

B.Sc. Semester - 5 (Remedial) (CBCS) Examination**March/April-2022(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.

Q.1(A) Answer the following question (any one). (07)

- (1) Write a note on R-C coupled amplifier.
- (2) Explain in brief: classification of power amplifier.

Q.1(B) Answer the following question (any one). (04)

- (1) Give the comparison of different types of coupling.
- (2) Explain thermal runaway of power amplifier.

Q.1(C) Answer the following question (any three). (03)

- (1) coupled amplifier is widely used for voltage amplification.
- (2) coupled amplifier has poor frequency response.
- (3) For extremely low frequency signal amplification coupled amplifier is used.
- (4) The last stage of power amplifier is known as stage.
- (5) Class power amplifiers are used as tuned amplifier.

Q.2(A) Answer the following question (any one). (07)

- (1) write a note on astble multivibrators.
- (2) Write a note on positive and negative clamper.

Q.2(B) Answer the following question (any one). (04)

- (1) Write a short note on switching action of transistor.
- (2) Explain biased negative clipper.

Q.2(C) Answer the following question (any three). (03)

- (1) A circuit that can turn ON and OFF power to an electrical circuit is known as a circuit.
- (2) A multivibrator is an electronic circuit with feedback.
- (3) Astable multivibrator has stable states.
- (4) multivibrator is also known as flip-flop.
- (5) A positive clipper removes half cycle of the input signal.

Q.3(A) Answer the following question (any one). (07)

- (1) Regulated power supply.
- (2) Explain functioning of an OP-AMP as a linear amplifier.

- Q.3(B) **Answer the following question (any one).** (04)
- (1) Write a short note on ordinary d.c. power supply.
 - (2) Write advantages and disadvantages of ICs.
- Q.3(C) **Answer the following question (any three).** (03)
- (1) In an unregulated power supply, if input ac voltage increases, the output voltage
.....
 - (2) A zener diode is used as a voltage regulating device.
 - (3) Full form of IC is
 - (4) ICs have lowest cost and highest.
 - (5) is an electronic circuit that compares two input voltages.
- Q.4(A) **Answer the following question (any one).** (07)
- (1) Explain self-generating inductive transducers.
 - (2) Write a note on LVDT.
- Q.4(B) **Answer the following question (any one).** (04)
- (1) Explain piezoelectric transducers.
 - (2) Write a short note on resistance temperature detector.
- Q.4(C) **Answer the following question (any three).** (03)
- (1) A device which converts energy from one form to another form is called
 - (2) Bellow type transducer is used for measurement.
 - (3) Tachometer is a device which directly converts into an electrical signal.
 - (4) A thermocouple is a most widely sensor to measure the
 - (5) Photoemissive cell are convert light energy into energy.
- Q.5(A) **Answer the following question (any one).** (07)
- (1) Write a note on DVM.
 - (2) Explain J-K flip-flop.
- Q.5(B) **Answer the following question (any one).** (04)
- (1) Write a short note on CRO.
 - (2) Write a short note on D flip-flop.
- Q.5 (C) **Answer the following question (any three).** (03)
- (1) A deflection type instruments with a scale and movable pointer are called
instruments.
 - (2) Full form of DVM is
 - (3) A is a circuit which has many inputs and one output.
 - (4) A flip flop can be used as a device in computer.
 - (5) flip flop has only one input.
