Author : Jayesh Jaiswal; Atharva Gawas.

Title : Super23

Git-Hub Links :

https://github.com/Jayesh-2003

https://github.com/ATHARVA-GAWAS

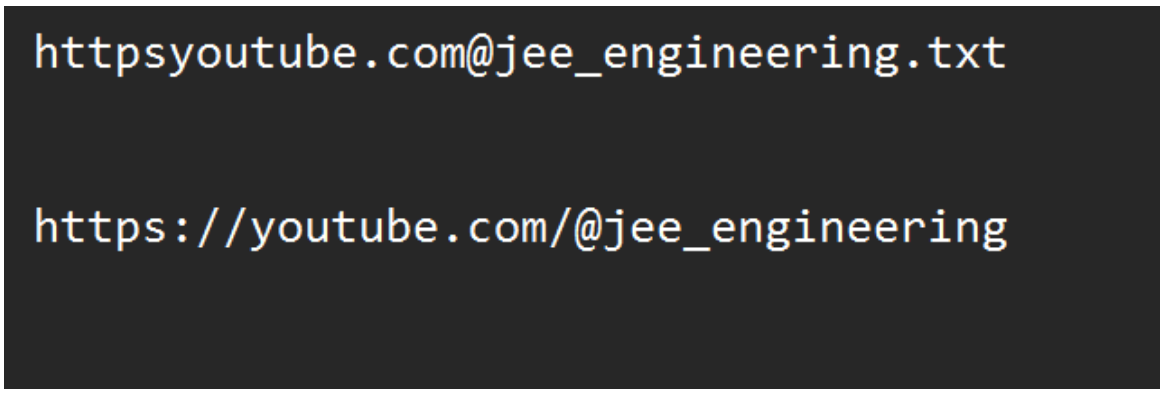
Category : OSINT

Description : The question is all about surfing the internet

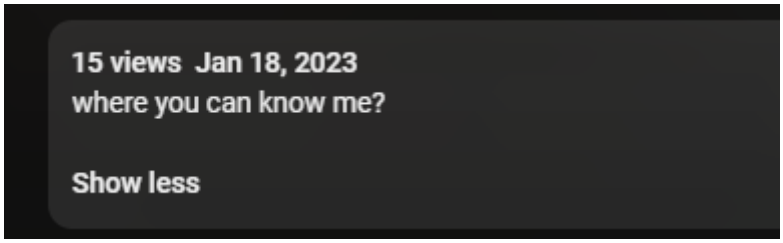
Flag : vishwaCTF{11T_9UW4HAT1_2023_94655}

Writeup

1. Look at the title of the given file, it looks similar to a youtube video link, convert the title into suitable link format.



2. Open the only video present on the channel and look for its description.



3. There is a hint, “where you can know about me”. It implies that we must check the “about” section of the channel.

4. The about section contains the following:

Description

People think iits are the best institutions of india, they conduct an entrance test which is one of the toughest exams cracking it requires a lot of persistence and suicides ,you can find some hardworking people on the twitter handle of the iit which is conducting the jee adv this year, must check for their latest tweet update about brochure of jee advance
(Tweets are not serious, Quote tweets are serious)

5)From the given hint, we need to check that which IIT is conducting JEE- Advanced this year, it is IIT Guwahati, now as per instructions, we visit their twitter handle and check for their tweet about JEE Advanced 2023 brouchure.

