

Q.P. Code :16954



[Time: Three Hours]

Please check whether you have got the right question paper.

- N.B:
1. Question.No.1 is compulsory.
 2. Attempt **any three** questions out of remaining **five** questions.
 3. **Figures** to the **right** indicate **full marks**.

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| 1. | Attempt the followings. (Any Four) | 20 |
| | a) Explain the working Principle of DC Generator and derive EMF equation. | |
| | b) Explain why single phase induction Motor is not self starting. | |
| | c) Draw and explain V-I characteristics of SCR. | |
| | d) Explain electrical welding, with block diagram. | |
| | e) Explain the functions of micro controllers and their applications. | |
| 2. | a) Explain the construction and working of transformer with neat diagram. | 10 |
| | b) Explain encoders and decoders with diagram. | 10 |
| 3. | a) Draw and explain Torque-speed characteristics of 3 phase Induction Motor. | 10 |
| | b) Explain the characteristics of ideal OP- Amp (operational Amplifier) and explain any one application with suitable diagrams. | 10 |
| 4. | a) Explain the application of SCR for speed control of AC Motors. | 10 |
| | b) Explain the transformer tests to calculate the efficiency and regulation with circuit diagram. | 10 |
| 5. | a) Discuss the transmission and distribution of electric power with neat diagram. | 10 |
| | b) Explain the working of stepper motor and its industrial applications. | 10 |
| 6. | Write a short notes on the following. (Any Three) | 20 |
| | a) Applications Timers and relays. | |
| | b) Block diagram of 8085 micro processor. | |
| | c) Overload protection circuits. | |
| | d) Speed control of DC Motor | |