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1. The basic principle of operation of sampling gate can be explained with :->switch
2. Gating signal used in sampling gate is generally _____ shape?>rectangular
3. Which one of the following is not the other classification of sampling gate?>tri directional sampling gate
4. Which of the following is not the other name for sampling gates?>gating circuits
5. Which sampling gate is a current switch?>shunt sampling gate
6. Which one of the following sampling gate is not existed?>pedestal sampling gate
7. One of the important application of sampling gates is :->sample & hold circuits
8. Gating signal is not required for this gate:>logic gate
9. In which sampling gate there is no direct coupling between input and output :->bidirectional sampling gate
10. The unidirectional sampling gates are constructed by using only:>diodes
11. A _____ blocking oscillator is used to obtain abrupt pulses from slowly varying input waveforms:>monostable
12. An astable blocking oscillator is used as a _____ for supplying triggering pulses:>master oscillator
13. The monostable blocking oscillator of _____ type is impracticable if predictable pulse widths are desired:>base timing
14. Monostable blocking oscillators using transistors may be of _____ type?>base timing
15. The output pulses of either polarity can be obtained using a _____ winding on the pulse transformer in a blocking oscillator:>teritary
16. Astable blocking oscillators may be of _____ type:>diode controlled
17. A blocking oscillator can be used as a _____ to discharge a capacitor rapidly:>low impedance switch
18. One of the advantage of RC controlled astable blocking oscillator?>low duty cycle operation
19. The output of the blocking oscillator may be used as a gating waveform with very small:>mark space ratio
20. _____ blocking oscillators require no triggering:>astable
21. _____ blocking oscillators require triggering :>monostable
22. Blocking oscillators generate pulses of:>high peak power
23. A blocking oscillator uses:>regenerative feedback
24. A _____ is basically a transistor circuit in which the output is coupled to the input regeneratively through a pulse transformer:>blocking oscillator
25. A blocking oscillator is a _____ circuit used to generate pulses of high peak power:>regenerative feedback circuit
26. A _____ blocking oscillator is used to obtain abrupt pulses from slowly varying input voltages:>monostable
27. A _____ blocking oscillator is used to generate a train of pulse:>astable
28. A _____ blocking oscillator is used to generate a single pulse:>monostable
29. Blocking oscillators may be of _____ type or astable type:>monostable
30. Which one of the following is not the other name of the gate signal?>detector pulse
31. Sampling gates are used in :->multiplexers
32. A sampling gate is also referred to as:>linear gate
33. How many number of sampling gate are there:>2
34. One of the disadvantages of two diode gates are :->low gain
35. Sampling gate and logic gates are _____ when they are compared with input & output:>different
36. In sampling gates, the output is _____ the input during the selected interval?>same as

37. One of the advantage of diode sampling gate is :->adjustable for zero pedestal
38. One of the disadvantage of uni directional gate is :->lack of interaction between signal source and control voltage source
39. A sampling gate is also referred to as:->transmission gate
40. The output of a _____ is an exact replica of the input signal during the selected interval and is zero otherwise:->sampling gate
41. A _____ is basically a transmission circuit which allows an input signal to pass through it during a selected interval and blocks its passage outside this interval:->sampling gate
42. The _____ is the base voltage in the output on which the input signal is superimposed:->pedestal
43. A sampling gate which can handle signals of only one polarity is called:->unidirectional gate
44. A sampling gate which can handle both positive and negative signals is called:->bidirectional gate
45. The chopper amplifier is used to amplify the signals of the order of:->milli volts
46. The chopper is often called a:->modulator
47. The advantage of bidirectional gate over unidirectional gate is :->linearity of operation
48. Phase delay results due to the finite rise time of the input pulse and finite response time of the _____ device:->relaxation device
49. A UJT sweep operates with $V_v = 3V$, $V_p = 16V$ and $\eta = 0.5$. A sinusoidal synchronizing voltage of 2v peak is applied between bases and natural frequency of sweep is 1Hz. Then find range of sweep amplitude?:->12v to 14v
50. A UJT sweep operates with a peak voltage $V_p = 15V$ and a valley voltage $V_v = 3V$. A sinusoidal synchronizing voltage of 2V peak is applied between bases. $\eta = 0.5$ (stand off ratio) natural frequency of the sweep is 1000Hz. Then find the range of synchronizing signal frequency?(one to one synchronization):->923 Hz to 1083 Hz
51. The division factor and sweep amplitude in synchronization with frequency division are function of _____:->pulse amplitude
52. A symmetrical astable multivibrator using transistor operates from 10v supply has a period of 1m sec. Triggering pulses of spacing 750 micro sec are applied to one base through a small capacitor from a high impedance source. Find the minimum triggering pulse amplitude required to achieve 1:1 synchronization?:->2.5
53. In a sinusoidal divider using regeneration and modulation proper division ratio depends only on the tuning of several _____:->passive filter circuit
54. The output pulses of the divider circuit are generally applied as an input to _____:->gating circuit
55. When synchronization is achieved if there is one cycle of the sweep generator correspondence to one cycle of the synchronizing pulses, such synchronization is known as a:->one to one synchronization
56. Generally _____ is used as a switch in sweep generator:->current controlled negative resistance
57. Phase delay results because of :->finite raise time of input trigger pulse
58. Which circuit is generally used as a divider in the process of synchronization?:->sweep circuit
59. One of the factor which causes phase delay is:->finite response time of the relaxation time devices
60. Relaxation interval is also known as:->recovery interval
61. Which of the following is used in general as a gating waveform generator?:->monostable multivibrator
62. The factors which affects _____ give raise time to phase jitter:->phase delay
63. In pulse synchronization of a sweep generator, a positive pulse applied at the base of UJT will _____:->decrease