6. It is mentioned in the hints that quote tweets are to be checked.

7. Check for the quote tweet by “sakura69iit”, there is a hint given that “check for my insta handle”.

8. Search for his name on instagram as sakura69iit

7:48:59

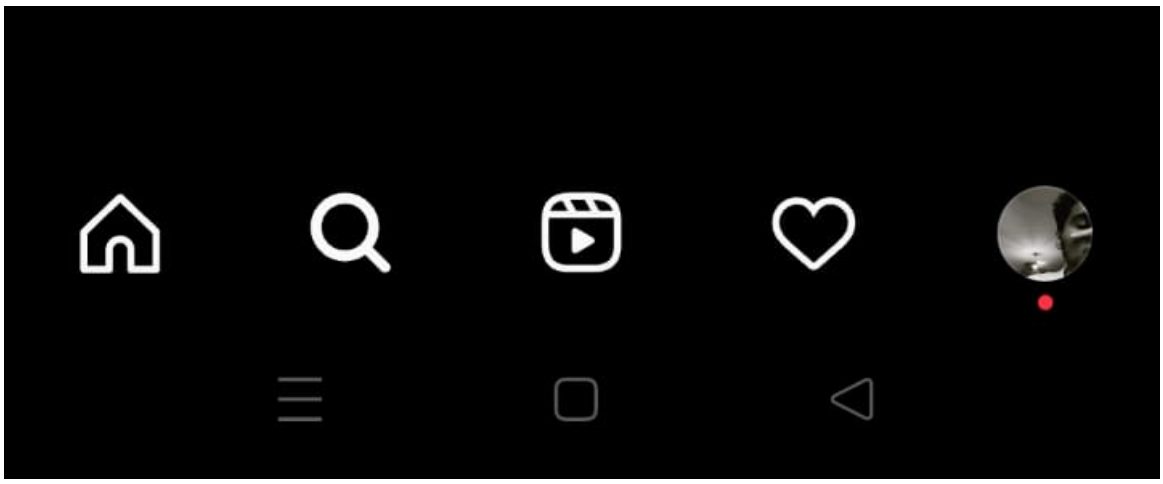
Posts

