**DEPARTMENT OF ELECTRICAL ENGINEERING**

**Subject: Power Electronics**

**(The answer keys are at the end.)**

1. A gate bias can turn on a thyristor as well as turn it off
2. true
3. false
4. The number of leads in an SCR is
5. 2
6. 3
7. 4
8. 5
9. A RC snubber circuit is used to protect a thyristor against
10. False triggering
11. Failure to turn on
12. Switching transients
13. Failure to commutate
14. To turn off an SCR, it is necessary to reduce the current to less than
15. Trigger current
16. Holding current
17. Breakover current
18. None of the above
19. In a controlled rectifier, a free-wheeling diode is useful when the load is
20. inductive
21. capacitive
22. resistive
23. none of the above
24. A cycloconverter can be
25. step-down
26. step-up
27. step-down or step-up
28. none of the above
29. In a single phase full converter fed by a source having inductance the number of thyristors during overlap is
30. 1
31. 2
32. 3
33. 4
34. A class D chopper
35. Can operate in the 1st quadrant only
36. Can operate in the 2nd quadrant only
37. Can operate in 1st or 4th quadrant
38. Can operate in all four quadrant
39. A cycloconverter is
40. ac-dc converter
41. dc-ac converter
42. dc-dc converter
43. ac-ac converter
44. UPS is never used in
45. street lighting
46. computers
47. communication link
48. instrumentation
49. UJT triggering circuit is mostly used for Gate turn on of SCR mainly because
50. It provides sharp rising pulses
51. It is very cheap
52. It is simple to build
53. It provides sinusoidal output
54. Free-wheeling diode is useful when the load is
55. inductive
56. capacitive
57. resistive
58. none of the above
59. In a Thyristor anode current is made up of
60. only electrons
61. only holes
62. Both electrons and holes
63. None of the above
64. A TRIAC is equivalent to
65. Two thyristor in parallel
66. Two thyristor in anti-parallel
67. One thyristor and one diode
68. One thyristor and one transistor
69. The number of doped region in a SCR is
70. 2
71. 3
72. 4
73. 5
74. A single phase full-converter can operate in
75. 4 quadrants
76. 3 quadrants
77. 2 quadrants
78. 1 quadrant
79. The commutation method in inverter is
80. Line commutation
81. Forced commutation
82. Either (a) or (b)
83. None of the above.
84. A chopper converts
85. Constant dc voltage to ac and then into variable dc voltage
86. Constant dc voltage into variable dc voltage
87. ac of one frequency into ac of another frequency
88. ac to dc
89. Forced commutation is generally used in
90. controlled rectifier
91. cycloconverter
92. choppers
93. None of above
94. In dielectric heating, the thyristor circuit consists of
95. Rectifier-chopper combination
96. Controlled rectifier
97. ac regulator
98. rectifier-inverter combination

Answer keys

1. B
2. B
3. C
4. B
5. A
6. C
7. D
8. C
9. D
10. A
11. A
12. A
13. C
14. B
15. C
16. C
17. C
18. B
19. C
20. D