**LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (AUTONOMOUS)**

**Differential equations and Vector calculus**

**UNIT- 1& 2 Quiz questions**

**I B.Tech. II SEM**

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| Q. No. | Question | Answer |
| 1 | The order and degree of the differential equation are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 1 and 2 |
| 2 | The I.F. of is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 3 | The differential equation is\_\_\_\_\_\_  a) Linear equation b) Bernoulli equation c) Exact equation d) Homogeneous equation | b |
| 4 | The necessary and sufficient condition for the differential equation to be  exact is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 5 | The integrating factor of the differential equation of the typeis\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 6 | An I.F. of the non-exact differential equation is\_\_\_\_\_\_  a) b) c) d) | d |
| 7 | How can you change a non exact equation into an exact equation?  a) By multiplying I.F. b) By dividing I.F. c) By subtracting I.F. d) By adding I.F. | a |
| 8 | The I.F. of a Linear differential equation is.  a) b)c) d) | b |
| 9 | An I.F. of the differential equation is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 10 | The number of arbitrary constants in a general solution of a differential equation of order n is.  a) b) c) d) | a |
| 11 | I.F. of a homogeneous non exact differential equation is\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 12 | Mathematical formulation of Newton’s law of cooling\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 13 | The order and degree of the differential equation  a) 1 & 2 b) 3 & 1 c) 1 & 3 d) 3 & 3 | b |
| 14 | Mathematical formulation of Law of natural decay  a)  b)  c)  d) | a |
| 15 | The general solution of the differential equation is  a)  b)  c)  d) | a |
| 16 | The general solution of is  a)  b)  c)  d) | b |
| 17 | P.I. of the equationis  a)  b)  c)  d) | b |
| 18 | The complete solution of the equation of the form is.  a) b) c) d) | c |
| 19 | The two independent solutions of the equation are\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 20 | The P.I. of the differential equation is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 21 | The two linearly independent solutions of is.  a) b) c) d) | b |
| 22 | P.I of the equation is\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | -1 |
| 23 | P.I. of the equation is.  a) b) c) d) | c |
| 24 | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |  |
| 25 | The CF of the differential equation is.  a) b) c) d) | b |
| 26 | The C.F. of the equation  a) b)  c) d) | a |
| 27 | The P.I of the equation |  |
| 28 | The general solution of is.  a) b) c) d) | c |
| 29 | The value of  a) b) c)  d) | b |
| 30 | The C.F of is  a)  b)  c)  d) | a |