

26/11/2025

Total marks: 75

Duration: 3 Hours

- N.B.: 1. All questions are compulsory
2. Figures to right indicate full marks.

Q.I Multiple Choice Questions**20M****1 Which of the following is the responsibility of pilot plant team?**

- a) Equipment selection
- b) Staff selection
- c) Design of promotional brochure
- d) Patent application

2 Which factor is critical during scale-up of tablets?

- a) Selection of bottle filling machine
- b) Score marks on the tablet
- c) Color of the tablet
- d) Selection of Dryer

3 SUPAC guidelines are applicable for the changes -

- a) During Research & development
- b) In Pilot plant studies
- c) After product is marketed
- d) In the patent application

4 Which of the following is an example of a platform technology?

- a) Dry granulation
- b) Nanoparticles
- c) Tablet compression
- d) Soft gelatin capsules

5 SUPAC stands for-

- a) System Utilization and Pre Marketing Application Changes
- b) Scale Up and Pre Marketing Application Changes
- c) Scale Up and Post Marketing Approval Changes
- d) System Utilization and Post Marketing Approval Changes

6 What is the primary objective of technology transfer in the pharmaceutical industry according to WHO guidelines?

- a) To ensure consistent product quality and regulatory compliance
- b) To reduce production costs
- c) To improve packaging design
- d) To increase marketing reach

7 Which phase of Tech Transfer involves the assessment of the receiving unit's capability to manufacture the product?

- a) Clinical Trials
- b) Process Validation
- c) Analytical Method Transfer
- d) Feasibility Study

8 Responsibility of successful technology transfer lies with

- a) The receiving unit
- b) The sending unit
- c) Both sending and receiving units
- d) WHO

9 The preparation of Master Packing Card is done in

- a) Research Phase
- b) Development Phase
- c) Production Phase
- d) Analytical Method Transfer phase

10 Which CTD Module contains both Nonclinical Overview and Clinical Overview information ?

- a) Module 2
- b) Module 3
- c) Module 4
- d) Module 5

11 Which part of the Investigator's brochure contains Pharmacological and Toxicological information?

- a) Summary
- b) Non-clinical Studies
- c) Clinical Studies
- d) Safety information

12 Which document is submitted to obtain approval for human clinical trials?

- a) NDA
- b) IND
- c) DMF
- d) ANDA

13 CDSCO (Central Drugs Standard Control Organization) is the national regulatory Authority of which country?

- a) India
- b) USA
- c) Australia
- d) Japan

14 The main role of regulatory professionals is to

- a) Design drug molecules for CMC
- b) Prepare and submit FDA approval documents
- c) Conduct Clinical Trials for IND
- d) Conduct Preclinical Trials for IND

15 In Six Sigma, "DMAIC" stands for

- a) Develop, Monitor, Adjust, Implement, Control
- b) Determine, Manage, Adjust, Improve, Correct
- c) Define, Measure, Analyze, Improve, Control
- d) Design, Manage, Act, Inspect, Control

16 ISO 9000 series primarily deals with

- a) Environmental management
- b) Laboratory accreditation
- c) Product management
- d) Quality management systems

17 Which of the following is a key principle of Good Laboratory Practice (GLP)

- a) Use of uncertified instruments
- b) Documentation and traceability
- c) Data deletion after analysis
- d) Informal reporting

18 The Drugs Controller General of India (DCGI) functions under

- a) WHO
- b) CDSCO
- c) MHRA
- d) EMA

19 The Drugs and Cosmetics Act was passed in which year?

- a) 1940
- b) 1950
- c) 1960
- d) 1965

20 The Common Technical Document (CTD) format, under ICH M4, is used for

- a) Compiling Quality, Safety, and Efficacy data
- b) Compiling Packaging and Quality Data
- c) Compiling Manufacturing and Efficacy Data
- d) Compiling Validation and Safety Data

QII Answer the following (any two)

20

- 1 a) Define the levels of change as per SUPAC guidelines and give requirements of documents for each one. **6**
- b) What are the advantages of Platform Technology? Explain in brief any one type of platform technology. **4**
- 2 Specify the roles and responsibilities of SU and RU in Tech Transfer. Explain the contents and importance of Project Report **10**
- 3 Define IND. Elaborate in detail about General considerations of Investigational New Drug Application. **10**

QIII Answer the following (any seven)

35

- 1 State the objectives of Pilot plant Study. Give composition of the team. **5**
- 2 What is the role of Tech Transfer Agencies? State the functions of any one agency. **5**
- 3 Elaborate on the role of documentation in Tech Transfer with suitable examples. **5**
- 4 Write the importance of Bioequivalence studies in Pharmaceutical Product Development. **5**
- 5 Discuss in detail the two phases of an Out of Specification (OOS) Investigation. **5**
- 6 Write a note on the concept and methodologies of Six Sigma. **5**
- 7 Elaborate on benefits and procedure of NABL Accreditation. **5**
- 8 Write a short note on Central drugs Standard Control of Organization (CDSCO). **5**
- 9 Elaborate in brief about COPP. **5**

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