

## **Question for Near surface geophysics (Theory)/4<sup>th</sup> Year/ 1<sup>st</sup> Semester**

Q1/ What is the Resistivity?

Q2/ What is the aim of the electrical resistivity method?

Q3/ What is the current?

Q4/ Define the Ohm's law? and write its formula.

Q5/ What are the units of current, voltage and resistance?

Q6/ Draw the Resistance formula triangle/

Q7/ What is the difference between resistivity and resistance?

Q8/ What is the unit of resistivity?

Q9/ What are the types of resistors?

Q10/ Write the law of equivalent Resistance for both vertical and horizontal series?

Q11/ What is the Archie's law?

Q12/ How is the relation between porosity and degree of saturation?

Q13/ Explain the general rules of Thumb for resistivity?

Q14/ State the Archie's law and define the parameters.

Q15/ Draw or explain the steps of Electrical Resistivity Method survey.

Q16/ What is the basic principle for electrical resistivity survey? and draw the schematic diagram for it.

Q17/ What is the geometric factor?

Q18/ Write the common types of resistivity survey arrays.

Q19/ Draw a diagram for winner array and its resistivity law.

Q20/ Draw a diagram for schlumberger array and its resistivity law.

Q21/ What is the difference between winner and schlumberger array?

Q22/ What are the main equipments for electrical resistivity survey?

Q23/ What is the qualitative interpretation?

Q24/ What is the main type of qualitative interpretation in resistivity survey?

Q25/ What is the field curve types?