JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

MAKEUP EXAMINATION- April-2018

B.Tech 2nd Semester

COURSE CODE: 10B11EC211   MAX. MARKS:25

COURSE NAME: BASIC ELECTRONICS DEVICES AND CIRCUITS

COURSE CREDITS: 4   MAX. TIME: 1.5 Hrs

Note: *All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means.*
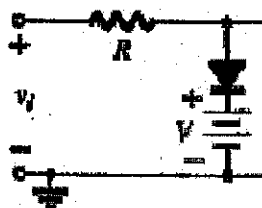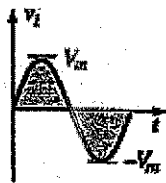
1. .

   a. Draw the circuit diagram of collector feedback bias circuit for common emitter and derive an expression for base current, collector current and V_{CE}.

   b. For the collector feedback bias circuit, considering the value of $\beta = 90$, $R_C = 4.7\ k\Omega$, $R_F = 250\ k\Omega$, $R_E = 1.2\ k\Omega$ and $V_{CC} = 10V$, determine the value of I_C and V_{CE}.
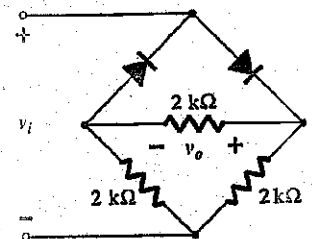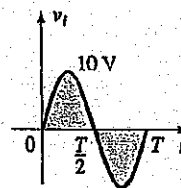
   [6+3]

2. Draw the neat and well labeled circuit diagram for full wave bridge rectifier and explain its working. Also determine the value of PIV for each diode of bridge rectifier circuit. [8]

3. Draw the output waveform and explain the working for the following circuits: [2+2+4]

   a.