

BACHELOR OF TECHNOLOGY (C.B.C.S.) (2021-COURSE)
B. Tech. Sem - II R&AE :SUMMER- 2022
SUBJECT : ELECTRONICS ENGINEERING SYSTEMS

Day : Monday
Date : 1/8/2022

S-24125-2022

Time : 10:00 AM-01:00 PM
Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Assume suitable data if necessary.
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Q.1 Two resistors of value 4Ω and 6Ω are connected in series. A voltage equal to 24 V is applied to this circuit. Find the voltage across each resistance. [10]

OR

Q.1 Explain basic principle of operation of transformer with neat diagram. [10]

Q.2 Draw a diagram of practical and ideal voltage source and explain with V-I characteristics. [10]

OR

Q.2 Explain line and load regulation with diagram. [10]

Q.3 Explain classification of materials based on band gap energy with diagram. [10]

OR

Q.3 Explain the V-I characteristics of P-N junction diode. [10]

Q.4 With help of diagram explain the working of NPN and PNP transistor. [10]

OR

Q.4 Draw construction and drain characteristics of JFET. Explain its operation. [10]

Q.5 Explain construction and principle of operations of LED with diagram. [10]

OR

Q.5 Explain construction and working of photovoltaic cell with diagram. [10]

Q.6 What is earthing? Why it is necessary? Explain two commonly employed method for earthing. [10]

OR

Q.6 Draw diagram sodium vapour and mercury vapour lamp and explain it. [10]

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