NDA PREMIUM MOCK TEST (GENERAL ABILITY TEST)

1. C C; Replace 'gone' with 'go'
2. A A; 'Remove 'does not'
3. A A; Replace 'were' with 'had been'
4. A A;
5. C C;
6. C C;
7. B B;
8. C C; Write 'ever since'
9. C C; Replace 'fairly' with 'rather'
10. B B; Write 'directly' in place of 'direct'
11. C C;
12. B B;
13. B B;
14. C
15. C
16. C C;
17. B B;
18. D D;
19. B B;
20. A A;
21. B B;
22. B B;
23. C C;
24. C C;
25. D D;
26. A A;
27. D D;
28. A A;
29. A A;
30. B B;
31. C C;
32. B B;
33. C C;
34. C C;
35. A A;
36. C C;
37. G
38. D D;
39. D D;
40. D D;
41. A A;
42. D D;
43. D D;
44. C C;
45. D D;
46. A
47. B B;
48. C C;
49. B B;
50. D D;
51. B B; $\left[\frac{g}{R}\right]^{1/2} = \left[\frac{M^0LT^{-2}}{M^0LT^0}\right]^{1/2} = M^0L^0T^{-1} = [\text{angular speed}]$

52. C — C; Velocity $= \frac{dx}{dt} = 18 + 18t$. It depends upon time. For t = wx, the velocity = 18 + 18 × 2 $ms^{-1} = 54\ ms^{-1}$.

53. C — C;

54. C — C;

55. C — C; Centripetal force $= MR\omega^2$. It is directly proportional to R. If R is doubled, the centripetal force is also doubled.

56. D — D; For satellite KE = – Total energy $= \frac{1}{2}$P.E. when so in this case kinetic energy is doubled and the body acquires escape velocity.

57. D — D;

58. A — A; Stefan's constant $\sigma = 5.67 \times 10^{-8}\ Wm^{-2}K^{-4}$
$E = \sigma T^4 = 5.67 \times 10^{-8} \times (1000)^4\ Jm^{-2}cm^{-2}$

59. B — B; The time period of oscillation of a mass attached to the spring is independent of gravity.

60. B — B; Density of lines of force is proportional to E.

61. B — B;

62. C — C; Energy dissipated = Power × time = 1000 W × 1h = 1 k W h.

63. A — A; Energy stored in an inductor $= \frac{1}{2}LI^2 = \frac{1}{2} \times 50 \times 10^{-3} \times (4)^2 = 0.4J$.

64. C — C;

65. (c) Light year is the unit of distance. It used for expressing astronomical distances.

66. B — B; Forces are mutually perpendicular, with resultant nearly 36 N.

67. D — D;

68. D — D; Work energy theorem is always applicable.

69. (d)

70. C — C; Radius of the earth $\cong 6400$ km. Distance of geostationary satellite $\cong 42000$ km.

71. B — B;

72. B — B;

73. B — B; $C_3 = \frac{C_1C_2}{C_1 + C_2}$

74. A — A; For angle of incidence more than 30°, total internal reflection will occur.

75. A — A; Refer to explanation for Q. 3. At far away point $B = \frac{\mu_0}{4\pi}\frac{2\pi IR^2}{x^3}$. Hence, when R is doubled, B becomes four times.

76. B — B; $Q = \frac{V^2}{R}t$. When V decreases, Q also decreases.

77. A — A; In such a case impedance = resistance.

78. C — C;

79. D — D; $\xi = \frac{LdI}{dt}$. Here $\xi = 2V$, dI = 1 A and dt = 10^{-3} s. Hence L = 2 m H.

80. C — C;

81. A — A;

82. C C;
83. A A;
84. C C;
85. C C;
86. D D;
87. A A;
88. C C;
89. B B;
90. A A;
91. C C;
92. B B;
93. A A;
94. B B;
95. B B;
96. A A;
97. A A;
98. A A;
99. B B;
100. B B;
101. A A;
102. C C;
103. B
104. B B;
105. D D;
106. B
107. A A;
108. C
109. B B;
110. B
111. D
112. A A;
113. D D;
114. B
115. D D;
116. C
117. B B;
118. D
119. C
120. A
121. A
122. A
123. B **B;**
124. D
125. C
126. D **D;**
127. A **A;**
128. A
129. A **A;**
130. D D;
131. B
132. C
133. A

134. B
135. A
136. D
137. C
138. D
139. A
140. C
141. B
142. A
143. C
144. B
145. C
146. B
147. A
148. A
149. A
150. D