## B.Tech 8$^{th}$ Semester Mid-Term Examination, 2018

## RIVER HYDRAULICS AND SEDIMENT TRANSPORT

**Subject Code: 011x35**

**Time: 2 hours**                                    **Full Marks: 20**

**Instructions:**

**(i)** **Attempt any four questions.**

**(ii)** **Question No. 1 is compulsory.**

**1.** Chose the correct option for the following

**(a)** Sinuosity of the river is

(i) $\dfrac{\text{Length of stream channel}}{\text{Length of straight line distance}}$

(ii) $\dfrac{\text{Length of straight line distance}}{\text{Length of stream channel}}$

(iii) $\dfrac{\text{Width of straight line distance}}{\text{Length of stream channel}}$

(iv) None of the above

**(b)** Aggrading river are

(i) Silting rivers

(ii) Scouring rivers

(iii) Rivers in regime

(iv) Meandering rivers

**(c)** The unit of chezy's coefficient C is

(i) $\sqrt{m/s}$

(ii) m/s

(iii) m

(iv) None of the above

**(d)** A completely straight channel will have a sinuosity value is

(i) Less than 1

(ii) 1

(iii) More than 1

(iv) Zero

**(e)** Guide banks are made for

    (i)      Confining the river to a reasonable width

    (ii)     For diverting the river towards one bank

    (iii)    For attracting the river towards one bank

    (iv)    None of the above

**2.** What are the various stages of a river? Give a brief description of each stage.

<div align="center">**OR**</div>

**3.** Define the following terms of the river:

    a) Meander length

    b) Meander width

    c) Sinuosity

**4.** What is meandering? Explain basic factors controlling process of meandering.

<div align="center">**OR**</div>

**5.** Give a brief explanation of the aggrading and degrading type of river with a diagram.

**6.** Write done the use of river training work and give a classification of river training works.

<div align="center">OR</div>

**7.** Write down types of training works and explain anyone with a diagram.

<div align="center">**BEST OF LUCK**</div>