Program: BE CIVIL Engineering

Curriculum Scheme: Revised 2012

Examination: Fourth Year Semester VII

Course Code: CEC 703 and Course Name: Irrigation Engineering

Time: 1 hour Max. Marks: 50

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Note to the students:- All the Questions are compulsory and carry equal marks .

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| Q1.  | An irrigation project is classified as a major project, when the culturable command involved in the project, is more than: |
| Option A: |  2,000 hectares  |
| Option B: |  5,000 hectares |
| Option C: |  10,000 hectares  |
| Option D:  |  20,000 hectares |
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| Q2. | Irrigation from wells is an example of: |
| Option A: |  Groundwater irrigation |
| Option B: |  Reservoir irrigation |
| Option C: |  Tank irrigation |
| Option D: |  Lift irrigation |
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| Q3. | In which type of irrigation method the entire land is not wetted? |
| Option A: |  Furrow Method |
| Option B: |  Free Flooding |
| Option C: |  Contour Farming |
| Option D: |  Basin Flooding |
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| Q4. | The maximum irrigation requirement of Rice crop is exhibited by its: |
| Option A: |  maximum delta value  |
| Option B: |  maximum duty value  |
| Option C: |  minimum duty value  |
| Option D: |  minimum delta value |
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| Q5. | The crop, out of the following, which is not a cash crop, is-: |
| Option A: |  Jute  |
| Option B: |  Tea |
| Option C: |  Rice  |
| Option D:  |  Sugarcane. |
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| Q6. | The optimum kor water depth for a Kharif crop is 19 cm with an allowed kor water period of 3 weeks, the outlet discharge factor for this crop will be: |
| Option A: |  955 ha/cumec  |
| Option B: |  782 ha/cumec |
| Option C: |  860 ha/cumec  |
| Option D:  |  1.364 ha/cumec |
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| Q7.  | If the intensity of rainfall is more than the infiltration capacity of soil, then the infiltration rate will be |
| Option A: |  equal to rate of rainfall |
| Option B: |  equal to infiltration capacity |
| Option C: |  more than rate of rainfall |
| Option D:  |  more than infiltration capacity |
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| Q8.  | The unit hydrograph of a specified duration can be used to evaluate the hydrograph of storms of |
| Option A: |  same duration only |
| Option B: |  same and shorter duration |
| Option C: |  same and longer duration |
| Option D:  |  any duration |
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| Q9. | The respective storm totals at three surrounding stations A, B and C are 110, 90 and 70 mm. If the normal annual precipitation amounts at stations X, A, B and C are respectively 1000, 1100, 1200 and 1250 mm, the estimated storm precipitation at X is |
| Option A: |       75mm |
| Option B: |  77mm |
| Option C: |        79mm |
| Option D:  |       81mm |
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| Q10.  | The falling limb in hydrograph shows:  |
| Option A: |  how long the rain water takes to get into the river |
| Option B: |  how quickly the rain water leaves the river |
| Option C: |  how quickly the rain water enters the river |
| Option D:  |  how much precipitation there has been |
|  |  |
| Q11.  | Field capacity of a ground aquifer equals \_\_\_\_\_\_\_\_\_ |
| Option A: |  specific yield |
| Option B: |  100 – specific yield |
| Option C: |  100/ specific yield |
| Option D:  |  specific yield-100 |
|  |  |
| Q12.  | A perched aquifer is found within \_\_\_\_\_\_\_\_\_\_\_\_ |
| Option A: |  aquiclude |
| Option B: |  confined aquifer |
| Option C: |  unconfined aquifer |
| Option D: |  both confined and unconfined aquifer |
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| Q13. | Vadose water lies in the zone of |
| Option A: |  Aeration |
| Option B: |  Saturation |
| Option C: |  Gravitation |
| Option D:  |  Capillary |
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| Q14.  | Which storage of reservoir depends upon the geological conditions of the river banks? |
| Option A: |  Surcharge Storage |
| Option B: |  Valley Storage |
| Option C: |  Useful Storage |
| Option D:  |  Dead Storage |
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| Q15. | Silting in reservoir can be reduced by |
| Option A: |  Allowing run-off from easily erodible catchment area  |
| Option B: |  Deforestation over the catchment area  |
| Option C: |  Excluding run-off from easily erodible catchment area |
| Option D:  |  Improper site selection |
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| Q16.  | An elementary triangular concrete· gravity dam, supporting 60 m height of reservoir water and full uplift, should have a minimum base width equal to: |
| Option A: |  36 m |
| Option B: |  39 m |
| Option C: |  51 m  |
| Option D:  |  61 m |
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| Q17. | In an arch dam, the 'extrados curves' refer to the arch rings corresponding to the: |
| Option A: |  upstream face of the dam |
| Option B: |  downstream face of the dam |
| Option C: |  upsteam of the axis of dam |
| Option D: |  downstream of the axis of the dam |
|  |  |
| Q18. | Earthen dams are: |
| Option A: |  rigid dams |
| Option B: |  non rigid dams |
| Option C: |  overflow dams |
| Option D:  |  diversion dams. |
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| Q19.  | During the construction of an earthen dam by hydraulic fill method, development of pore pressures become important in the:  |
| Option A: |  central impervious core |
| Option B: |  pervious outer shell |
| Option C: |  central core & outer shell |
| Option D:  |  central pervious shell |
|  |  |
| Q20. | The base width of a rock fill dam, in comparison to that of an earthen dam, is : |
| Option A: |  much larger |
| Option B: |  much smaller |
| Option C: |  sometimes larger sometimes smaller  |
| Option D: |  almost equal |
|  |  |
| Q21. | A sloping apron is provided partly above the river bed and partly below the river bed in the case when |
| Option A: |  TWC coincides with the JHC at all discharges |
| Option B: |  TWC lies above the JHC at all discharges |
| Option C: |  TWC lies below the JHC at all discharges |
| Option D:  |  TWC lies above the JHC at low discharges and below the JHC at high discharges |
|  |  |
| Q22.  | A land is said to be water-logged, when: |
| Option A: |  the land is necessarily submerged under standing water |
| Option B: |  there is a flowing water over the land |
| Option C: |  the pH value of the soil becomes as high as 8.5 |
| Option D:  |  the soil pores in the root zone get saturated with water, either by the actual water table or by its capillary fringe |
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| Q23. | Cross-drainage work is called a siphon, when it carries the canal water:  |
| Option A: |  below the drainage under pressure |
| Option B: |  below the drainage at atmospheric pressure |
| Option C: |  above the drainage at atmospheric pressure |
| Option D:  |  above the drainage under pressure |
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| Q24.  | The canal, which can irrigate only on one side, is a |
| Option A: |  watershed canal |
| Option B: |  contour canal |
| Option C: |  Side sloppe canal |
| Option D:  |  power canal |
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| Q25. | Which of these canals draws water from rivers whenever there is high stage in the river? |
| Option A: |  Perennial canal |
| Option B: |  Inundation canal |
| Option C: |  Watershed canal |
| Option D:  |  Distributary canal |