Diode Clippers, Clampers & Voltage Multipliers

1. A circuit that removes positive or negative parts of waveform is called
   a. clamper  
   b. clipper  
   c. diode clamp  
   d. limiter

2. A circuit that adds positive or negative dc voltage to an input sine wave is called
   a. clamper  
   b. clipper  
   c. diode clamp  
   d. limiter

3. Voltage multipliers are circuits best used to produce
   a. low voltage and low current  
   b. low voltage and high current  
   c. high voltage and low current  
   d. high voltage and high current

4. Half wave voltage multiplier can provide any degree of voltage multiplication by cascading diodes and capacitors.
   a. only doubler  
   b. only tripler  
   c. any multiplication  
   d. none of the above

5. Consider the following statements:
   A clamper circuit
   1. adds or subtracts a dc voltage to a waveform
   2. does not change the waveform
   3. amplifies the waveform
   Which are correct?
   a. 1, 2  
   b. 1, 3  
   c. 1, 2, 3  
   d. 2, 3
6. The circuit given in the figure is:
   a. positive clipper
   b. negative clipper
   c. dual clipper
   d. either (a) or (b)

7. In the above figure D₁ turns on when
   a. Vᵢ is more positive than V₁
   b. Vᵢ is less than V₁
   c. Vᵢ is between V₁ and V₂
   d. none of the above

8. In the given Figure D₂ turns on when
   a. Vᵢ is more positive than V₁
   b. Vᵢ is less positive than V₁
   c. Vᵢ is more negative than V₂
   d. Vᵢ is less negative than V₂

9. A voltage tripler circuit uses
   a. 2 diodes and 2 capacitors
   b. 3 diodes and 3 capacitors
   c. 2 diodes and 3 capacitors
   d. 3 diodes and 2 capacitors

10. A voltage doubler circuit is fed by a voltage Vᵣ Sin \( \omega t \). The output voltage will be nearly 2 \( Vᵣ \) only if
    a. load resistance is small
    b. load resistance is large
    c. load resistance neither small nor large
    d. either (a) or (c)

Answers

1. (b)  2. (a)  3. (c)  4. (c)  
5. (a)  6. (c)  7. (a)  8. (c)  
9. (b)  10. (b)