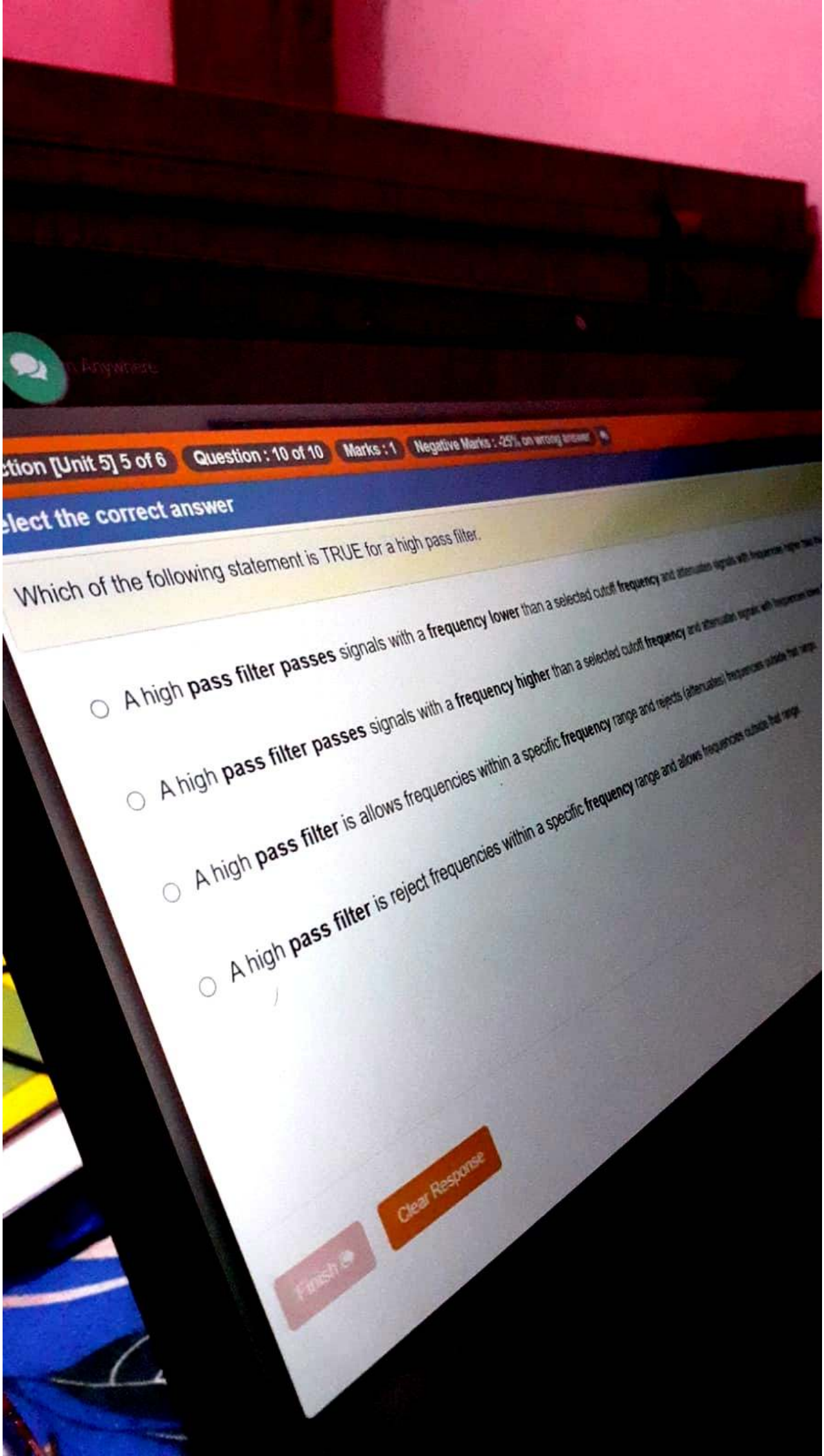
Section [Unit 5] 5 of 6 | Question : 6 of 10 | Marks : 1 | Negative Marks : -25% on wrong answer

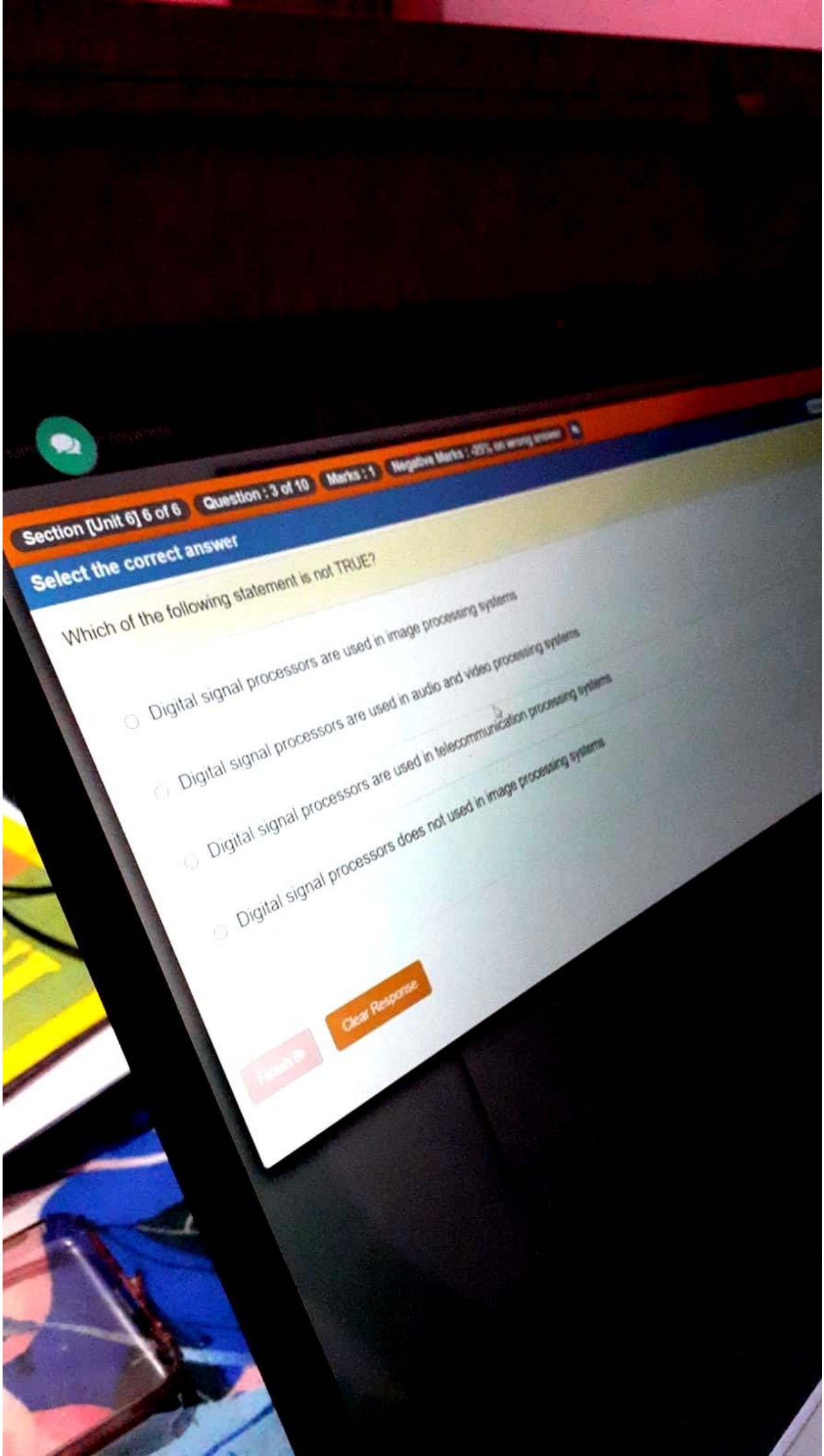
Select the correct answer

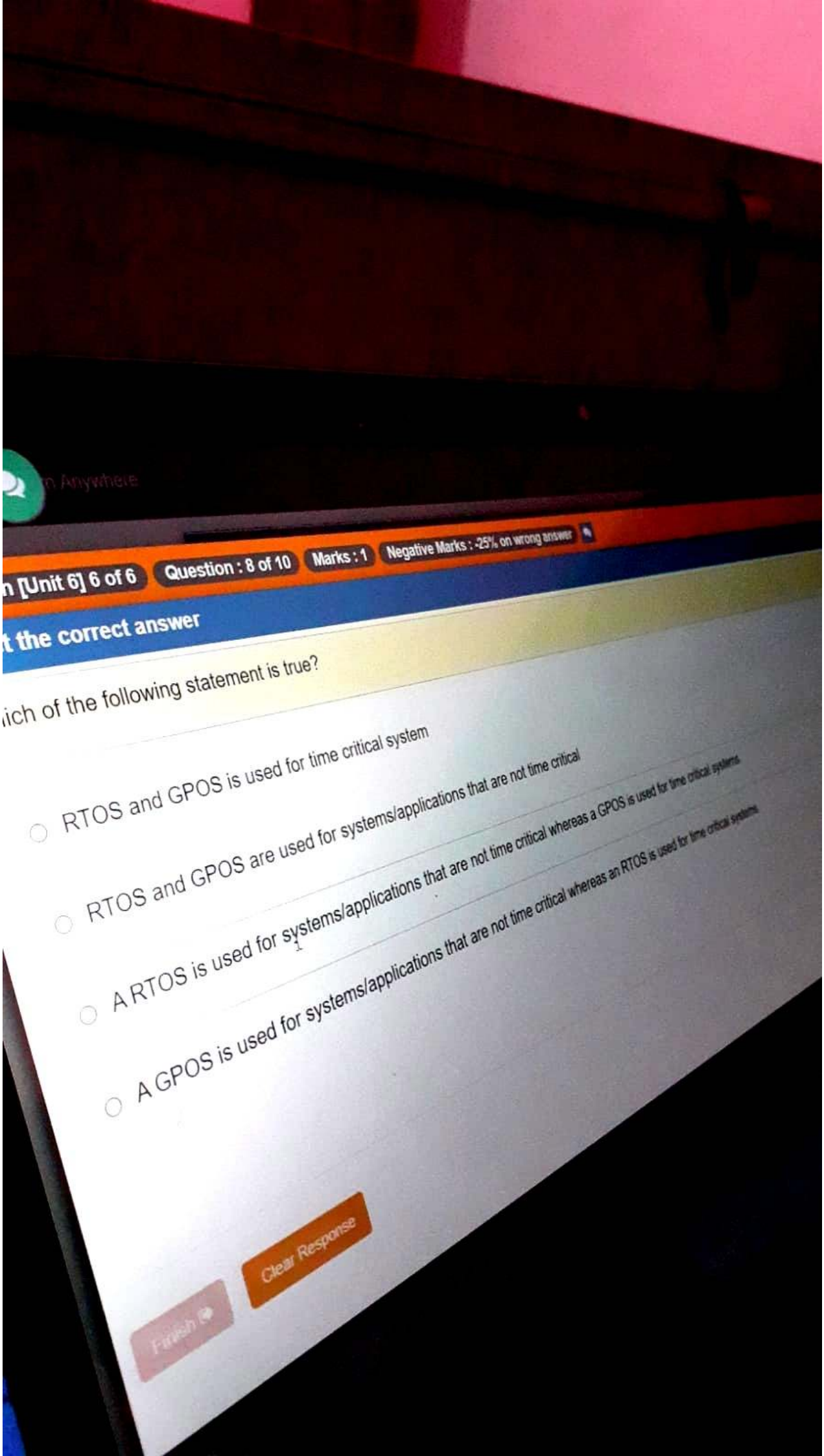
In following ideal OP AMP based comparator, if $V_1 > V_{ref}$ then V_{out} will be

