**GATITU MIXED SECONDARY SCHOOL**

**PHYSICS FORM 3 END OF TERM 2 2015**

1. State ohm’s law. 1mk
2. Define electric current. 1mk
3. Define electric field. 1mk
4. Define capacitance and state its si unit. 2mks
5. State the one advantage and disadvantage of connecting cells in series. 2mks
6. State and explain three factors that affect the capacitance of a parallel plate capacitor. 3mks
7. In terms of electrons and electrical conductivity distinguish between conductors and insulators. 2mks
8. Three capacitors of capacitance 2, 5 and 8 are connected in series. Calculate their effective capacitance. 3mks
9. The figure below shows three resistors of valves 3vl, 4 vl and 5 vl connected in parallel to a 12v d.c supply
10. State three uses of capacitors. 3mks
11. What instrument is used to measure,
12. Electric current. How is it connected in a circuit? 2mks
13. Potential difference. How is it connected in a circuit? 2mks
14. A capacitor has a capacitance of 2.6. When fully charged and connected to a voltmeter, the p.d across its plates is 4v. What is the charge stored in the capacitor when fully charged? 3mks
15. What is meant by point action? 3mks
16. The figure below shows a circuit with a combination of resistors is parallel and series connected to a 12 v battery.
17. Explain why it is dangerous to take shelter under a tall tree during a thunderstorm. 2mks
18. 1800 coulombs of charge are passing through a point in an electric circuit in 15 minutes. Determine the amount of electric current in the circuit. 3mks
19. State two properties of electric lines of force. 2mks