

Devi Ahilya Vishwavidyalaya

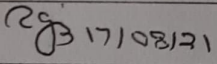
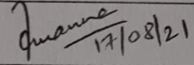
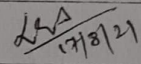
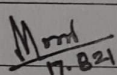
Minutes of Meeting of Board of Studies (Pharmacy), Faculty of Technology

A meeting of Board of Studies in Pharmacy (Faculty of Technology) was held on 17/08/2021 at 3 pm. The following members were present:

- | | |
|----------------------------|-------------------|
| 1. Dr. Rajesh Sharma | Dean and Chairman |
| 2. Dr. Tamanna Narsinghani | Member |
| 3. Dr. Love Kumar Soni | Member |
| 4. Dr. E. Manivannan | Member |

The meeting started with welcome to all the members of Board of Studies by Chairman. The syllabus for Doctoral Entrance Test was revised. Copy of the revised syllabus is enclosed.

The meeting ended with thanks to the Chairman.

S.No.	Name	Signature
1	Dr. Rajesh Sharma	 17/08/21
2	Dr. Tamanna Narsinghani	 17/08/21
3	Dr. Love Kumar Soni	 17/8/21
4	Dr. E. Manivannan	 17-821

DEVI AHILYA VISHWAVIDYALAYA, INDORE
DOCTORAL ENTRANCE TEST IN PHARMACY
(FACULTY OF TECHNOLOGY)

SYLLABUS

The Doctoral Entrance Test will have the question paper in two parts: Part-A and Part B of 50 marks each.

PART-A: 50 marks

Part- A shall consist of 50 objective type compulsory questions of 1 mark each. It shall be of generic nature, intended to assess the research aptitude of the candidate. It will primarily be designed to test **reasoning ability, data interpretation, and quantitative aptitude** of the candidate.

PART B: 50 marks

Part B shall also consist of 50 objective type compulsory questions of 1 mark each based on the syllabus of the subject at Masters' level as follows:

1. **Pharmaceutical Analytical Techniques:** Spectroscopy: UV-Visible Spectroscopy, 22
Infrared Spectroscopy, NMR Spectroscopy, Raman Spectroscopy, marks
Spectrofluorimetry, Flame Emission Spectroscopy, Atomic Absorption
Spectroscopy, Mass Spectrometry.
Chromatography: Thin Layer Chromatography, High Performance Thin Layer
Chromatography, Ion Exchange Chromatography, Column Chromatography, Gas
Chromatography, High Performance Liquid Chromatography, Ultra High-
Performance Liquid Chromatography, Affinity Chromatography, Gel
Chromatography, Flash Chromatography, Super Critical Chromatography,
Hyphenated techniques, Electrophoresis, X-ray Crystallography.
Thermal analytical techniques, Bioassay and Radio-immuno assay.
2. **Pharmacological and Microbiological Screening:** CPCSEA guidelines to conduct 07
experiments on animals. Preclinical screening of new substances for the marks
pharmacological activity using *in vivo*, *in vitro*, and other possible animal alternative
models: Anti-convulsant, anti-depressant, anxiolytic, analgesic, anti-inflammatory,
anti-ulcer, anti-diabetic, anti-hyperlipidemic, hepatoprotective, immunomodulatory.
Cell culture and cytotoxicity determination. Determination of LD₅₀, ED₅₀, IC₉₀.
Identification of microbes and microbial culture, microbial susceptibility test.

w.e.f. August-2021

1 of 2

M
17.08.21

J
17/8/21

LVA
17/8/21

R
17.08.2021

3. **Drug regulatory affairs:** Indian Patent Act 1970 and its amendments, Concepts of IPR, criteria for granting patents, and filing an Indian patent. Patent infringement. INDA, NDA, ANDA filing, Para I, II, III and IV filing. Hatch-Waxman amendments. OECD guidelines for chemical testing pertaining to use as drug, related substances, excipients, toxicity etc. and ICH guidelines, cGMP and GLP. **07 marks**
4. **Physicochemical properties of drug:** Rules for rapid property profiling from structure, lipophilicity, solubility and permeability, pH, pKa, Ionization, Hydrogen bonding, Complexation, Protein binding, Bioisoterism, Effect of Physicochemical properties on Absorption, Distribution, Metabolism, Elimination and Toxicity of Active Pharmaceutical Ingredients. **07 marks**
5. **Biostatistics:** An Introduction to Biostatistics, Distribution pattern: Types of theoretical probability distribution, normal, Binomial and Poison Distribution, Sample and Sampling: Introduction, Types of sampling, characteristics of good sampling design, Limitation of sampling, sample size, factors affecting sample size and importance of sample size, Hypothesis: Introduction, Formulation and testing of hypothesis, Level of significance, Type I and II error, Parametric (t-test, F-test, ANOVA) and non-parametric test (Chi-square test, Sign test, Signed rank test, Mann-Whitney U test, Kruskal-Wallis test, Friedman Test), Correlation and Regression. **07 marks**

Mood
17.08.21

Juana
17/8/21

L.S.
17/8/21

2g
17/08/21