

**SELECTION FOR THE POST OF JUNION ENGINEER/WORKS IN PAY BAND Rs. 9300-34800 WTH
G.P. Rs. 4200/- AGAINST 25% PRQ – Engineering Department**

PAPER – ENGLISH

1. Read the following passage and answer the questions given below: (5 X10 = 50 marks)

As Rivers in Southern region are non perennial, we fully depend on rainfall for improving ground water level as sub surface resources. For the last two decades due to change in global warming there was a failure in rainfall and thereby ground water level got abnormally come down. In urban areas on account of setting up of more industries/IT sectors, the usage of water is highly increased and the available resources are not meeting out the high demand of water. This results in digging more number of individual tube wells/bore wells which leads to lowering of ground water table and drying of bore wells.

To improve Bore well sources, that are further drilled to greater depth and thereby ground water table is still lowered. On the other hand more cultivating lands are being plotted for housing and commercial purposes, and open areas are paved and neglected to leave space on surface, for percolation of rain water into sub surfaces. This results into reduction of huge quantity of underground water.

Some of the methods for improving under ground water level are planting of trees on road side, restriction of changing the cultivating lands into plots/real estate, physical installation of Rain water harvesting, educate the public in the need and improvement of ground water level, etc.

1. What is the resource depended in Southern Region for improving the ground water level?
2. Why water table has come down in the last two decades?
3. What is the reason for digging more number of individual tube wells/bore wells?
4. What are the causes for reduction in underground water?
5. Write any two methods to improve underground water level.

2. Read the following passage and answer the questions given below: (5 X 10 = 50 marks)

Reinforced cement concrete is the material of construction used today alongwith steel construction. In spite of its wide-spread use, the lacuna is the requirement of waterproofing and repairs after every few years has been persisting. Due to this drawback of reinforced cement concrete, crores of rupees are spent to maintain its sustainability. This cannot be removed since reinforced cement concrete is heterogeneous material and the basic design is a cracked section. Cracks are expected to remain all the time with reason to open more and reach the reinforcement. With the advent of Ferrocement Technology construction, these two

lacunae have been eliminated. Ferrocement is a durable, waterproof, no repairs, crack resistance material. At the same time ferrocement is better earthquake resistant and wind resistant and resistant to all disasters. Ferrocement requires much less quantity of cement and steel giving better performance thus environment friendly. Therefore ferrocement is a multi-sustainable material with cost benefit as well as saving of lives against earthquake with high Richter scale of 8 and perhaps above. Ferrocement shall contribute to savings of crores of Rupees.

1. What is the drawback of RCC?
2. Why the drawback of RCC cannot be removed?
3. What are the advantages of Ferrocement.
4. Is ferrocement earthquake resistant, if so upto what scale.
5. When compared to RCC, ferrocement is cost saving or not?