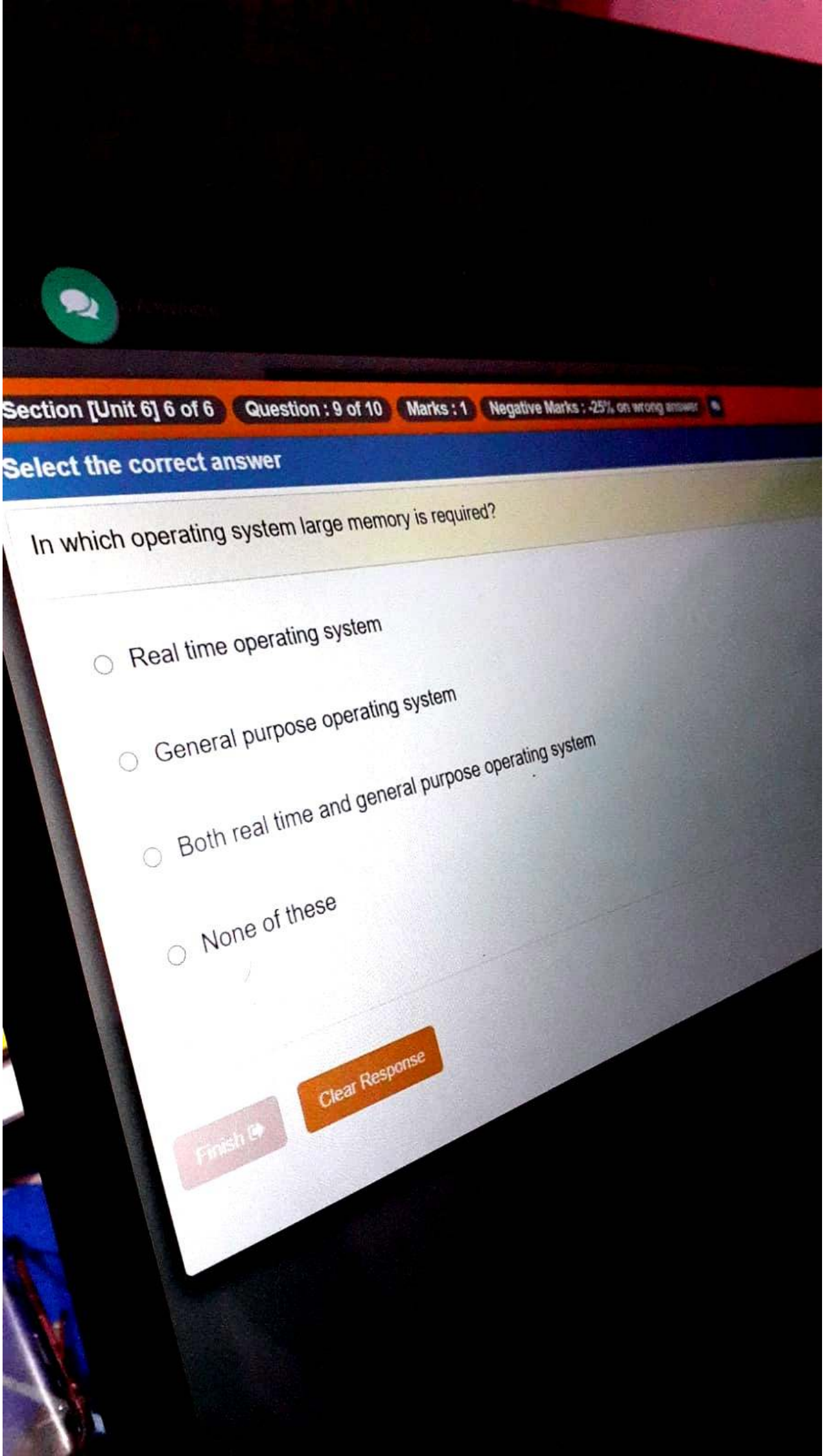


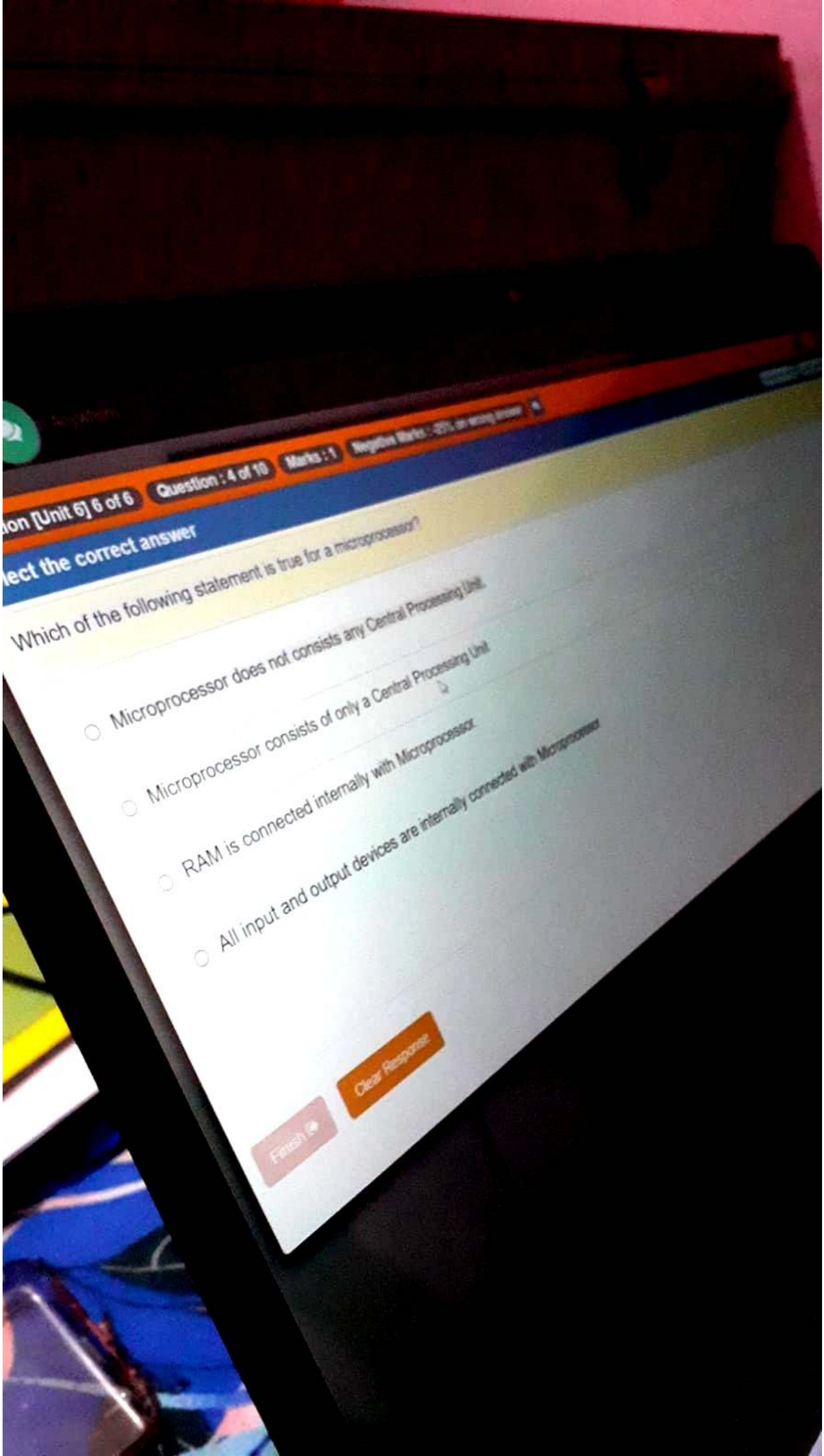
- Vs-
- Vs+
- 0
- V1

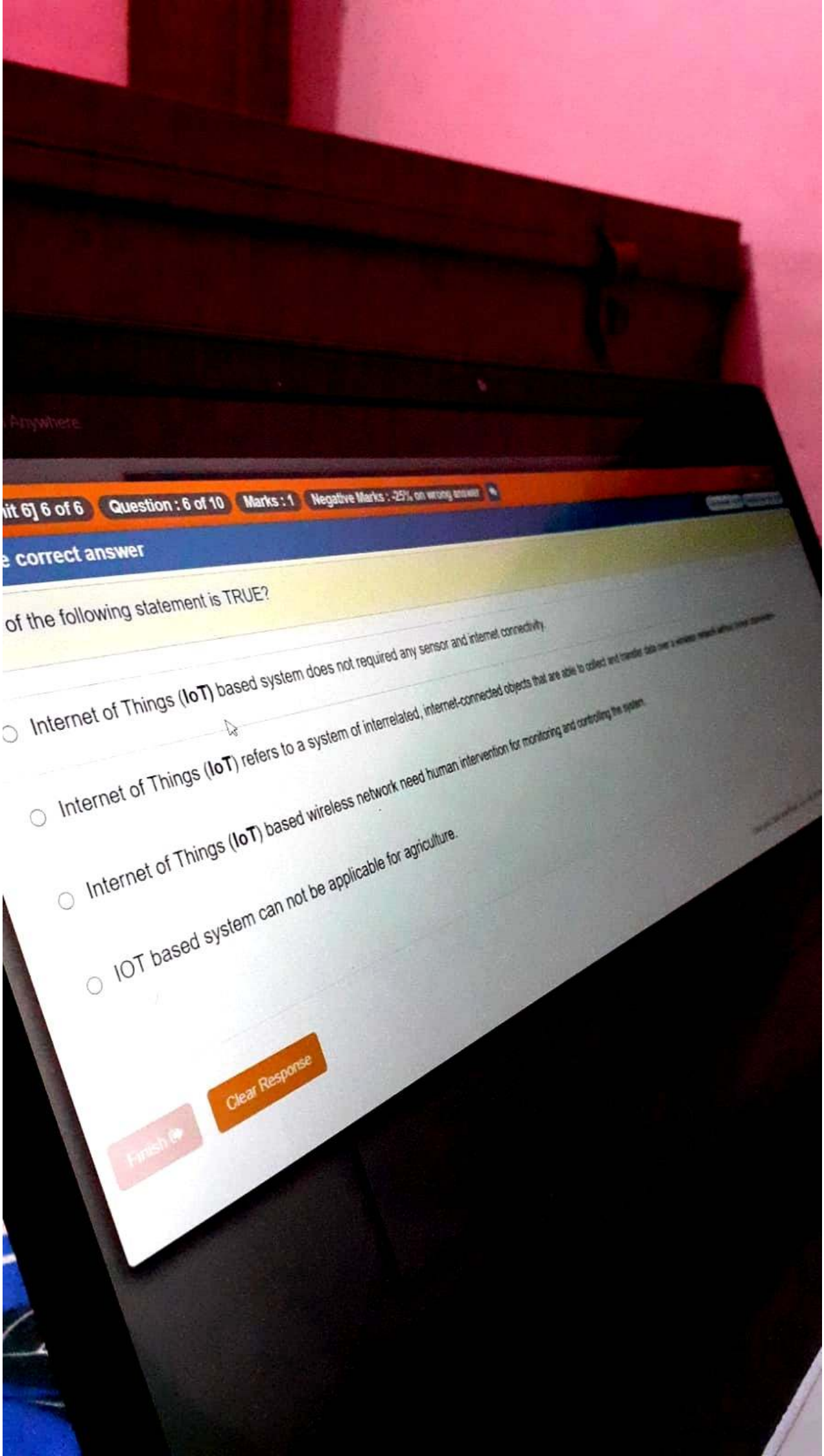

ction [Unit 5] 5 of 6
Question : 10 of 10
Marks : 1
Negative Marks : -25% on wrong answer
elect the correct answer
Which of the following statement is TRUE for a high pass filter.
A high pass filter passes signals with a frequency lower than a selected cutoff frequency
A high pass filter passes signals with a frequency higher than a selected cutoff frequency
A high pass filter is allows frequencies within a specific frequency range and rejects
A high pass filter is reject frequencies within a specific frequency range and allows
Clear Response
Finish

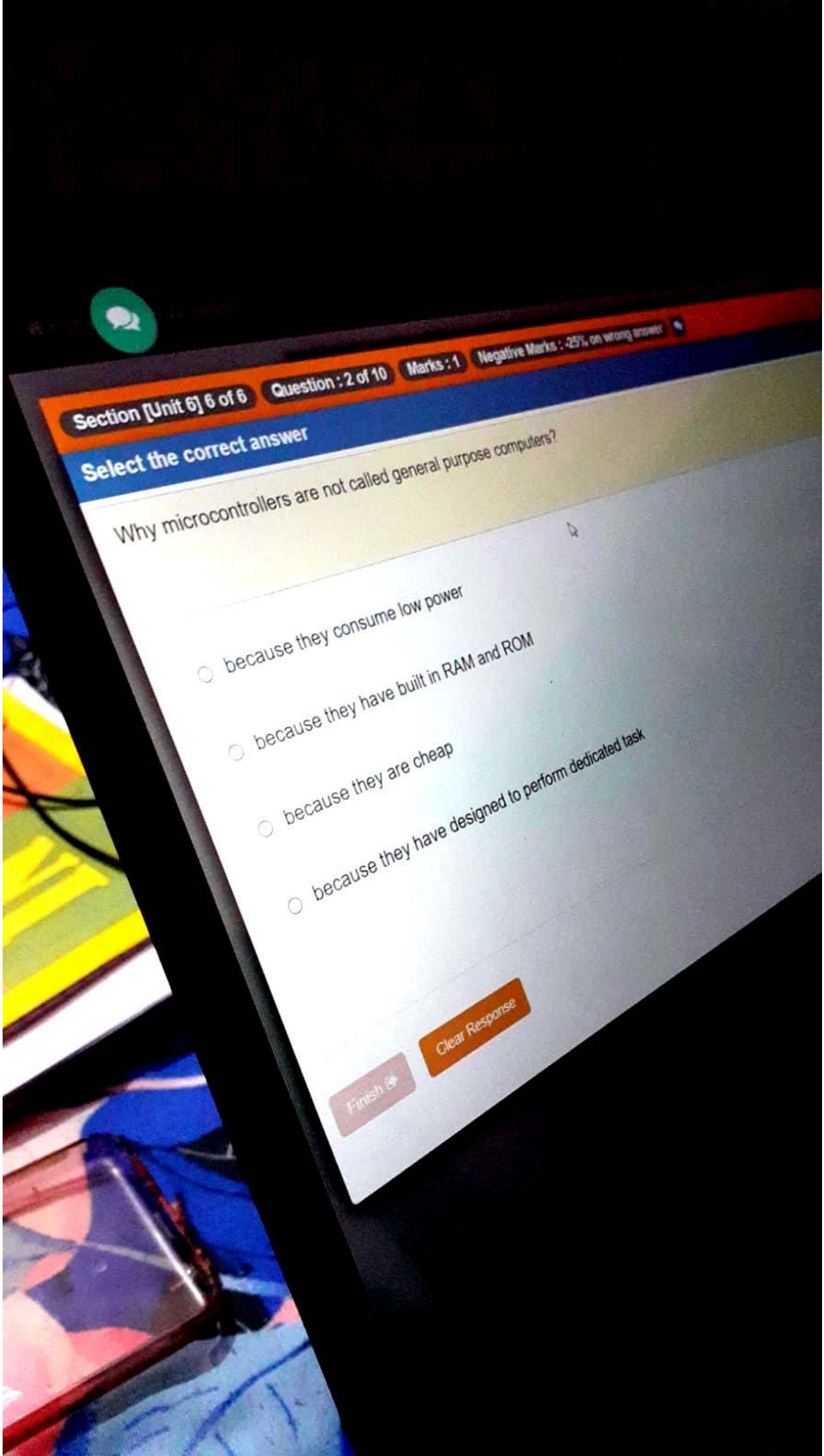

Section [Unit 6] 6 of 6
Question : 3 of 10
Marks : 1
Select the correct answer
Which of the following statement is not TRUE?
