

B.Sc. Semester - 5 (CBCS) Examination
Oct/Nov.- 2024 (Old Course)
SOLID STATE ELECTRONICS (CORE)

Time: 2:30 Hours**Marks: 70****Instructions:**

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

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- Que.1(A) Answer the following question (any one). (07)
1. Write a note on Transformer Coupled Amplifier.
 2. Explain the Push-pull Amplifier.
- Que.1(B) Answer the following question (any one). (04)
1. Give the comparison of different type of Coupling.
 2. Write a short note on class A power amplifier.
- Que.1(C) Answer the following question (any three). (03)
1. Unit of voltage gain is
 2. Transformer coupling is used for amplification.
 3. For dc signal amplification, coupled amplifier is used.
 4. If the collector current flows for less than half cycle of the input signal, it is called class power amplifier.
 5. Class power amplifier has the low collector efficiency.
- Que.2(A) Answer the following question (any one). (07)
1. Explain Monostable Multivibrator.
 2. Write a note on Bistable Multivibrator.
- Que.2(B) Answer the following question (any one). (04)
1. Write a short note on Differentiating Circuit.
 2. Explain Biased Positive Clamper.
- Que.2(C) Answer the following question (any three). (03)
1. A switch has states.
 2. A switch that has the fastest speed of operation is switch.
 3. Astable multivibrator has stable states.
 4. Bistable multivibrator is also known as
 5. A negative clipper removes half cycle of the input signal.
- Que.3(A) Answer the following question (any one). (07)
1. Explain Regulated Power Supply.
 2. Write a note on Linear Amplifier.
- Que.3(B) Answer the following question (any one). (04)
1. Write a short note on Short Circuit Protection.
 2. Explain: Classification of ICs based on Structure.
- Que.3(C) Answer the following question (any three). (03)
1. The circuit removes the a.c. component in rectifier output.
 2. diode is used for Voltage Regulation.
 3. Full form of Op-Amp is
 4. IC is also known as
 5. ICs have poor isolation between components.

- Que.4(A) Answer the following question (any one). (07)
1. Write a note on Self-generating Inductive Transducers.
 2. Explain in detail: LVDT.
- Que.4(B) Answer the following question (any one). (04)
1. Explain Strain Gauge.
 2. Write a short note on Resistance Temperature Detector.
- Que.4(C) Answer the following question (any three). (03)
1. A transducer is one which needs an external power supply.
 2. is a device which directly converts speed into an electrical signal.
 3. Thermistor has temperature co-efficient.
 4. Thermistor is the short form for
 5. Microphone converts an acoustic energy into an energy.
- Que.5(A) Answer the following question (any one). (07)
1. Write a note on DVM.
 2. Write a note on IC-555timer.
- Que.5(B) Answer the following question (any one). (04)
1. Explain CRO with Block Diagram.
 2. Write a short note on Demultiplexer.
- Que.5(C) Answer the following question (any three). (03)
1. A is a measuring instrument which can measure voltage, current and resistance.
 2. Full form of CRO is
 3. A is a circuit with one input but many outputs.
 4. flip-flop has only one input.
 5. flip-flop can be used to build counter.
