Reg. No.:						

## Question Paper Code: X11201

## B.E./B.Tech. DEGREE EXAMINATIONS, NOVEMBER/DECEMBER 2020

First Semester

Civil Engineering

CY 8151 – ENGINEERING CHEMISTRY

(Common to all Branches (Except Marine Engineering)) (Regulations 2017)

Time: Three Hours

Maximum: 100 Marks

## Answer ALL questions

PART - A

 $(10\times2=20 \text{ Marks})$ 

- 1. Distinguish between sludge and scale with an example.
- 2. What is calgon conditioning?
- 3. Write any two difference between physical and chemical adsorption.
- 4. What is meant by catalytic poisoning?
- 5. Define the term alloy and its significance with an example.
- 6. What is meant by eutectic point?
- 7. Write the classification of fuels with an example.
- 8. Define the term spontaneous ignition temperature with an example.
- 9. Mention any two examples for secondary cells.
- 10. What are fast breeder reactors?

PART - B

 $(5\times16=80 \text{ Marks})$ 

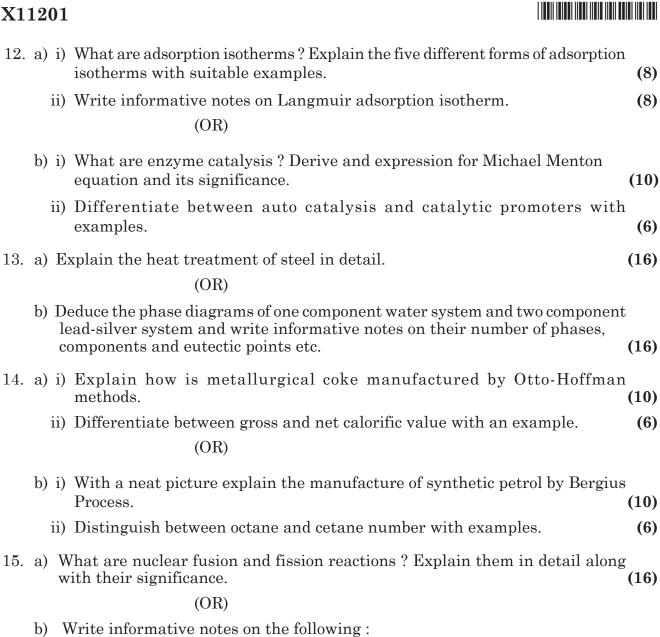
(16)

11. a) What are external treatments? With a neat diagram explain the desalination of water by ion-exchange and reverse osmosis processes. (16)

(OR)

b) Define hardness of water and explain the experimental determination of hardness of water by EDTA method.

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i) Lithium ion battery and its working mechanism with a neat diagram.

ii) H<sub>2</sub>O<sub>2</sub> fuel cell and its working mechanism with a neat diagram.

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