Digital signal processors are used in image processing systems
Digital signal processors are used in audio and video processing systems
Digital signal processors are used in telecommunication processing systems
Digital signal processors does not used in image processing systems
Clear Response

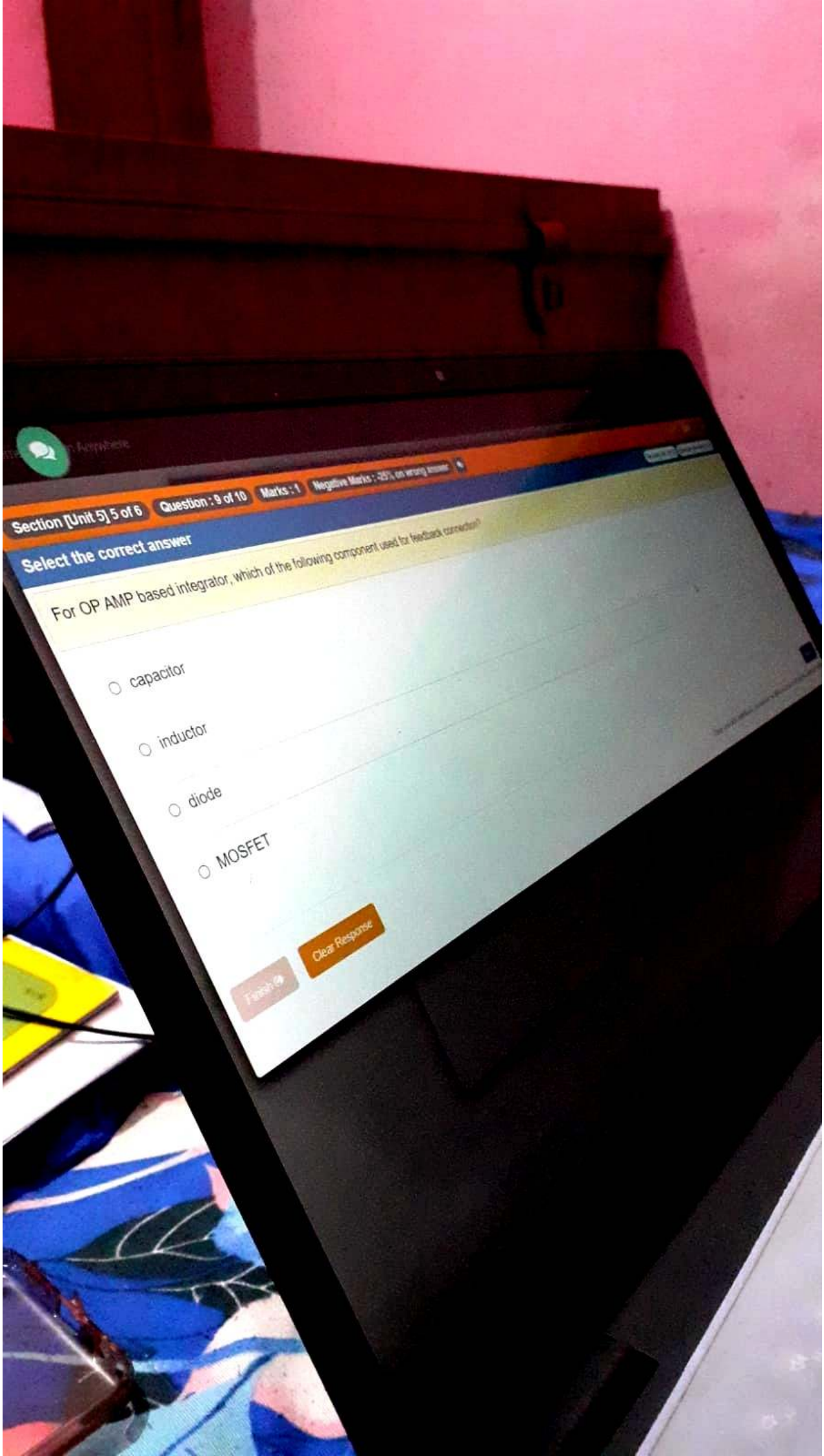

n Anywhere
n [Unit 6] 6 of 6
Question : 8 of 10
Marks : 1
Negative Marks : -25% on wrong answer
t the correct answer
ich of the following statement is true?
RTOS and GPOS is used for time critical system
RTOS and GPOS are used for systems/applications that are not time critical
A RTOS is used for systems/applications that are not time critical whereas a GPOS is used for time critical systems
A GPOS is used for systems/applications that are not time critical whereas an RTOS is used for time critical systems
Clear Response
Finish

