

No. of Printed Pages : 8

21CHE1S1LT

Question Booklet Code

A

Question Booklet
Serial Number

M.Sc. I Semester Degree Examination, April/May - 2023

Skill Enhancement Courses (SEC)

CHEMISTRY

R and D and Quality Control

Time : 1 Hour

Maximum Marks : 30

INSTRUCTIONS TO CANDIDATES

1. The Question Paper will be given in the form of a Question Booklet. There will be four/two/one versions of Question Booklets with Question Booklet Code viz. **A, B, C & D / A & B / A**.
2. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your Question Booklet is un-numbered, please get it replaced by new Question Booklet with same Code.
3. Immediately after the commencement of the examination, the candidate should check that the Question Booklet supplied to him contains all the 30 questions in serial order. The Question Booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same Code. This is most important.
4. A blank sheet of paper is attached to the Question Booklet. This may be used for Rough Work.
5. **Please read carefully all the instructions on the top of the Answer Sheet before marking your answers.**
6. Each question is provided with four choices **(A), (B), (C)** and **(D)** having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using **Black Ball-Point Pen** in the OMR Answer Sheet.
7. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator.
8. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.
9. First fifteen minutes is provided to fill the general information of the Student. Eg. Student Name, Student ID, etc. in the OMR Answer Sheet.
10. Without the instruction of the Invigilator do not open the Question Paper Booklet Seal.

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P.T.O.

1. What is TQM or Total Quality Management ?
 - (A) A Company focused process
 - (B) A customer-focused process
 - (C) A product focused process
 - (D) All of the above

2. What are effluents ?
 - (A) Effluent is water leakage from overhead tank
 - (B) Effluent is sewage that has been treated in chemical industry
 - (C) Effluent is sewage that has been treated in a septic tank
 - (D) All of the above

3. Who is interviewee ?
 - (A) A person who conducts an interview
 - (B) A person being interviewed
 - (C) Both (A) and (B)
 - (D) Only (A)

4. What is process development in R & D ?
 - (A) Developing a product that meet a specific need, while factoring in business considerations.
 - (B) The exercise of creating a means to manufacture a given product in a given quantity.
 - (C) Both (A) and (B)
 - (D) Only (B)

5. Why case study is important in management ?
 - (A) It provide students with an exposure to the actual working of business
 - (B) Its study reflect the reality of managerial decision-making in the real world
 - (C) Both (A) and (B)
 - (D) Only (B)



6. The first order of business in the resume planning process is to prepare your work environment. What is needed to start resume writing ?
- (A) A computer (laptop or desktop)
 - (B) A blank word document (Word, Google Doc, Evernote, etc)
 - (C) Your preferred web browser
 - (D) All of the above
7. What is ChemDraw[®] is used for ?
- (A) To draw structures of various molecules
 - (B) To assign IUPAC nomenclature
 - (C) Predict HNMR
 - (D) All of the above
8. What is waste water regulation ?
- (A) National regulatory standards for waste water discharged to surface waters
 - (B) National regulatory standards for municipal sewage treatment plants
 - (C) Both (A) and (B)
 - (D) None of the above
9. What is the validity of Patents ?
- (A) 10 years (B) 20 years (C) 30 years (D) 45 years
10. What is outsourcing ?
- (A) Commodity chemicals
 - (B) Specialty Chemicals
 - (C) Fine chemicals
 - (D) Is an activity performed within the same business, using the company's assets and employees to perform the necessary work
11. At what stage quality assurance come into play during the products are developed ?
- (A) When the product is in the development process
 - (B) When the product comes out of the factory
 - (C) At the initial stage of product development
 - (D) When product is in the market



