A-2992
B. Sc. (Sem. III) Examination
March / April - 2015
Electronics : Paper - V
(Linear Power Electronics)

Time : Hours] [Total Marks : 50

Instructions :
(1) Fill up strictly the details of... signs on your answer book.

(2) Q. 1 is compulsory.
(3) Figures at extreme right indicate full marks.
(4) Draw figures/diagrams to support your answer.
(5) Assume data, if required.

1 Answer in brief : 14
(A) What is the need for regulation?
(B) Define the term rectification and ripples.
(C) Draw the output waveforms of Half Wave Rectifier and Full Wave Rectifier.
(D) Draw a labelled diagram of IC LM 7905.
(E) State the ripple factor for Half Wave Rectifier and Bridge rectifier.
(F) What are the outputs of 7812 and 7905 ICs?
(G) What do you mean by dual power supply?

2 (A) Describe the construction and working of the center tap Full Wave Rectifier and discuss its disadvantages. 8+4
(B) Which filter is better for removing ripples and why?

OR

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[Contd...
(A) Discuss Half Wave Rectifier and explain the working of C filter.
(B) Differentiate between centre tap Full Wave Rectifier and bridge type Full Wave Rectifier.

3 (A) Briefly describe the working of an emitter - follower transistor regulator.
(B) Explain the working of an adjustable 3 terminal regulator.

OR

(A) Discuss the working of the solar cell as a charging device.
(B) Differentiate between Ni-Cd cells and Lead Acid cells.

4 Write short notes on : (any two) 12
(A) Π filters
(B) Various battery charging methods
(C) Series pass regulators
(D) Rechargeable cells.