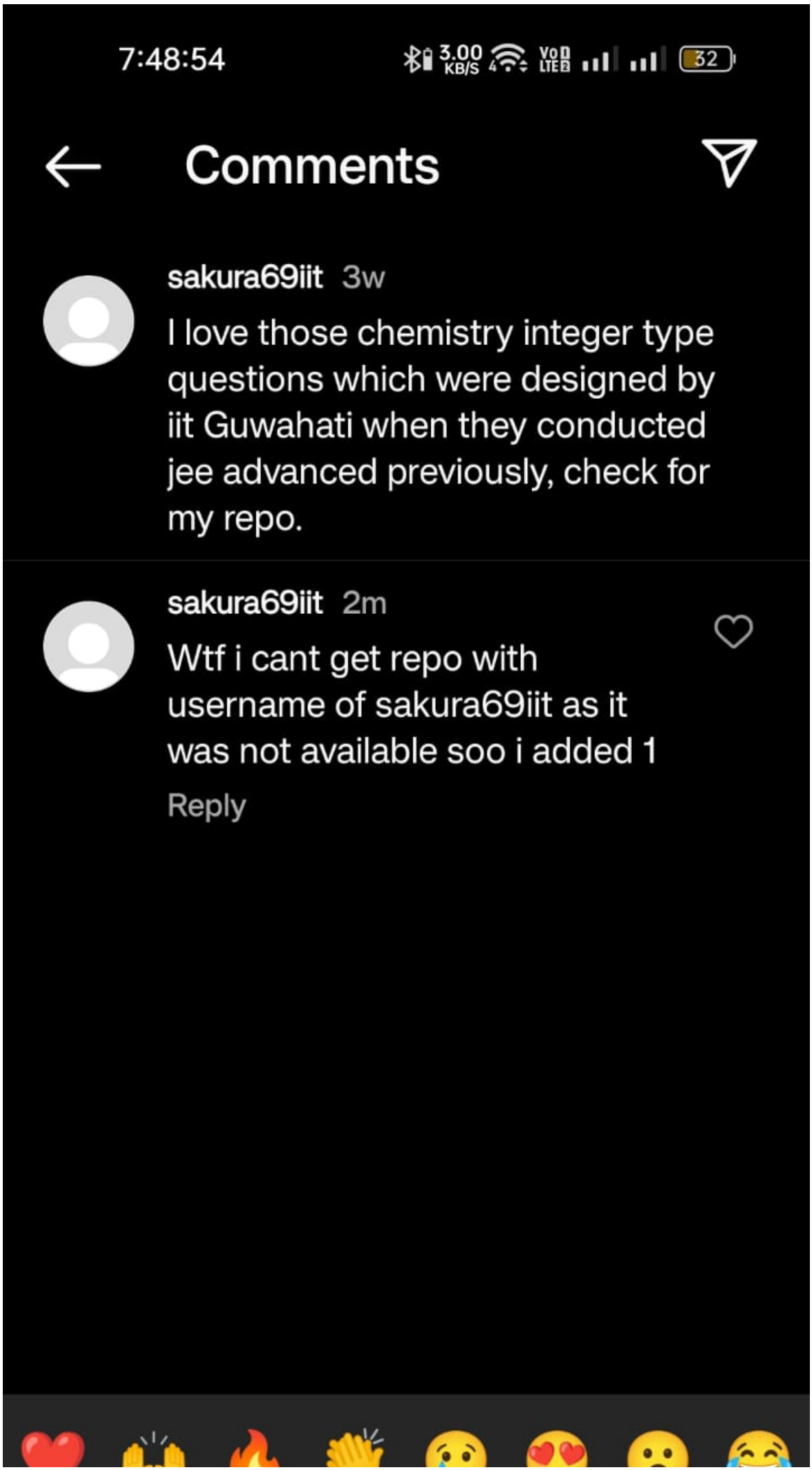
sakura69iit
IIT Gauhati

sakura69iit I love those chemistry integer type questions which were designed by iit Guwahati when they conducted jee advanced previously, check for my repo.

View 1 comment

January 18

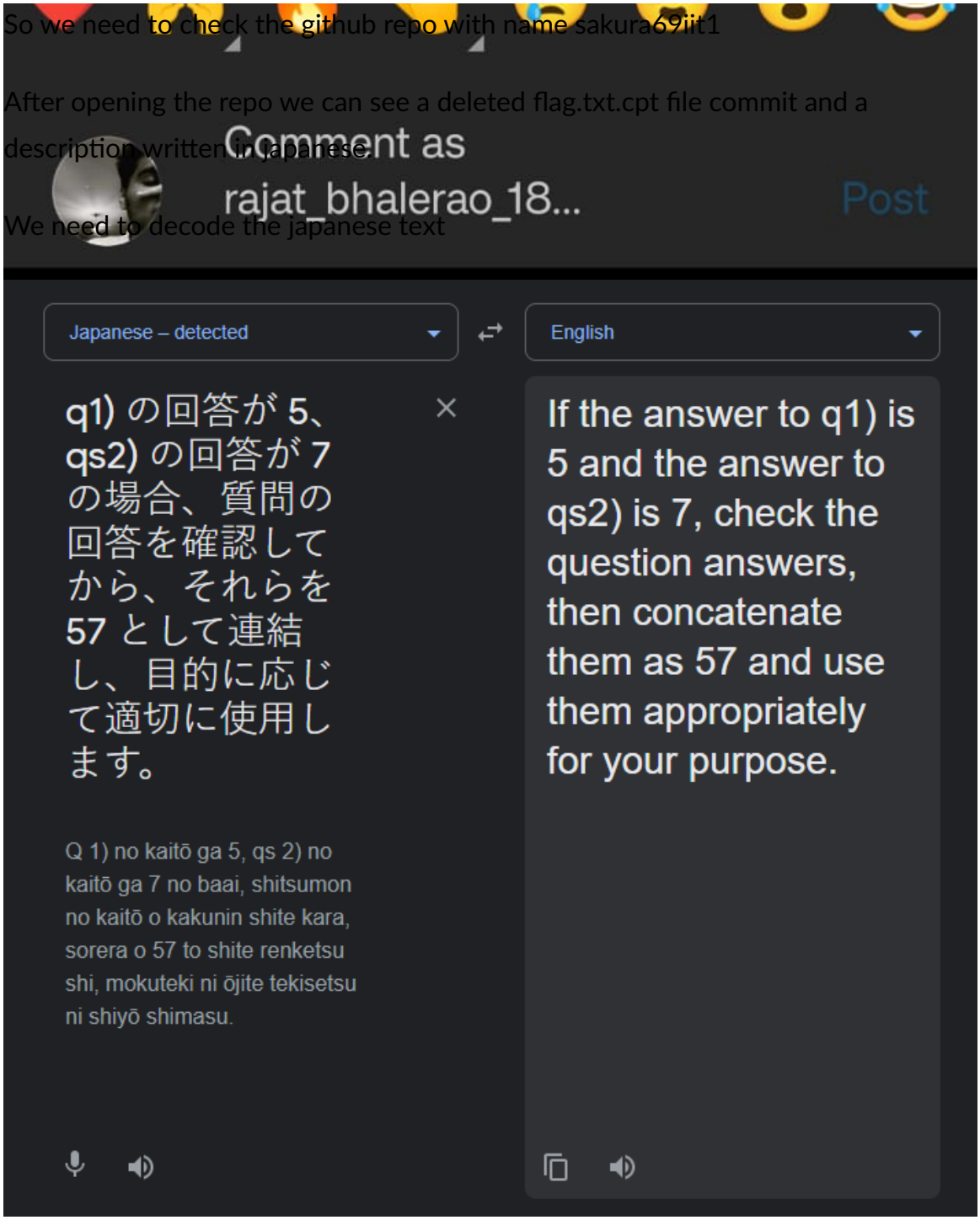
9. 


