PVP 12

Code: **EC1T4**

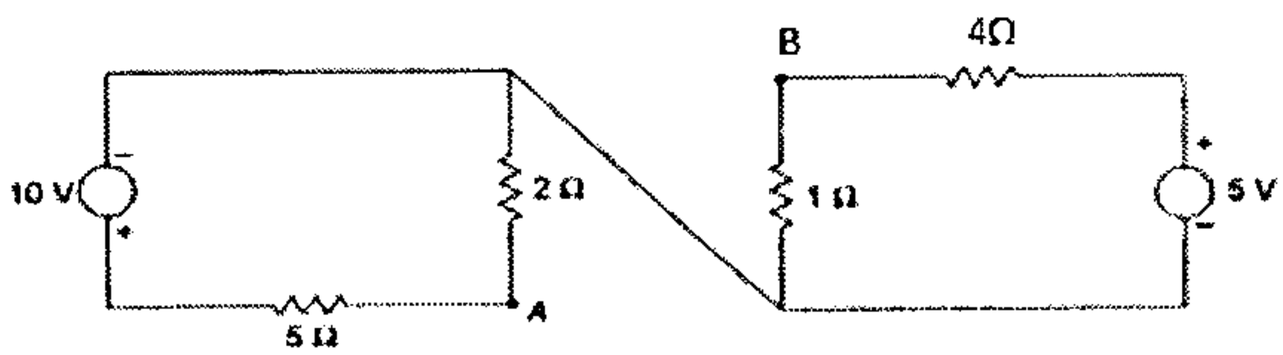
I B.Tech-I Semester – Regular Examinations-February 2014

BASIC ELECTRICAL & ELECTRONICS ENGINEERING
(FOR ELECTRONICS AND COMMUNICATION ENGINEERING)

Duration: 3 hours Marks: 5x14=70

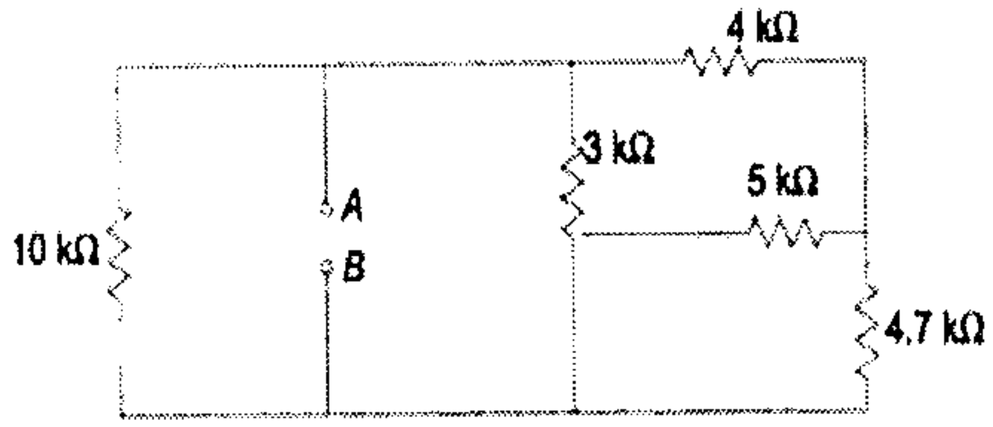
Answer any FIVE questions. All questions carry equal marks

1 a) Find voltage across AB 7 M



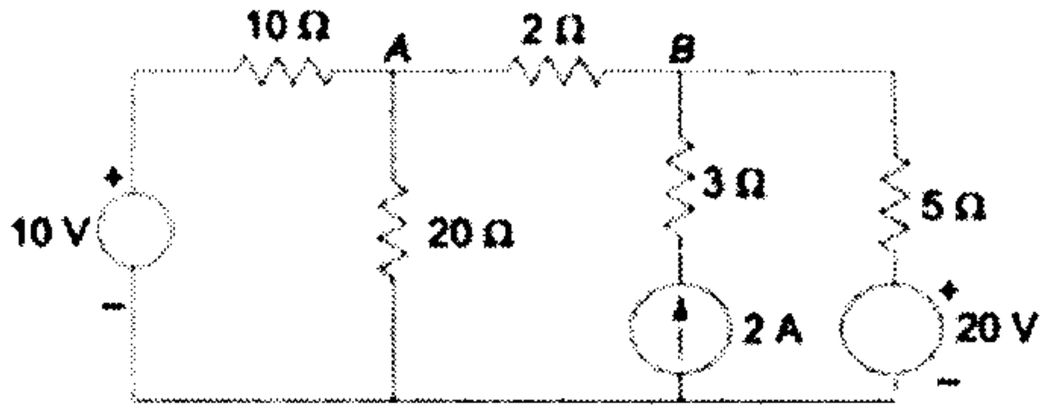
b) Write in detail with examples about conductors, semi conductors and insulators. 7 M

2 a) Find the equivalent resistance between AB terminals 7 M



b) State and explain Kirchhoff's laws with examples . 7 M

3 Find current through 2 ohm resistor using super position theorem. 14 M



4 a) State and explain the faradays laws of electromagnetic induction 7 M

b) Derive the formula for current in series and parallel magnetic circuit with an example . 7 M

5 Explain the construction and working of Led Acid cell and Nickel iron cell. List their applications. 14 M

6 a) Explain the two dimensional motion of electron . 7 M

b) Explain about perpendicular magnetic field. 7 M

7 Expalin in detail about electric and magnetic deflection systems with neat diagrams. 14 M

8 Write short notes on

a) Atomic theory. 5 M

b) Energy band structure of insulators . 5 M

c) Energy band structure of semiconductor materials . 4 M