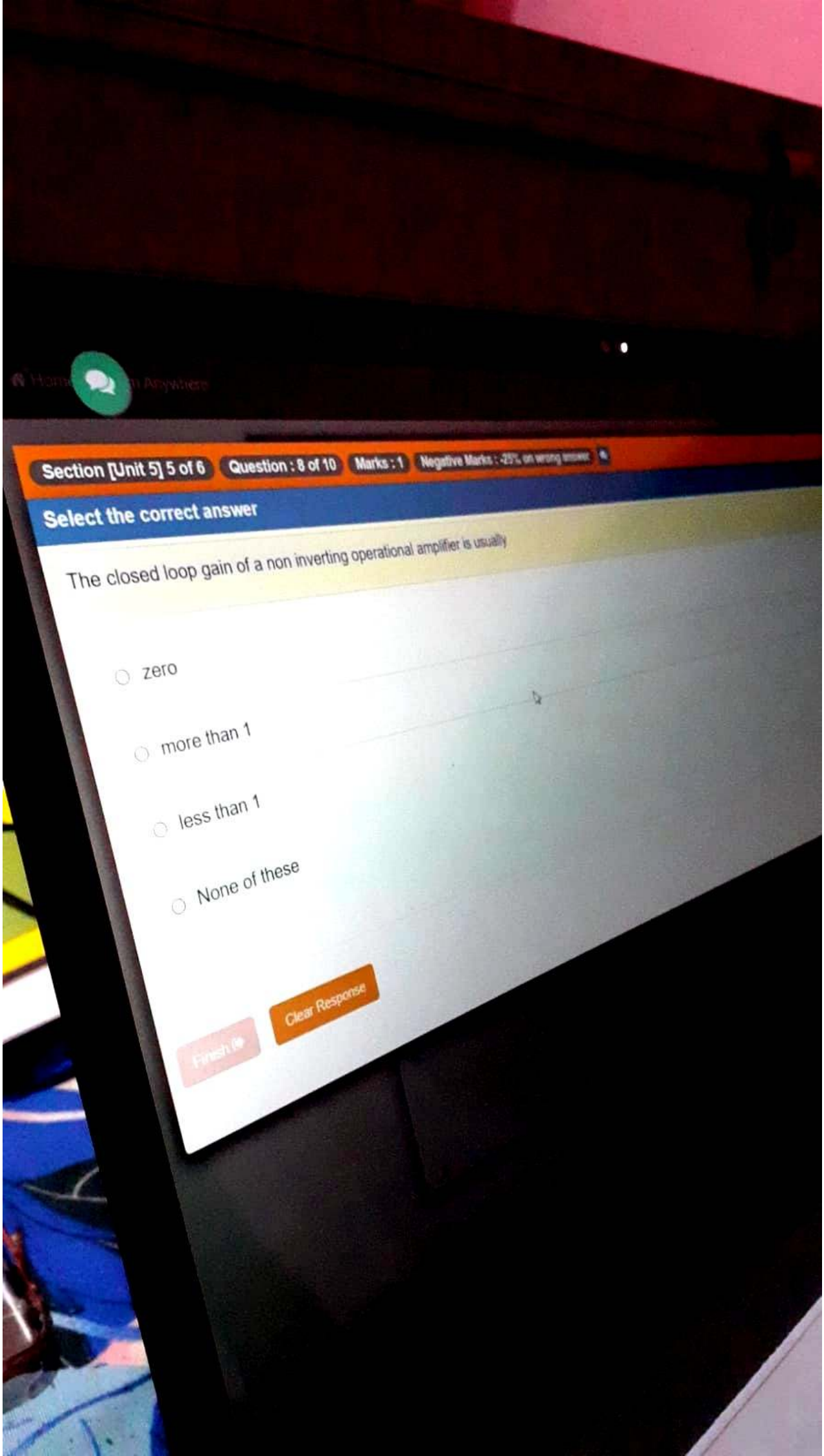

Section [Unit 6] 6 of 6
Question : 9 of 10
Marks : 1
Negative Marks : -25% on wrong answer
Select the correct answer
In which operating system large memory is required?
Real time operating system
General purpose operating system
Both real time and general purpose operating system
None of these
Clear Response
Finish


on [Unit 6] 6 of 6
Question : 4 of 10
Marks : 1
lect the correct answer
Which of the following statement is true for a microprocessor?
Microprocessor does not consists any Central Processing Unit.
Microprocessor consists of only a Central Processing Unit.
RAM is connected internally with Microprocessor.
All input and output devices are internally connected with Microprocessor
Clear Response
Finish


Anywhere
it 6] 6 of 6
Question : 6 of 10
Marks : 1
Negative Marks : -25% on wrong answer
e correct answer
of the following statement is TRUE?
Internet of Things (IoT) based system does not required any sensor and internet connectivity
Internet of Things (IoT) refers to a system of interrelated, internet-connected objects that are able to collect and transfer
Internet of Things (IoT) based wireless network need human intervention for monitoring and controlling the system
IOT based system can not be applicable for agriculture.
Clear Response
Finish


Section [Unit 6] 6 of 6
Question : 2 of 10
Marks : 1
Negative Marks : -25% on wrong answer
Select the correct answer
Why microcontrollers are not called general purpose computers?
because they consume low power
because they have built in RAM and ROM
because they are cheap
because they have designed to perform dedicated task
Clear Response
Finish

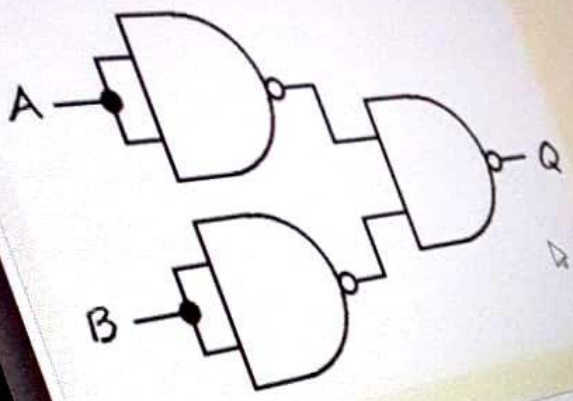

Section [Unit 5] 5 of 6
Question : 9 of 10
Marks : 1
Select the correct answer
For OP AMP based integrator, which of the following component used for feedback connection?
capacitor
inductor
diode
MOSFET
Clear Response
Finish


Section [Unit 5] 5 of 6
Question : 8 of 10
Marks : 1
Select the correct answer
The closed loop gain of a non inverting operational amplifier is usually
zero
more than 1
less than 1
None of these
Clear Response

Section [Unit 4] 4 of 6 | Question : 6 of 10 | Marks : 1 | Negative Marks : -0.25, for wrong answer

Select the correct answer

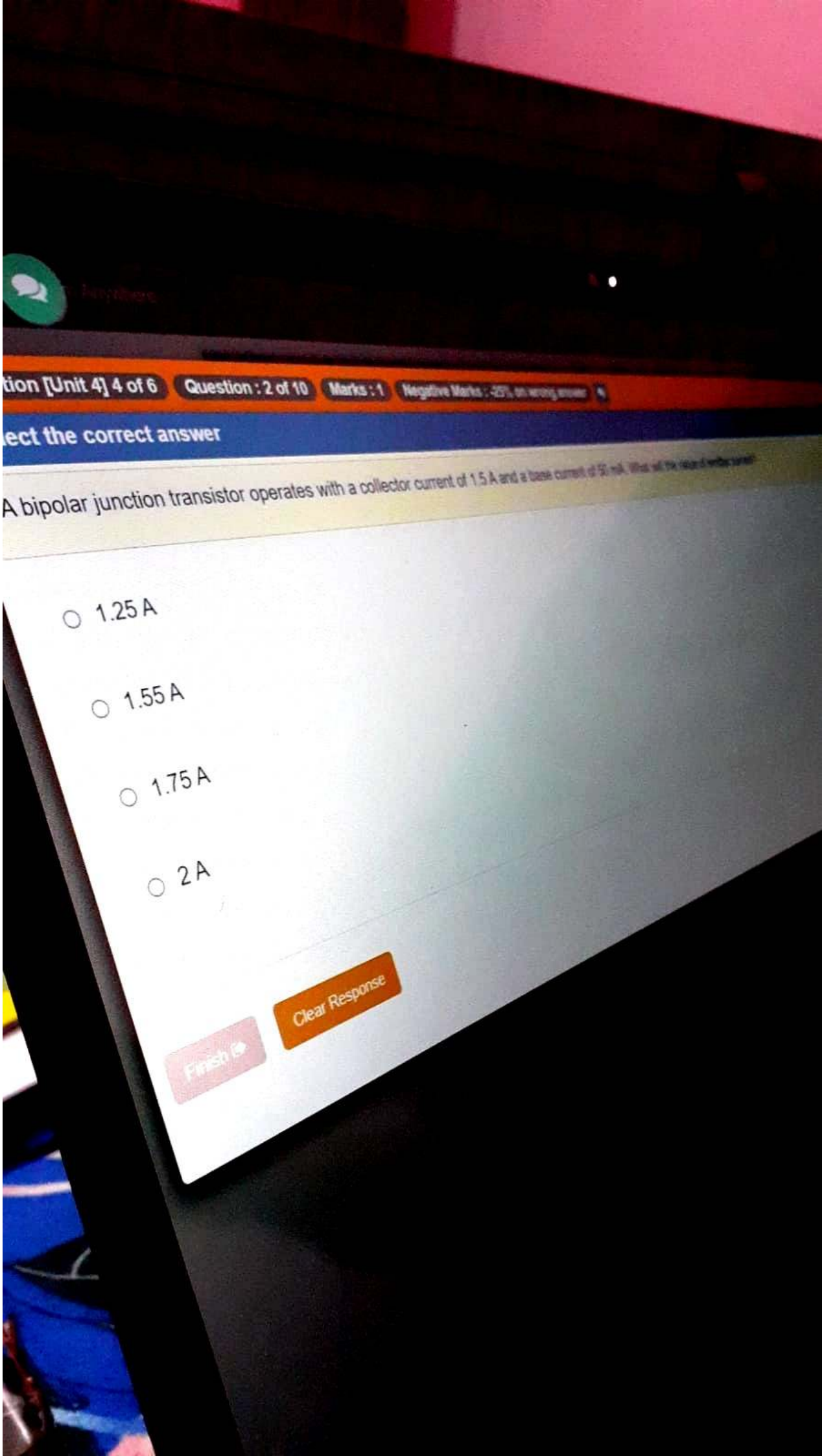
The output of following digital logic circuit is

