

Enrollment No: _____

Exam Seat No: _____

C.U.SHAH UNIVERSITY

Winter Examination-2018

Subject Name: Advanced Chemistry

Subject Code: 5SC03ADC1

Semester: 3

Date: 18/03/2019

Branch: M.Sc. (Chemistry)

Time: 02:30 to 05:30

Marks: 70

Instructions:

- (1) Use of Programmable calculator and any other electronic instrument is prohibited.
 - (2) Instructions written on main answer book are strictly to be obeyed.
 - (3) Draw neat diagrams and figures (if necessary) at right places.
 - (4) Assume suitable data if needed.
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SECTION – I

- Q-1 Attempt the Following questions (07)**
- a. Give range of nanoparticle. (1)
 - b. Write any two examples of nitro dye. (1)
 - c. Define: Nanochemistry. (1)
 - d. Which type of fabric dyed by acidic dye. (1)
 - e. Give the structure of malachite green. (1)
 - f. Write full form of SWCNT. (1)
 - g. In vat dye process which chemical use for reduction? (1)
- Q-2 Attempt all questions (14)**
- a. Write a note on electro deposition method for bottom up approach. (5)
 - b. Write a note on chromophore and auxochrome. (5)
 - c. Write the properties of Nanomaterials. (4)
- OR**
- Q-2 Attempt all questions (14)**
- a. Write a note on carbon nanotube. (7)
 - b. Write classification of Nanomaterial. (7)
- Q-3 Attempt all questions (14)**
- a. Discuss classification of dye according to structure. (7)
 - b. Write a note on methyl orange with synthesis. (7)
- OR**
- Q-3 a. Write synthesis and use of malachite green and diamond black F. (7)**
- b. Explain mordant dye and also write synthesis of alizarin. (7)**



SECTION – II

- Q-4 Attempt the Following questions (07)**
- a. Give the range of microwave irradiation which used in microwave. (1)
 - b. Give any one name of website which is use to find chemical reactions and research papers ? (1)
 - c. Give the example of any oxidation catalyst used in green chemical reaction. (1)
 - d. What do you mean by real time analysis? (1)
 - e. Give full form of IPR. (1)
 - f. Define: Green chemistry. (1)
 - g. Give any two uses of chemdraw. (1)
- Q-5 Attempt all questions (14)**
- a. Write twelve principles of green chemistry. (6)
 - b. Discuss cheminformatics (4)
 - c. Write short note on patent. (4)
- OR**
- Q-5 a. Discuss acidic and basic catalyst for green chemistry. (7)**
- b. What is the microwave chemistry? Write any three synthesis of microwave chemistry. (7)**
- Q-6 Attempt all questions (14)**
- a. Write the name of international organization of IP and write major intellectual properties. (4)
 - b. Write use of computer and varies computer software in chemistry. (5)
 - c. Write brief note on xanthane dye . (5)
- OR**
- Q-6 Attempt all Questions**
- a. Write brief note on computational chemistry. (7)
 - b. Give the green synthesis of paracetamol and ibuprofen with description. (7)

