

B.Sc. Semester - 5 (CBCS) Examination
December. -2020 (Old Course)
SOLID STATE ELECTRONICS(CORE)

Time: 1:30 Hours**Marks: 42****Instructions:**

1. Figures to the right indicate marks.
 2. There are five questions in the question paper.
 3. Answer any three of the following questions.
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1(a) Answer the following question (any one). (7)

- (1) Write a note on transformer coupled amplifier.
- (2) Explain in brief: push-pull amplifier.

1(b) Answer the following question (any one). (4)

- (1) Explain direct coupled amplifier.
- (2) Explain class A power amplifier.

1(c) Answer the following question (any three). (3)

- (1) Unit of voltage gain is
- (2) Coupling capacitor is also known as capacitor.
- (3) For extremely low frequency 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) The collector efficiency of series-fed class A amplifier is% .

2(a) Answer the following question (any one). (7)

- (1) Explain bistable multivibrator .
- (2) Write a note on positive and negative clippers.

2(b) Answer the following question (any one). (4)

- (1) Write a short note on differentiating circuit.
- (2) Explain biased positive clamper.

2(c) Answer the following question (any three). (3)

- (1) switch has very fast operating speed.
- (2) A multivibrator is an electronic circuit with feedback.
- (3) monostable multivibrator has stable states.
- (4) Bistable multivibrator is also known as
- (5) A negative clipper removes half cycle of the input signal.

3(a) Answer the following question (any one). (7)

- (1) Explain regulated power supply.
- (2) Explain classification of ICs by structure.

3(b) Answer the following question (any one). (4)

- (1) Write a short note on short circuit protection.
- (2) Explain differentiator.

3(c) Answer the following question (any three). (3)

- (1) The circuit removes the a.c. component in rectifier output.
- (2) diode is used for voltage regulation.
- (3) Full form of IC is
- (4) Draw the symbol of op-amp.
- (5) ICs have poor isolation between components.

4(a) Answer the following question (any one). (7)

- (1) Write a note on self generating inductive transducers.
- (2) Explain in detail: LVDT.

4(b) Answer the following question (any one). (4)

- (1) Explain resistive position transducer.
- (2) Write a short note on capacitive pressure transducer.

4(c) Answer the following question (any three). (3)

- (1) is device which converts energy from one form to another form.
- (2) is a device which directly converts speed into an electrical signal.
- (3) Thermistor is type transducer.
- (4) Photoconductive cell is also known as
- (5) Microphone converts an acoustic energy into an energy.

5(a) Answer the following question (any one). (7)

- (1) Write a note on DVM.
- (2) Explain R-S flip-flop.

5(b) Answer the following question (any one). (4)

- (1) Explain electronic versus electrical instruments.
- (2) Write a short note on demultiplexer.

5(c) Answer the following question (any three). (3)

- (1) The deflection type instrument is also known as instrument.
- (2) A is a measuring instrument which can measure voltage, current and resistance.
- (3) A is a circuit which has one input and number of outputs.
- (4) flip flop has only one input.
- (5) flip flop can be used to build counter.
