



KOMBOLCHA INSTITUTE OF TECHNOLOGY

WATER RESOURCES AND IRRIGATION ENGINEERING DEPARTMENT

Ground Water Modelling Assignment

TARGET GROUP: 5TH YEAR

Instructors: Gurmu D. & Tesfa Y.

MAXIMUM MARK: 50%

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&

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Name _____ Id.No. _____ Sec. _____

Part I : Lab .test Video(2.5% each)

Questions

1. Write one material used to measure water level using electric tape?

Answer: _____

2. Barometric affects water level and it measure pressure either _____ or _____ or _____ ?

Answer: _____ or _____ or _____

Part II : Questions For Power Point Unit One to Unit Five (2.5% each)

3. The saturated zone of subsurface is called _____?

Answer: _____

4. The unsaturated zone of subsurface consists of _____?

Answer: _____, _____ and _____

5. The deep aquifers and oil bearing reservoirs consists of _____?

Answer: _____, _____, _____ and _____

6. Which aquifer properties can transmit water to layers above and below _____?

Answer: _____

7. Which aquifer type is open to atmosphere?

Answer: _____

8. What is the importance of ground water for civil and environmental applications?

Answer: _____

9. Write Aquifer types based on geology?

Answer: _____ and _____; _____, _____,

10. Write three pore-size classification?

Answer: _____, _____ and _____

11. Why velocity heads are neglected in darcy's law ?

Answer: _____

12. Write 3 types of velocities in the porous media?

Answer: _____, _____ & _____

13. Darcy's law is applicable when the flow in the porous media is _____?

Answer: _____

14. Three Ways to obtain estimates of hydraulic conductivity (K) are?

Answer: _____, _____ & _____

15. In laboratory test Hydraulic Conductivity determined using a _____?

Answer: _____

16. Stable water level measurements are referred to as _____?

Answer: _____

17. Water level in the well and the aquifer are the same _____ aquifer?

Answer: _____

18. Rate of change of the hydraulic head w.r.t. to distance is _____?

Answer: _____

19. If hydraulic heads at well-1 is 50m and at well-2 is 20m and the distance between the two wells along x-axis is 60m .Find hydraulic gradient ?

Answer: $i =$ _____

20. Steady-state conditions implies Net accumulation in the unconfined aquifer is _____?

Answer: _____