**SCHOOL OF ENGINEERING AND TECHNOLOGY**

D.C. COURT JUNCTION, DIMAPUR

**END TERM EXAMINATION JUNE 2017**

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| **Course Code:** | G1T04 | **Semester:** | 1st  | **TotalMarks** | 60 |
| **Course Name:** | Electrical Engineering (BP)  | **Time:** | 3hrs. |

**Answer the following questions.**

1. **Choose the correct answer. (10X1=10)**
2. An ammeter is…………….instrument.
3. an indicating c) an integrating
4. a recording d) none of the above
5. Dynamometer type instrument can be used for……
6. a.c. work only c) for both a.c. and d.c. work
7. d.c. work only d) none of the above
8. The electric current is due to the flow of
9. positive charges only
10. negative charges only
11. both positive and negative charges
12. neutral particles only
13. In a.c. system, we generate sine waveform because…
14. it can be easily drawn
15. it produce least disturbance in electrical circuit
16. it is nature’s standard
17. other waveform cannot be produced easily
18. For the same rating, the size of a 3-phase motor will be …….. 1-phase motor
19. less than that of c)more than that of
20. same as that of d)none of the above
21. The basic function of transformer is to change
22. the level of voltage c) the power factor
23. the power level d) the frequency
24. What is the primary principle of a fuse?
25. open the circuit
26. protect the appliance
27. protect the line
28. prevent excess current from flowing into the line
29. Which type of system is generally adopted for the generation and transmission of electrical power
30. 32 phase 4 wire c) 2 phase 3 wire
31. 3 phase 3 wire d) none of the above
32. A vector quantity has
33. only magnitude c) only direction
34. both (a) and (b) d) none of the above
35. Accuracy of a measuring instrument indicates the
36. closeness of the output reading to the true value
37. ratio of output value to the input value
38. change in output with each change in input
39. degree of freedom from random errors
40. **I. Answer any four questions. (4x3=12)**
41. State KVL and KCL.
42. Write a short note on switch gear and protection.
43. What are the advantages and disadvantages of AC as compare to DC.
44. Define the following terms

Skin Effect; Corona; Ohm’s Law

1. A resistance of a material *2m* long and area of cross-section *2* $m^{2}$ has a resistance of 1.6 x $10^{-8}Ω$ . Determine its resistivity.

**II.** **Answer any two questions. (2x4=8)**

1. Explain the types of losses in DC machine.
2. Explain in brief the types of electrical measuring instrument according to their function.
3. Explain the operation of auto transformer.
4. **Answer any five questions. (5x6=30)**
5. Explain the construction and working of a transformer.
6. Explain the different types of sub-station in a power system.
7. With a neat sketch explain the working and construction of any one of the following electrical measuring instruments
8. PMMC (b) Moving iron instrument
9. Discuss in detail generation, transmission and distribution of the power system.
10. Explain any one of the wattmeter methods for power measurement in three phase circuit.
11. Explain three phase Induction motor.
12. Find the voltage drop across each resistor for the given circuit. 

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