64. In relaxation circuits, the timing interval being terminated by:->sudden discharge of a capacitor
65. The major sources of error in synchronization is:->unstable frequency of waveform generators
66. The phase delay results from the finite rise time of the input trigger pulse and _____ of relaxation time devices:->finite response time
67. The multivibrators, time base generators, blocking oscillators etc are examples of _____ :->relaxation circuits
68. Which one of the following device can't be used as relaxation oscillator for synchronization?:->BJT
69. A _____ is a circuit in which the timing interval is established through the gradual charging of a capacitor:->relaxation circuit
70. Which one of the following statement is wrong?:->counting circuits are examples of synchronization on one to one basis
71. The multivibrators time base generators, blocking oscillators etc are examples of:->relaxation circuit
72. Counting circuits are examples of which synchronization?:->synchronization on a frequency division
73. The time of occurrence of the pulse should be such that it can serve to terminate the cycle prematurely this is the condition to be satisfied for which synchronization:->pulse synchronization
74. One type of synchronization is:->synchronization on a one to one basis
75. There are _____ types of synchronizations:->2
76. Synchronization with pulse signals is possible only if:-> $T_p \leq T_0$
77. If the generator operate at different frequencies which are integral multiples of each other but arrive at some reference point at the same time means:->synchronization on a frequency division
78. If all the generators operate at exactly the same frequency and arrive at some reference point in the cycle at exactly the same instant of time means:->synchronization on a one to one basis
79. In pulse synchronization as well as synchronization with symmetrical signals, the range of synchronization increases with increasing :->synchronization signal amplitude
80. Any _____ controlled negative resistance device can be used as a relaxation circuit:->current
81. In case of synchronization with symmetrical signals, synchronization is possible for both and _____ :-> $T_p \leq T_0, T_p > T_0$
82. A divider circuit with a division factor n can be built by making:-> $T_0 > nT_p$
83. When generators with equal frequencies run in synchronism, the synchronization is said to be on a :->one- to one basis
84. When two generators produce waveforms at different frequencies, it is essential for proper synchronization that the frequency of one generator is an _____ of that of the other generator:->integral multiple
85. Two or more generators are said to be running _____ provided, all generators arrive at some reference point in the cycle simultaneously:->synchronously
86. The several factors which affects phase delay give rise to:->phase jitters
87. The time interval between the time of occurrence of the pulse which prematurely terminates the cycle and the instant of the change of state of the oscillator is termed as:->total phase delay
88. If synchronization is achieved with different frequencies ie one frequency being thrice the other then it is termed as:->synchronization with frequency division
89. _____ is the process of making two or more waveform generators arrive at some reference point in the cycle at exactly the same time:->synchronization
90. The delay between the input pulse to a divider and the output pulse is referred to as:->phase delay
91. The periodic variations in phase delay due to extraneous signals is termed as:->phase jitters
92. _____ is the modified miller circuit which requires only pulse input to get the ramp

