Total No. of Questions : 4]

SEAT No. :

PB248

[Total No. of Pages : 2

[6270]-36

B.E. (Civil Engineering) (Insem)
DAMS AND HYDRAULICS STRUCTURES
(2019 Pattern) (Semester - VIII) (401011)

Time : 1 Hour] *[Max. Marks : 30*

Instructions to the candidates:

1) ***Solve Q.1 or Q.2, Q.3 or Q.4.***
2) ***Neat sketches/diagrams must be drawn wherever necessary***
3) ***Figures to the right indicate full marks for the sub-questions.***
4) ***Assume suitable data if necessary and state them in your answer clearly.***
5) ***Use non-programmable pocket size electronic calculator is allowed.***

Q1) a) Explain the terms upstream side, downstream side, tailwater, spillway & gallery of gravity dam. **[5]**

b) State various objectives of dam safety and instrumentation. **[5]**

c) State the classification of dam based on purpose & explain in details anyone. **[5]**

OR

Q2) a) Explain with sketches the instrumentation required for monitoring uplift pressure in gravity dam. **[5]**

b) State the classification of arch dam and explain anyone. **[5]**

c) Explain with sketch "Piezometer" used in gravity dam safety. **[5]**

Q3) a) Explain in detail seismic forces acts on gravity dam with proper sketch. **[5]**

b) State and explain various keys provided in gravity dam. **[5]**

c) State middle third rule for dam structure. **[5]**

OR

P.T.O.

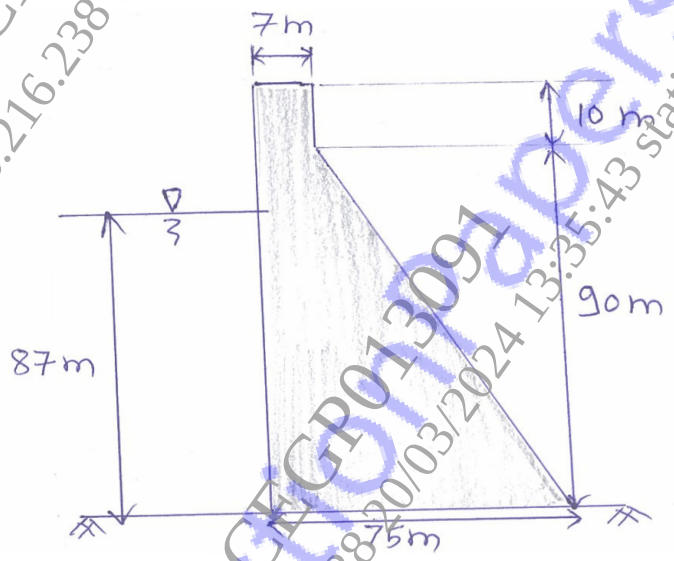
Q4) a) Explain in details galleries in a gravity dam with respect to location and function. **[5]**

b) Describe procedure for roller compacted concrete. **[5]**

c) As shown in fig.1 profile of gravity dam, check the safety of dam with respect to sliding, where as

unit weight of construction material = 24 KN/m^3

Coefficient of friction = 0.75 **[5]**



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