- 12.** How heavy metals be incinerated ?
- (A) Heavy metals can be released into the environment after high-temperature incineration or gasification
 - (B) Heavy metals can be released into the environment directly
 - (C) Heavy metals can be released into the environment after dissolving in the water
 - (D) All of the above
- 13.** What is SciFinder ?
- (A) Database of chemical
 - (B) Bibliographic information
 - (C) Both (A) and (B)
 - (D) None of the above
- 14.** What is Limit of quantification LOQ ?
- (A) It is the smallest amount
 - (B) It is the lowest concentration of a substance that is possible to be determined
 - (C) Only (A)
 - (D) Both (A) and (B)
- 15.** What is failure testing ?
- (A) This phase is usually the longest phase in the project management life cycle
 - (B) Determines a system's reliability, and how each component of a system will react when the modules it depends on are not available
 - (C) Both (A) and (B)
 - (D) Only (A)
- 16.** The DMAIC project methodology has five phases. Which of the following isn't the phase involved in it ?
- (A) Define the system
 - (B) Measure key aspects
 - (C) Analyze the data
 - (D) Correct the future state process
- 17.** Which of the following term not included in Kaizen concept ?
- (A) Point Kaizen
 - (B) System Kaizen
 - (C) Line Kaizen
 - (D) Circle Kaizen



18. Which of the following method isn't involved in Solid Waste Disposal and Management ?
- (A) Solid Waste Open Burning
 - (B) Sea dumping process
 - (C) Solid wastes sanitary landfills
 - (D) Throwing in open water
19. How Intellectual Property Rights be useful for pharmaceutical companies ?
- (A) Patents provide pharma companies exclusive rights to market drugs.
 - (B) Patents provide pharma companies to prevent others to manufacture.
 - (C) Patents provide pharma companies to prevent others to sell, and make these drugs for a period of 20 years.
 - (D) All of the above
20. What is LOD (Limit of Detection) ?
- (A) It is the highest analyte concentration
 - (B) It is the lowest analyte concentration
 - (C) Both (A) and (B)
 - (D) Only (A)
21. What is Product Development ?
- (A) This is the stage in the production where all the steps needed to take a product from concept to market availability.
 - (B) The exercise of creating a means to manufacture a given product in a given quantity.
 - (C) Developing a product that meet a specific need, while factoring in business considerations.
 - (D) All of the above



- 22.** What is Molecular docking ?
- (A) Nomenclature of the molecules
 - (B) General stereochemistry
 - (C) A method which predicts the preferred orientation of one molecule to a second when a ligand and a target are bound to each other to form a stable complex.
 - (D) All of the above
- 23.** What is the antidote for heavy metal poisoning ?
- (A) Chelation therapy
 - (B) Naturopathy
 - (C) Yoga
 - (D) Surya namaskaara
- 24.** DMAIC stands for ?
- (A) Define, Measure, Analyze, Improve, Control
 - (B) Define, Measure, Analyze, Improve, Correct
 - (C) Detect, Measure, Analyze, Improve, Control
 - (D) Define, Measure, Analyze, Invest, Cancel
- 25.** What is a quality circle or quality control circle ?
- (A) It consists of minimum three and maximum twelve members in number
 - (B) It is a group of workers who do the same or similar work
 - (C) Who meet regularly to identify, analyse and solve work-related problems
 - (D) All of the above
- 26.** What is execution and control ?
- (A) A phase where the project team build and produce the deliverables required
 - (B) It begins after the approval of project plans and the allocation of the resources necessary for executing the tasks
 - (C) This phase is usually the longest phase in the project management life cycle
 - (D) All of the above



27. Which of the following isn't chemistry related industry ?
- (A) Chemical Wholesaling Industry
 - (B) Fertilizer Manufacturing Industry
 - (C) Apiculture
 - (D) Soap Industry
28. What is ISO ?
- (A) Indian Standard Organization
 - (B) International Organization for Standardization
 - (C) Both (A) and (B)
 - (D) Only (B)
29. What is/are the perspective about research that presents information in a successive way from broad constructions of research to the narrow procedures of methods ?
- (A) Research approaches
 - (B) Research designs
 - (C) Research methods
 - (D) All of the above
30. What are commodity chemicals ?
- (A) Chemicals generally made in large volumes
 - (B) Specialty Chemicals
 - (C) Fine chemicals
 - (D) None of the above

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SPACE FOR ROUGH WORK

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