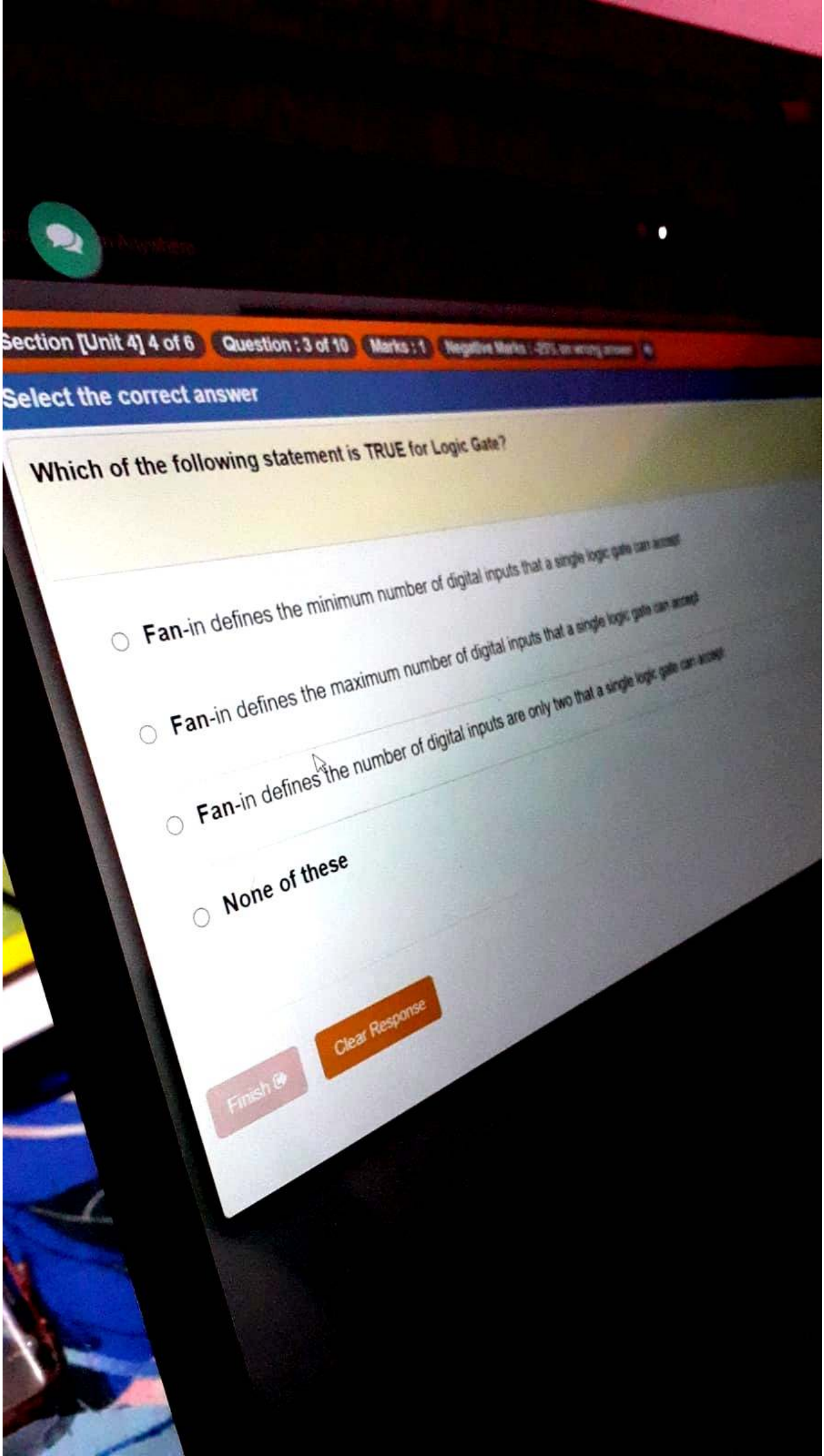


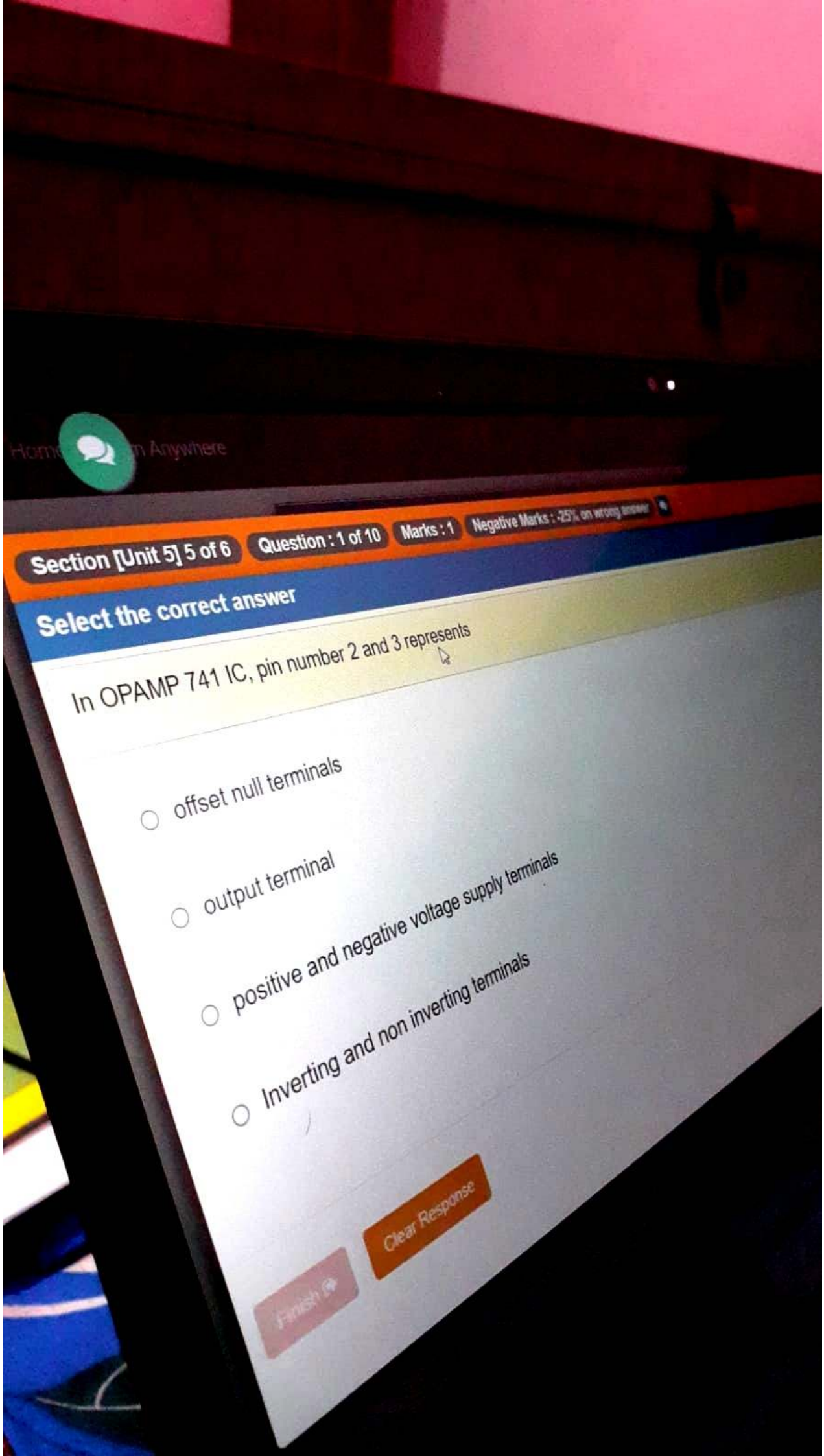
- A.B
- A+B
- A.(A+B)
- B.(A+B)

