647510 **BSCsseCC5030** **Seat No :_____**

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

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

(1) Write a note on tranformer coupled amplifier.

(2) Explain in brief: push-pull amplifier.

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

(1) Write a note on direct coupled amplifier.

(2) Explain class A power amplifier.

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

(1) Unit of voltage gain is …….

(2) …… coupled amplifier has poor frequency response.

(3) For exremely low frequency signal amplification …… coupled amplifier is used.

(4) The change of output wave shape from the input wave shape of amplifier is known as ……..

(5) If the collector current flows for less than half cycle of the input signal, it is called class …… power amplifier.

Que-2(A) Answer the *following* question (any one). (07)

(1) write a note on bistble multivibrators.

(2) Write a note on monostable multivibrators.

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

(1) Write a short note on switching action of transistor.

(2) Explain biased positive clipper.

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

(1) …… switch has very fast operating speed.

(2) A multivibrator is an electronic circuit with …… feedback.

(3) Astable multivibrator has …… stable states.

(4) Bistable multivibrator is also known as ……..

(5) A negaitive clipper removes ……. half cycle of the input signal.

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

(1) Explain regulated power supply.

(2) Explain functioning of an OP-AMP as a linear amplifier.

Que-3(B) Answer the following question (any one). (04)

(1) Write a short note on ordinary d.c. power supply.

(2) Explain differentiator.

Que-3(C) Answer the following question (any three). (03)

(1) In an unregulated power supply, if load current increase, the output votage ……

(2) A zener diode utilises ……. characteristics for voltage regulation.

(3) Full form of IC is …….

(4) ..... ICs have poor isolation between components.

(5) Full form of OP-AMP is ……..

Que-4(A) Answer the following question (any one). (07)

(1) Explain self generating inductive transducers.

(2) Write a note on strain gauge.

Que-4(B) Answer the following question (any one). (04)

(1) Explain resistive position transducer.

(2) Write a short note on capacitive pressure transducer.

Que-4(C) Answer the following question (any three). (03)

(1) …… is device which converts energy from one form to another form.

(2) Thermistor is …… type of transducer.

(3) Thermistor has …… temperature co-efficient.

(4) Photoconductive cell is also known as ……..

(5) Microphone convers an acoustic energy into an ……. energy.

Que-5(A) Answer the following question (any one). (07)

(1) Write a note on DVM.

(2) Explain R-S flip-flop.

Que-5(B) Answer the following question (any one). (04)

(1) Explain essentials of an elecronic instruments.

(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 which has one input and number of outputs.

(4) …… flip flop has only one input.

(5) ……..flip flop can be used to build counter.

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