7:48:54
3.00 KB/S
32
Comments
sakura69iit 3w
I love those chemistry integer type questions which were designed by iit Guwahati when they conducted jee advanced previously, check for my repo.
sakura69iit 2m
Wtf i cant get repo with username of sakura69iit as it was not available soo i added 1
Reply

So we need to check the github repo with name sakura69iit1

10. After opening the repo we can see a deleted flag.txt.cpt file commit and a description written in japanese.

11. We need to decode the japanese text



12. We need to follow the instructions, and check the JEE Advanced paper conducted by IIT Guwahati previously which was in the year 2016; We must note that we need to check the chemistry integer type questions as mentioned in the instagram post.

13. Open the question paper of 2016 JEE Adv Chemistry, we can see that only paper1 has integer type questions, so we need to look after them.

Q.32 The mole fraction of a solute in a solution is 0.1. At 298 K, molarity of this solution is the same as its molality. Density of this solution at 298 K is 2.0 g cm^{-3}. The ratio of the molecular weights of the solute and solvent, $\left(\frac{MW_{solute}}{MW_{solvent}}\right)$, is

Q.33 The diffusion coefficient of an ideal gas is proportional to its mean free path and mean speed. The absolute temperature of an ideal gas is increased 4 times and its pressure is increased 2 times. As a result, the diffusion coefficient of this gas increases x times. The value of x is

Space for rough work

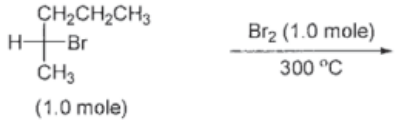
Answers for the above questions

Ans for Q.32: (9)	Ans for Q.33: (4)

Q.34 In neutral or faintly alkaline solution, 8 moles of permanganate anion quantitatively oxidize thiosulphate anions to produce **X** moles of a sulphur containing product. The magnitude of **X** is

Q.35 The number of geometric isomers possible for the complex $[CoL_2Cl_2]^-$ $(L = H_2NCH_2CH_2O^-)$ is

Q.36 In the following monobromination reaction, the number of possible chiral products is



(1.0 mole)

(enantiomerically pure)

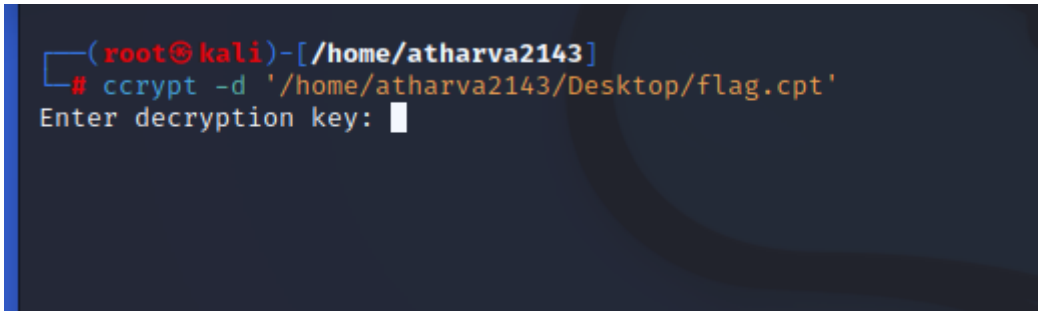
END OF PART II : CHEMISTRY

Space for rough work

Answers for the above questions

Ans for Q.34: (6)	Ans for Q.35: (5)	Ans for Q.36: (5)

14. We get numbers as 94655, use it to decrypt the given flag.cpt file using ccrypt

15. 

16. Upon decryption, we get the answer.
    VishwaCTF{11T_9UW4HAT1_2023_passphraseofthefile}

Flag : VishwaCTF{11T_9UW4HAT1_2023_94655}