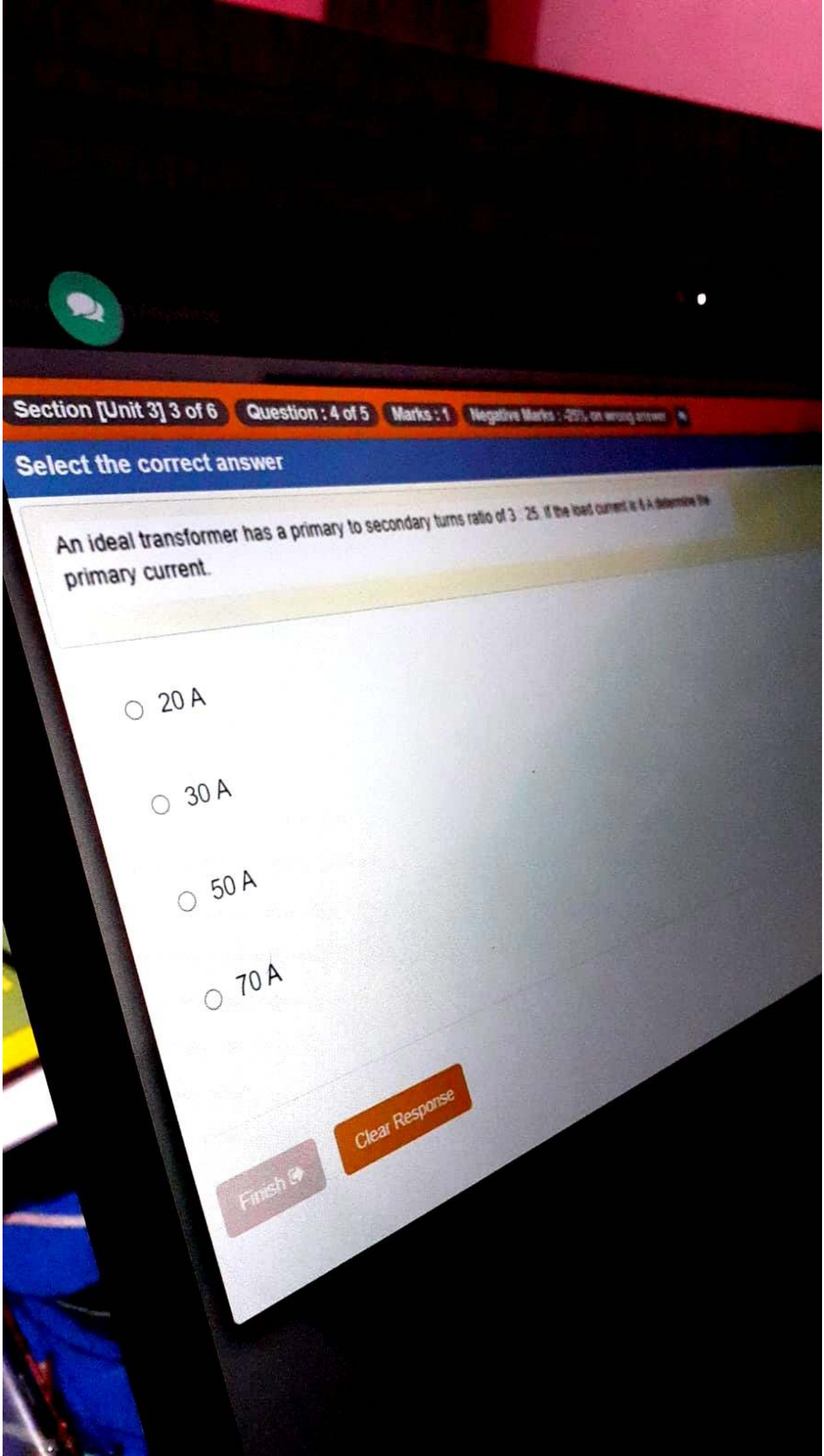
Clear Response

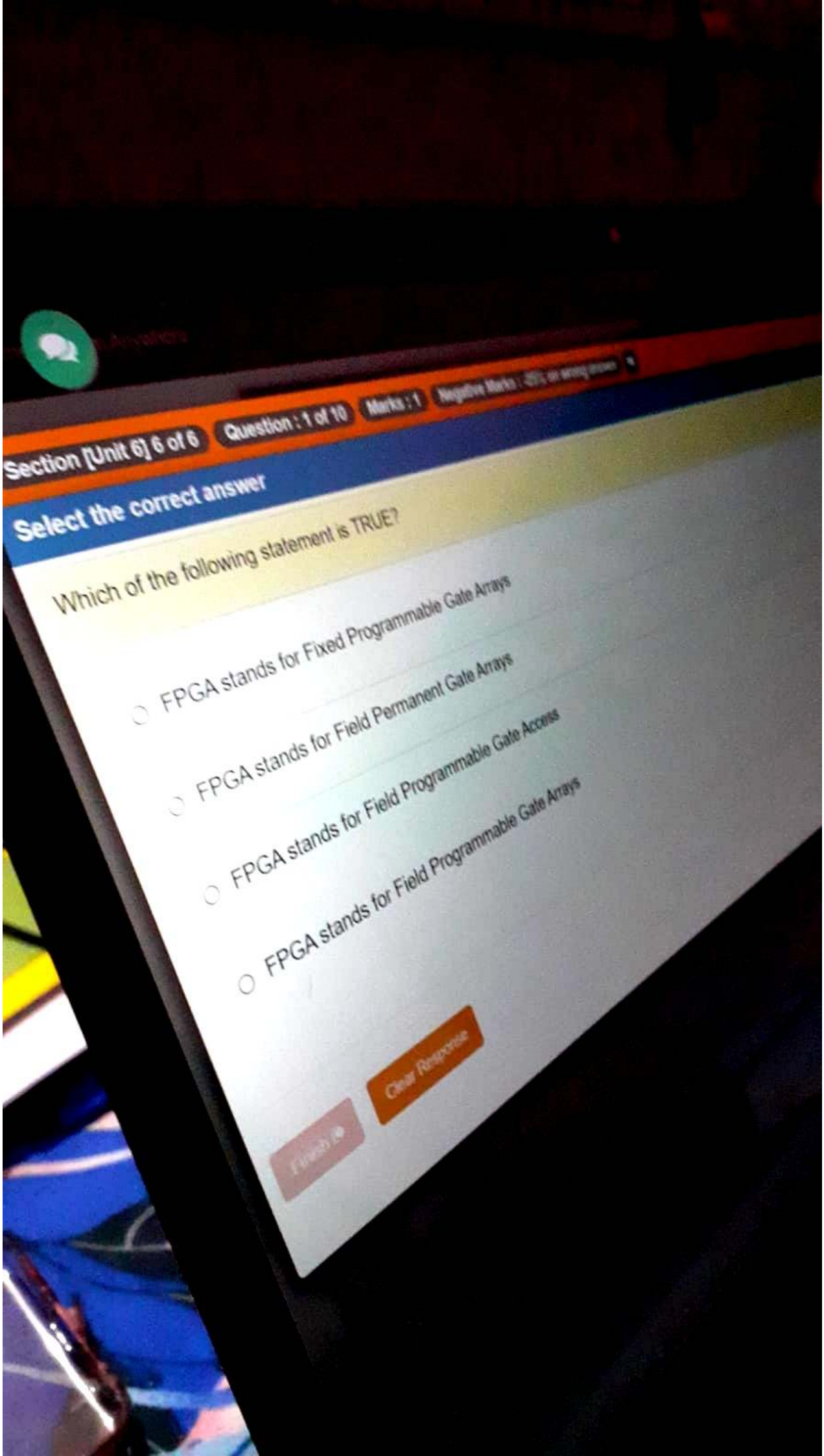
Finish

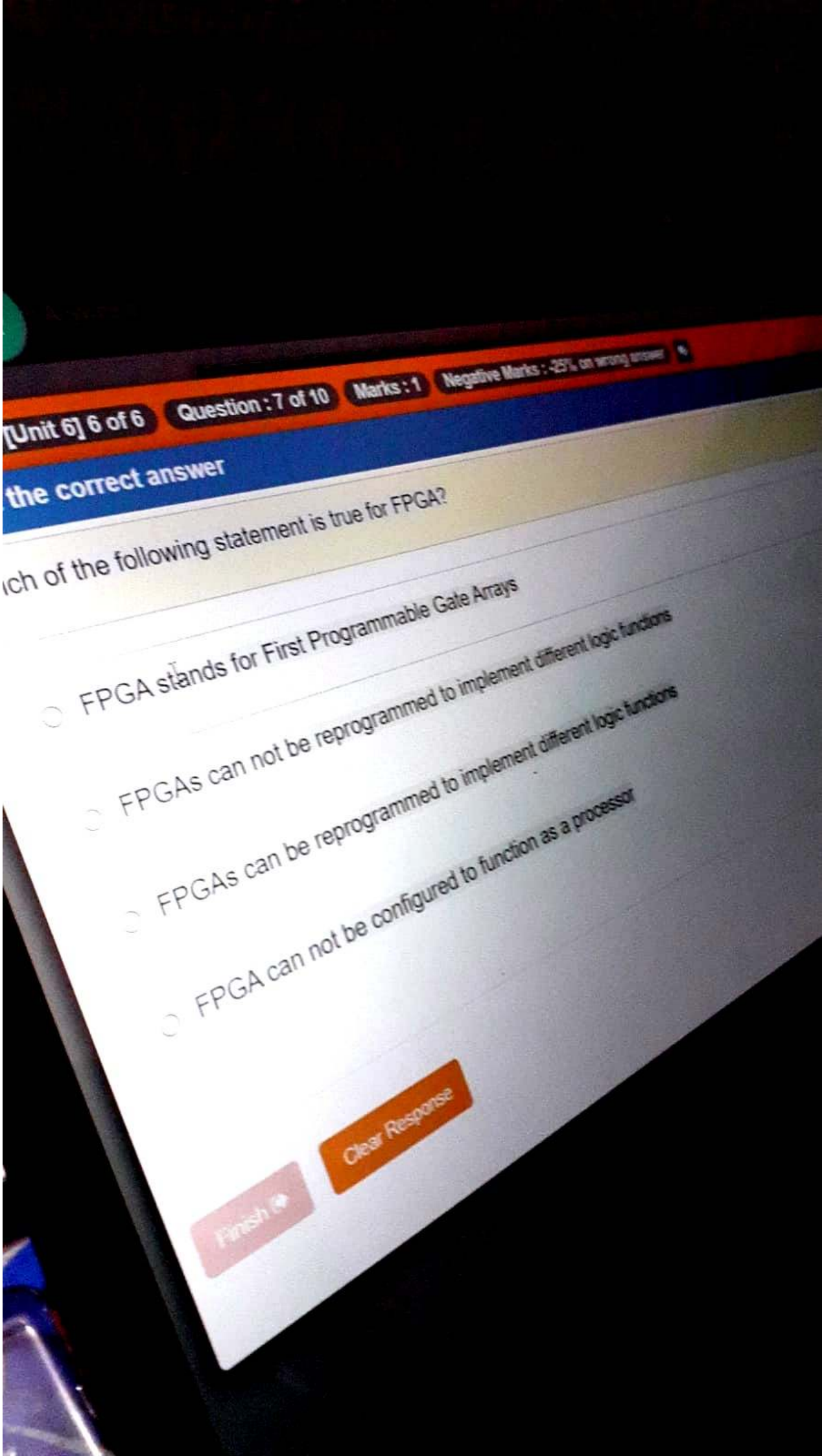

tion [Unit 4] 4 of 6
Question : 2 of 10
Marks : 1
ect the correct answer
A bipolar junction transistor operates with a collector current of 1.5 A and a base current of
1.25 A
1.55 A
1.75 A
2 A
Clear Response
Finish