- waveform.:->phantastion circuit
93. Which time base generators require large deflecting voltages?:->voltage
 94. Current time base generators are used in devices where _____ Deflection is used? :->electromagnetic deflection
 95. Voltage time base generators are used in devices where _____ deflection is used :->electrostatic deflection
 96. In a UJT sweep circuit, $R=100k\Omega$, $C=0.4\mu F$ & ratio of peak point voltage to supply voltage is 0.57 then the frequency of the sweep?:->29.62 Hz
 97. The basic timing elements in voltage time base generators are:->resistor & capacitor
 98. The basic timing elements in current time base generators are :->resistor & inductor
 99. Which of the following statement is true?:->when restoration time = 0, we get ramp
 100. When restoration time tends to zero, we get a waveform called:->saw tooth waveform
 101. In a UJT sweep circuit $C=0.5\mu F$, $f=29.62Hz$ and $V_p/V_{BB}=0.57$ when the value of R is:->79.98 k Ω
 102. Restoration time is also known as _____:->fly back time
 103. The time required by the sweep voltage to return to the initial value is called the _____:->restoration time
 104. The time during which the output increases linearly is called the:->sweep time
 105. In a bootstrap circuit the gain of the _____ amplifier should be unity.:->non - inverting
 106. The other name for sweep error is :->slope error
 107. Miller sweep circuit employs _____ feedback:->negative feedback
 108. The deviation of a signal from linearity can be fully described in one of the following error:->sweep error
 109. The deviation from of linearity in sweep circuit is expressed in _____ ways:->3
 110. Which one of the following is the generator of the sweep waveform:->UJT sweep circuit
 111. Sweep time T_s for a UJT sweep circuit is :-> $R_c \log_e V/V_p$
 112. _____ may be used to improve the linearity of miller and bootstrap circuits.:->compensating networks
 113. In _____ circuit, a pulse is converted into a ramp.:->phantastron
 114. If the restoration time of the sweep is zero, we get a _____:->saw-tooth waveform
 115. The time base generators are called the _____:->sweep circuits
 116. In _____ circuit an operational integrator is used to convert an input step voltage into a ramp.:->miller
 117. A bootstrap time base generator produces a _____:->positive going ramp
 118. A miller time base generator produces a _____:->negative going ramp
 119. In a miller circuit the gain A of the _____ amplifier should be infinite.:->inverting
 120. A linearly varying current waveform can be generated by applying a constant voltage across _____:->inductor
 121. A _____ oscillator is a circuit which generates non sinusoidal oscillations.:->relaxation
 122. A _____ circuit converts an input step voltage into a ramp.:->Miller
 123. Sweep speed error is given by $e_s = \frac{T_s}{RC}$:-> T_s / RC
 124. A circuit which generates non sinusoidal waveforms is called a _____:->relaxation oscillator
 125. In an exponential charging circuit, sweep speed is _____:-> V/RC
 126. A bootstrap sweep circuit employs _____:->positive feedback
 127. The _____ networks may be used to improve the linearity of miller and bootstrap circuits.:->compensating
 128. A _____ circuit converts a pulse input into a ramp.:->Phantastron
 129. The output of a time base generator is called the _____:->sweep voltage
 130. _____ currents are required for magnetic deflection applications.:->linearly varying
 131. When resistances are considered, to obtain a linear current sweep _____ voltage is to be applied

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across an inductor. \rightarrow trapezoidal

132. The ratio of the maximum difference between the actual sweep and the linear sweep which passes through the beginning and end points of the actual sweep to the amplitude of the sweep is called the \rightarrow displacement error
133. To get a saw-tooth waveform or ramp output waveform, the restoration time must be \rightarrow zero
134. The most important application of a time base generator is in \rightarrow CROs
135. A \rightarrow linear time base generator is one that provides an output waveform which exhibits a linear variation of voltage or current with time. \rightarrow linear time base generator
136. The slope error, displacement error and transmission error are related as $\rightarrow e_d = 1/8 e_s = 1/4 e_t$
137. The ratio of the difference between the input and output to the input at the end of the sweep is called the \rightarrow transmission error
138. In time base sweep restoration time is also known as \rightarrow return time
139. In a bootstrap sweep circuit, the amplifier gain A should be \rightarrow unity
140. In a miller circuit, the amplifier gain A should be \rightarrow infinite
141. There are \rightarrow 7 methods of generating a sweep. \rightarrow infinite
142. Monostable multivibrators are used to introduce \rightarrow time delay as gate width is adjustable. \rightarrow time delay
143. Monostable multivibrators are used to generate \rightarrow rectangular waveform. \rightarrow rectangular
144. Which monostable multivibrator construction is not possible? \rightarrow emitter coupled
145. Which one of the following monostable multivibrator construction is not possible? \rightarrow base coupled
146. Which multivibrator can be used as oscillator to generate wide range of audio and video frequencies? \rightarrow Astable
147. Astable multivibrators are used as a \rightarrow clock for binary logic signals. \rightarrow clock
148. Rounding in astable multivibrator can be eliminated by adding \rightarrow two collector diodes and two resistors. \rightarrow two
149. V_{BE} (cut-off) value of germanium transistor used in monostable multivibrator is \rightarrow -0.1 V
150. \rightarrow Astable multivibrator is used in the digital voltmeter and switched mode power supplies. \rightarrow Astable
151. The blocking condition for astable multivibrator arises because of \rightarrow Both Q_1 & Q_2 cutoff simultaneously
152. Rounding in astable multivibrator is eliminated by using \rightarrow collector diodes
153. Which multivibrator is also known as non-sinusoidal oscillator? \rightarrow Astable
154. If $R_1 = 20\text{ K}\Omega$, $R_2 = 10\text{ K}\Omega$ and $C_1 = C_2 = 0.01\text{ }\mu\text{F}$ then what is the frequency of the astable multivibrator? $\rightarrow 4.831\text{ KHz}$
155. If $R_1 = 20\text{ K}\Omega$, $R_2 = 10\text{ K}\Omega$ and $C_1 = C_2 = 0.01\text{ }\mu\text{F}$ then what is the duty cycle of the astable multivibrator? $\rightarrow 0.3333$
156. If $R_1 = 1\text{ K}\Omega$, $R_2 = 5\text{ K}\Omega$ and $C_1 = 0.1\text{ }\mu\text{F}$ and $C_2 = 0.03\text{ }\mu\text{F}$ then what is the period of oscillation of astable multivibrator? $\rightarrow 0.1725\text{ m sec}$
157. If the transistors used in monostable multivibrator are PNP type then the triggering signal generally chosen is \rightarrow positive pulse
158. How many triggering signals are required for monostable multivibrator to revert to its original state? \rightarrow one
159. In which multivibrator only one stable state is present? \rightarrow Monostable
160. In which multivibrator there are no stable states? \rightarrow Astable
161. Determine the value of capacitors to be used in an astable multivibrator to provide a train of pulse

