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|  | **School of Engineering and Technology**  **Department of Electrical Electronics and Communication Engineering**  **Session: 2021-2022 (Even Sem)** |
| **Question Bank on Unit V (Transistors)** | |
| **Subject: Principles of Electrical and Electronics Engineering (EEE112)** | |

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| **Q.No.** | **Questions** | **Mapped to CO’s** | **Bloom’s Level of Learning** |
| 1. | Explain the construction and working principle of bipolar junction transistor | CO5, CO6 | K2 |
| 2. | Draw and explain the input output characteristics of BJT. | CO5, CO6 | K2 |
| 3. | Explain the construction and working principle of junction field effect transistor. | CO5, CO6 | K2 |
| 4. | Explain how electric field in a FET controls the drain current? | CO5, CO6 | K4 |
| 5. | Obtain the relation between “α” and “β” of a common emitter n-p-n BJT | CO5, CO6 | K4 |
| 6. | Identify pinch-off effect in JFET. Derive the expression for drain current of a JFET. | CO5, CO6 | K3 |
| 7. | Draw and explain the characteristics of JFET. | CO5, CO6 | K2 |
| 8. | Explain why JFET is called a “*voltage-controlled device*”? | CO5, CO6 | K2 |
| 9. | Explain how can BJT be used as a switch in electronic circuits | CO5, CO6 | K4 |
| 10. | Draw and explain the characteristics of BJT in CE configuration. | CO5, CO6 | K4 |