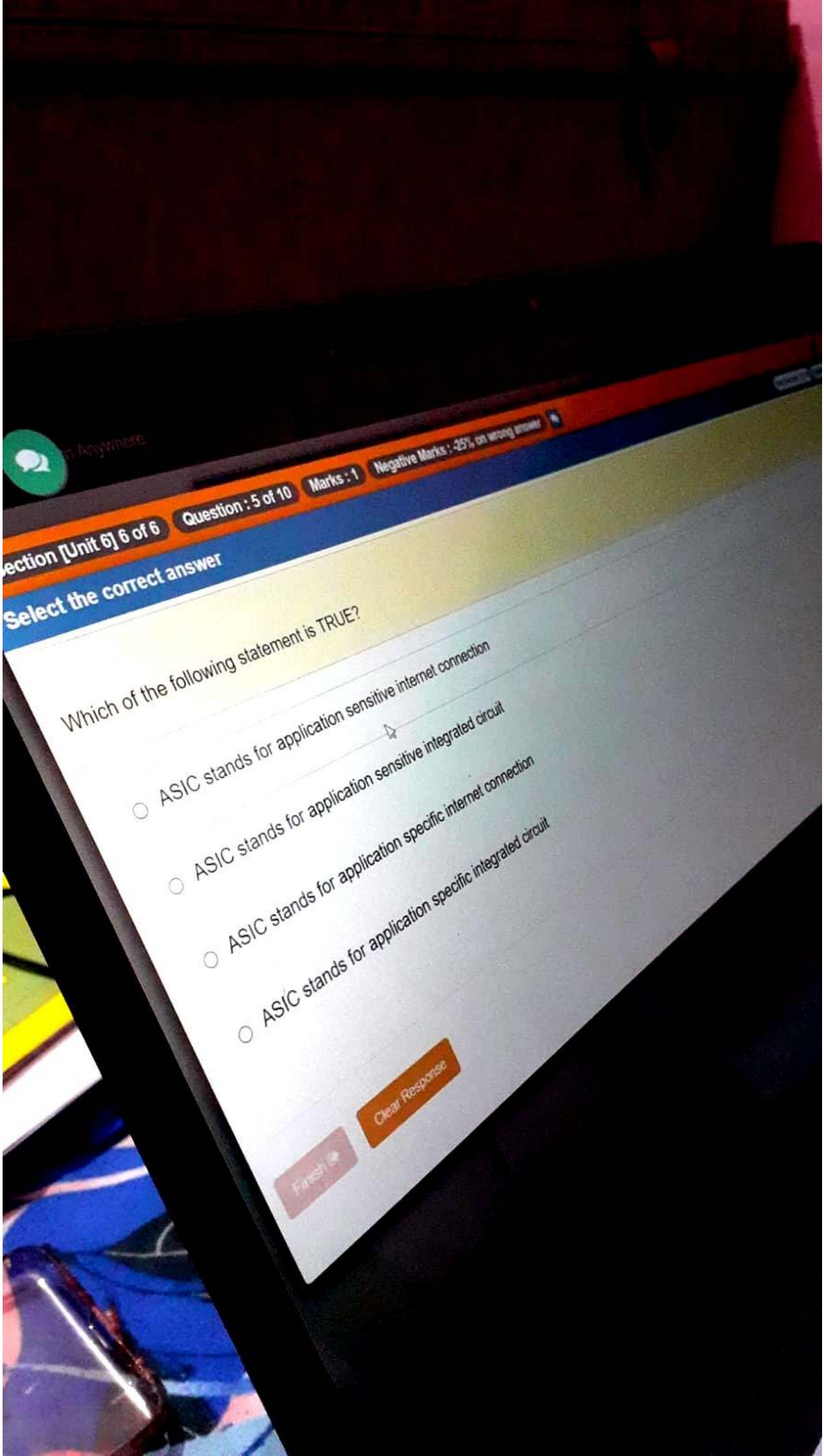

Section [Unit 4] 4 of 6
Question : 3 of 10
Marks : 1
Select the correct answer
Which of the following statement is TRUE for Logic Gate?
Fan-in defines the minimum number of digital inputs that a single logic gate can accept
Fan-in defines the maximum number of digital inputs that a single logic gate can accept
Fan-in defines the number of digital inputs are only two that a single logic gate can accept
None of these
Clear Response
Finish


Section [Unit 5] 5 of 6
Question : 1 of 10
Marks : 1
Negative Marks : -25% on wrong answer
Select the correct answer
In OPAMP 741 IC, pin number 2 and 3 represents
offset null terminals
output terminal
positive and negative voltage supply terminals
Inverting and non inverting terminals
Clear Response
Finish


Section [Unit 3] 3 of 6
Question : 4 of 5
Marks : 1
Select the correct answer
An ideal transformer has a primary to secondary turns ratio of 3 : 25. If the load current is 6 A determine the primary current.
20 A
30 A
50 A
70 A
Finish
Clear Response


Section [Unit 6] 6 of 6
Question : 1 of 10
Marks : 1
Select the correct answer
Which of the following statement is TRUE?
FPGA stands for Fixed Programmable Gate Arrays
FPGA stands for Field Permanent Gate Arrays
FPGA stands for Field Programmable Gate Access
FPGA stands for Field Programmable Gate Arrays
Clear Response

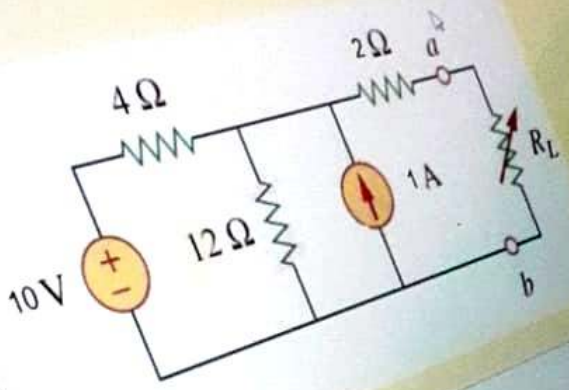

[Unit 6] 6 of 6
Question : 7 of 10
Marks : 1
Negative Marks : -25% on wrong answer
the correct answer
ich of the following statement is true for FPGA?
FPGA stands for First Programmable Gate Arrays
FPGAs can not be reprogrammed to implement different logic funtions
FPGAs can be reprogrammed to implement different logic functions
FPGA can not be configured to function as a processor
Clear Response
Finish


Anywhere
ection [Unit 6] 6 of 6
Question : 5 of 10
Marks : 1
Negative Marks : -25% on wrong answer
Select the correct answer
Which of the following statement is TRUE?
ASIC stands for application sensitive internet connection
ASIC stands for application sensitive integrated circuit
ASIC stands for application specific internet connection
ASIC stands for application specific integrated circuit
Clear Response
Finish

Section [Unit 1] 1 of 6 | Question : 5 of 5 | Marks : 1 | Negative Marks : -25% on wrong answer

Select the correct answer

In following circuit find the value of Thevenin resistance (R_{TH}) between the terminal a and b



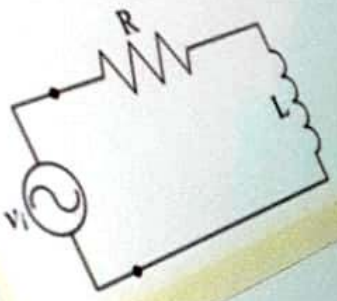
- 5Ω
- 10Ω
- 12Ω
- 16Ω

Clear Response

ection [Unit 2] 2 of 6 | Question : 1 of 5 | Marks : 1 | Negative Marks : -0.33, on wrong answer