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2 μsec wide at a repetition rate of 75 KHz with $R_1 = R_2 = 10 \text{ K}\Omega$:-> 289.85 pF & 1.642 nF

162. Which multivibrator is also known as voltage to time converter? :-> Monostable
163. Which triggering techniques are adopted for monostable? :-> unsymmetrical
164. The duration of the quasi-stable state in monostable multivibrator is termed as _____ :-> all
165. Which multivibrator is also known as univibrator? :-> Monostable
166. Which multivibrator is also known as relaxation oscillator? :-> Astable
167. Which multivibrator is also known as voltage to frequency converter? :-> Astable
168. What is the frequency of the output of an astable multivibrator if $R_1 = R_2 = 100 \text{ K}\Omega$ and $C_1 = C_2 = 0.1 \mu\text{F}$? :-> 72.4638 Hz
169. The modified circuit of astable multivibrator is also known as _____ :-> gated astable multivibrator
170. For unsymmetrical square wave which is generated by astable multivibrator has the period of oscillation equal to _____ :-> $0.69 (R_1 C_1 + R_2 C_2)$
171. The _____ circuit has two quasi stable states. :-> Astable
172. An astable multivibrator has $R_1 = 1 \text{ K}\Omega$, $C_1 = 0.1 \mu\text{F}$, $R_2 = 2 \text{ K}\Omega$, $C_2 = 0.2 \mu\text{F}$. The duty cycle of the output waveform is _____ :-> 0.2
173. The frequency of oscillation of an astable multivibrator with $R = 10 \text{ K}\Omega$ and $C = 0.1 \mu\text{F}$ is _____ :-> 721.5 Hz
174. Astable multivibrator requires _____ :-> no triggering
175. The time period of an astable multivibrator is _____ :-> $0.693 (R_1 C_1 + R_2 C_2)$
176. The _____ multivibrator does not require external triggering signal. :-> Astable
177. The _____ circuit has only one quasi stable state. :-> Monostable
178. Which multivibrator is used as a square wave generator? :-> Astable
179. Which multivibrator is used as pulse generator? :-> Monostable
180. In a monostable multivibrator, $R = 20 \text{ K}\Omega$, $C = 0.1 \mu\text{F}$. The gate width T will be equal to _____ :-> 1.386 ms
181. The pulse width of the monostable multivibrator is given by _____ :-> $0.693 RC$
182. Monostable multivibrator generates _____ :-> pulse waveform
183. In monostable multivibrator, the coupling elements are _____ :-> one capacitor and one resistor
184. In astable multivibrator, the coupling elements are _____ :-> both capacitors
185. Which multivibrator is also known as one shot multivibrator? :-> Monostable
186. Which multivibrator can be used as a gating circuit? :-> Monostable
187. Which multivibrator can be used as voltage to frequency converter? :-> Astable
188. Which multivibrator is used as master oscillator? :-> Astable
189. Which multivibrator is called free running circuit? :-> Astable