

नोट : दोनों खण्डों से निर्देशानुसार उत्तर दीजिए। प्रश्नों के अंक उनके दाहिनी ओर अंकित हैं।

Note : Answer from both the Sections as directed. The figures in the right-hand margin indicate marks.

खण्ड / Section-A

Answer the following questions:-

1x10=10

(very short answers type questions)

- What do you mean by radioactive transitions?
- Write name of any one photo conductive device.
- Write the name of integral wred for infrared radiation in I.ED.
- What is threshold current?
- Write name of principle on which solar cell work.
- What do you mean by hetero function?
- What is slew rate?
- What is the bridge balance condition for their bridge oscillator.
- Give circuit symbol of op-amp.
- What do you mean by offset voltage?

2- Answer the following questions (short answer type questions) 2X5=10

- Write any two applications of LASER in the piled of medical science.

Or

Write name of material used in green and blue LEDS.

- What is you mean by photoconductor? Give its equivalent currant.

Or

Give energy band diagram of solar cell.

- Write difference between inverting and non inverting op-amp.

Or

What do you mean by constant cement bias level trimester.

- Define its tern open loop configuration of op-ant.

Or

Write any two application of comparator.

- Differenciale between astable and actable multi vibrations.

Or

Explain I-V charatercyll5shics of soler cell.

SECTION-B

Answer the following question (long ans. Type)

15X4=60

- What is diode LASER? Explain its construction and working and discuss about condition for population inversion.

Or

What is Emission spectra? Obtain expression for luminescent efficiency and discuss about method of imitation.

- Explain confection and working of bipolar photo teons for. Give its any two applications.

Or

Explain working principle of soler cell and describe interface this biller solar cell.

- Explain working of differential amplifier with necessary circuit diagram and obtain empresion for common mode rejection ratio.

Or

What do you mean by feedback opens? Discuss about negative feedback and its effect an closed loop gain.

- Explain working of differentiation and integrator with circuit diagram and obtain expression for their output.

Or

What do you mean by barkhiusen condition for oscillation. Explain working of wean-bridge oseillakr and obtain expression for rezones frequency.