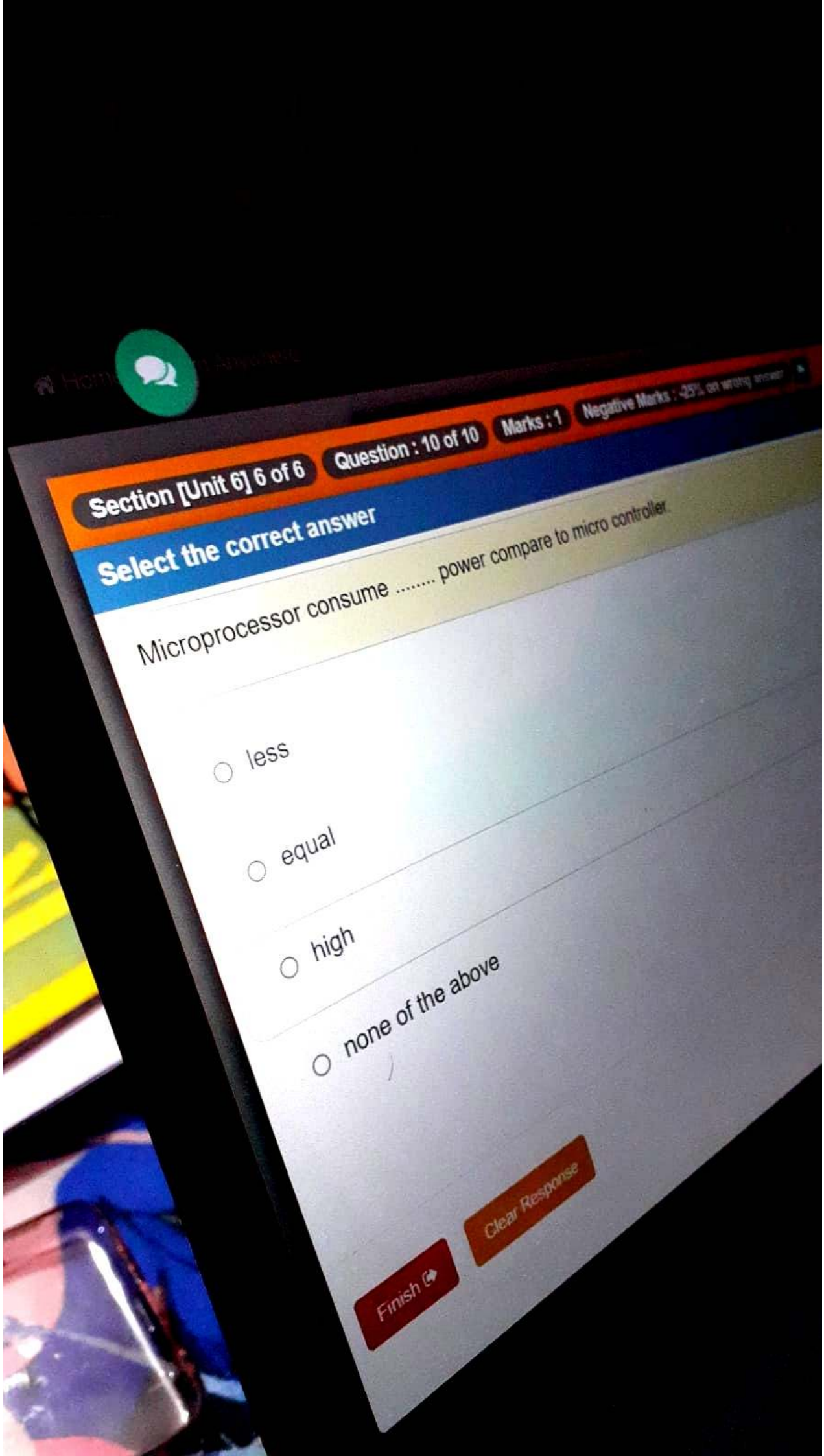
Select the correct answer

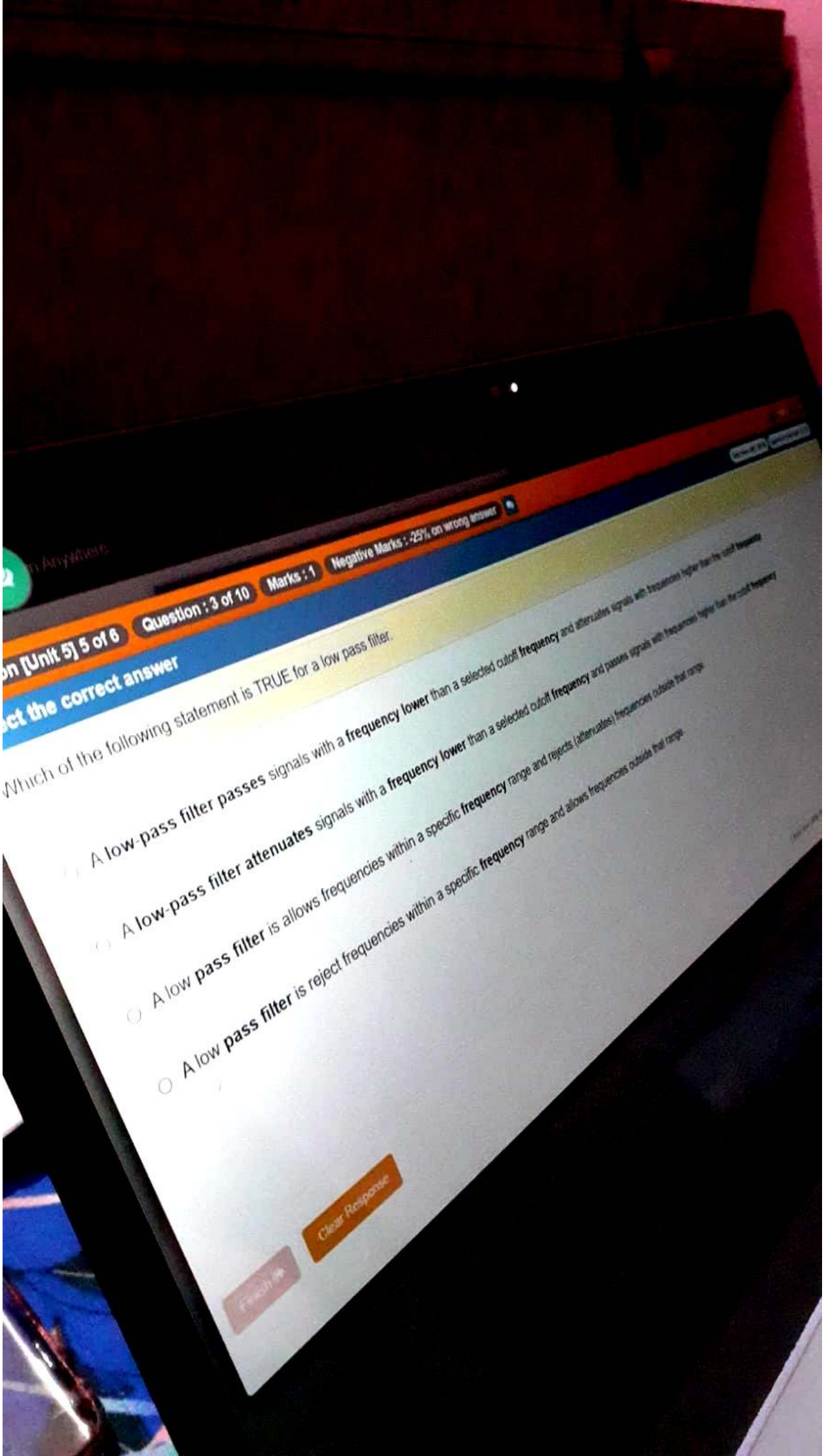
In following circuit, the resistance of a resistor is R= 25 Ω and inductive reactance of an inductor is X_L = 43.3 Ohm. What is the value of power factor of the circuit if supply AC voltage is 230 V at 50 Hz.

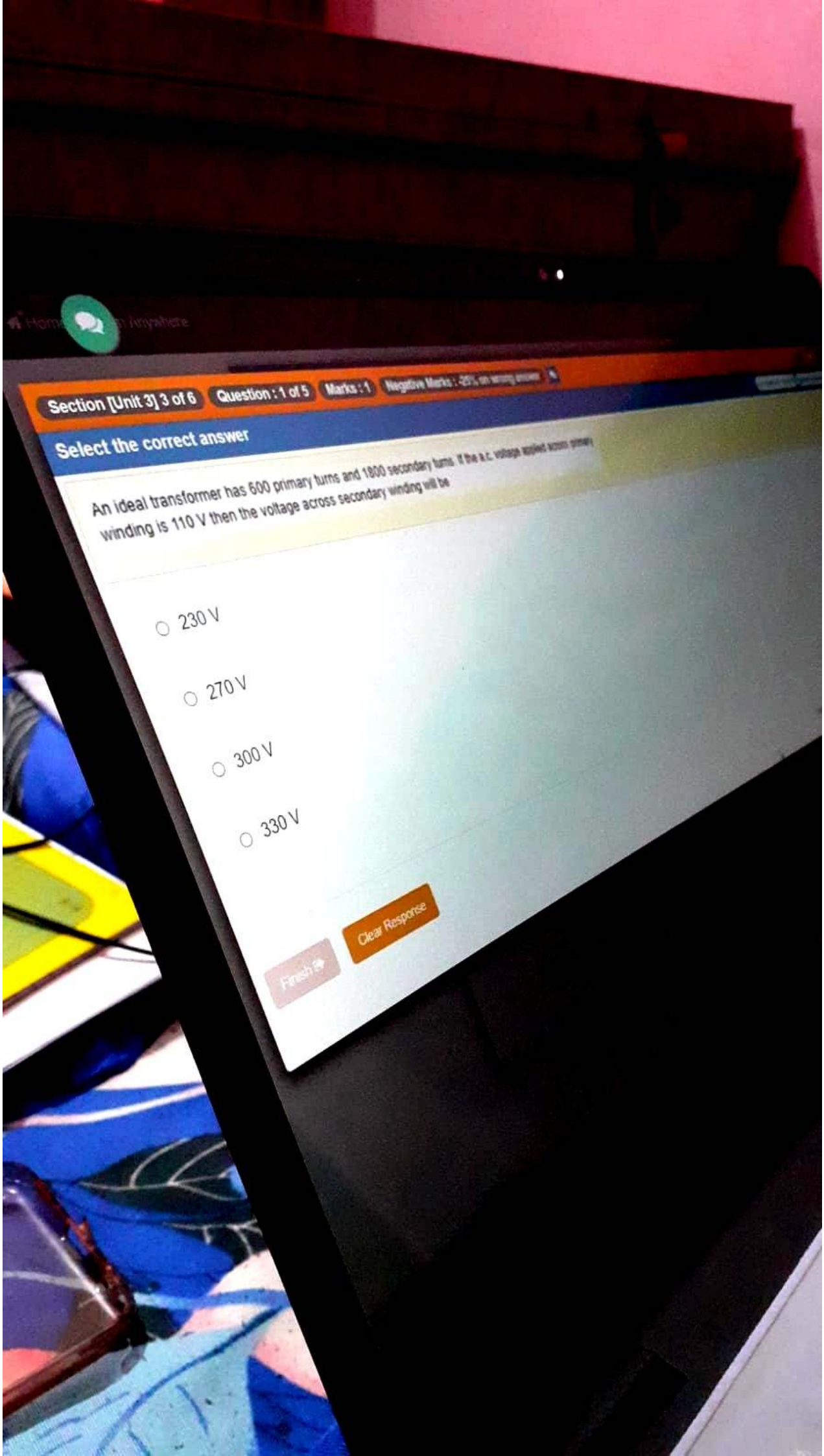


- 0.9
- 0.8
- 0.7
- 0.6

Clear Response


Section [Unit 6] 6 of 6
Question : 10 of 10
Marks : 1
Select the correct answer
Microprocessor consume ..... power compare to micro controller
less
equal
high
none of the above
Finish
Clear Response

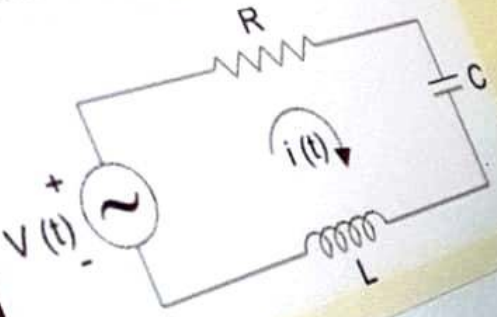

on [Unit 5] 5 of 6
Question : 3 of 10
Marks : 1
Negative Marks : -25% on wrong answer
ct the correct answer
Which of the following statement is TRUE for a low pass filter.
A low-pass filter passes signals with a frequency lower than a selected cutoff frequency and attenuates signals with frequencies higher than the cutoff frequency
A low-pass filter attenuates signals with a frequency lower than a selected cutoff frequency and passes signals with frequencies higher than the cutoff frequency
A low pass filter is allows frequencies within a specific frequency range and rejects (attenuates) frequencies outside that range
A low pass filter is reject frequencies within a specific frequency range and allows frequencies outside that range
Clear Response


Section [Unit 3] 3 of 6
Question : 1 of 5
Marks : 1
Select the correct answer
An ideal transformer has 600 primary turns and 1800 secondary turns. If the a.c. voltage applied across primary winding is 110 V then the voltage across secondary winding will be
230 V
270 V
300 V
330 V
Clear Response
Finish

Section [Unit 2] 2 of 6 | Question : 5 of 5 | Marks : 1 | Negative Marks : -25% on wrong answer

Select the correct answer

In following circuit, the resistance of a resistor is R= 15 Ω, capacitive reactance of capacitor is X_C = 10 Ω and inductive reactance of an inductor is X_L = 2 Ω. What is the value of impedance of this circuit if supply AC voltage is 230 V at 50 Hz.



- 15 Ω
- 16 Ω
- 17 Ω
- 18 Ω

Clear Response