



Sanjay Ghodawat University, Kolhapur

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

2018-19

EXM/P/09/01

Year and Program:

School of Technology

Department of Engineering

2018-19

Course Code: FYT106

Course Title: Elements of Electronics Engineering

Semester – II

Day and Date Monday
03/06/2019

End Semester Examination (ESE)

Time: 3 Hrs. Max Marks: 100

10.30 am to 1.30 pm.

Instructions:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.

Q.1 Attempt any two

	Marks	Bloom's Level	CO
a) With the help of neat diagram & waveforms explain the working of Centre tapped Full wave rectifier	07	L ₂	CO1

OR

a) Compare p-n junction diode and Zener diode	07	L ₂	CO1
b) With the help of neat circuit diagram explain the working of transistor	08	L ₂	CO2

OR

b) With the help of neat circuit diagram and input-output characteristics, explain the working of BJT (NPN) common Base configuration?	08	L ₂	CO2
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Q.2 Attempt any two

a) Design basic gates using NOR gate only	08	L ₃	CO3
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OR

a) a) $(45.25)_{10} \rightarrow (?)_8$ b) $(10101.101)_2 \rightarrow (?)_{10}$ c) $(57.65)_8 \rightarrow (?)_{10}$ d) $(425)_8 \rightarrow (?)_{16}$	08	L ₃	CO3
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b) With the help of neat circuit diagram, derivation and waveform, explain the working of op-amp as a differentiator	07	L ₂	CO4
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OR

b) With the help of neat circuit diagram and derivation, explain the	07	L ₂	CO4
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working of Inverting configuration of op-amp

Q.3

Attempt any two

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|----|--|----|----------------|-----|
| a) | Explain Zener diode as voltage Regulator | 08 | L ₂ | CO1 |
| b) | Compare BJT and FET | 08 | L ₂ | CO2 |
| c) | With the help of Boolean equation, truth table and symbol explain universal gates | 08 | L ₂ | CO3 |
| d) | With the help of neat circuit diagram, derivation and waveform, explain the working of op-amp as Average amplifier | 08 | L ₂ | CO4 |

Q.4

Attempt any two

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|----|---|----|----------------|-----|
| a) | List out different types of analog communication and explain any two | 09 | L ₂ | CO5 |
| b) | What is communication? With the help of block diagram explain the working of Basic communication system | 09 | L ₂ | CO5 |
| c) | What is modulation .Explain the need of modulation | 09 | L ₂ | CO5 |

Q.5

Attempt any two

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|----|---|----|----------------|-----|
| a) | With the help of neat Block diagram, explain the working of DMM, state its advantages | 09 | L ₂ | CO6 |
| b) | With the help of neat diagram, explain the working of LVDT, state its advantages | 09 | L ₂ | CO6 |
| c) | With the help of neat block diagram, explain the working of CRO, state its applications | 09 | L ₂ | CO6 |

Q.6

Attempt any three

- | | | | | |
|----|---|----|----------------|-----|
| a) | List out differences between wireless and wired communication | 06 | L ₁ | CO5 |
| b) | Classify the Communication System | 06 | L ₁ | CO5 |
| c) | Write a short note on LM35 | 06 | L ₁ | CO6 |
| d) | Write a short note on Power supply | 06 | L ₁ | CO6 |

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