

# HALDIA INSTITUTE OF PHARMACY

ICARE Complex, Hatiberia, Haldia, Purba Medinipur, W.B. – 721657

Programme:	B. Pharm	Semester:	IV
Subject:	Physical Pharmaceutics II	Subject Code:	BP407P

## List of Experiments

Day	Exp. No.	Name of Experiment	Reference
Day 1	1.	Determination of particle size, particle size distribution using sieving method	Suryawanshi. M. R, 2019, 'Practical physical pharmaceutics-II', edition 2019, page no- 3, S. Vikas and company publishers.
Day 2	2.	Determination of particle size, particle size distribution using Microscopic method	Same as above, page no- 7
Day 3	3.	Determination of bulk density, true density and porosity	Same as above, page no- 12
Day 4	4.	Determine the angle of repose and influence of lubricant on angle of repose	Same as above, page no- 17
Day 5	5.	Determination of viscosity of liquid using Ostwald's viscometer	Same as above, page no- 21
Day 6	6.	Determination sedimentation volume with effect of different suspending agent	Same as above, page no- 26
Day 7	7.	Determination sedimentation volume with effect of different concentration of single suspending agent	Same as above, page no- 30
Day 8	8.	Determination of viscosity of semisolid by using Brookfield viscometer	Same as above, page no- 36
Day 9	9.	Determination of reaction rate constant first order.	Same as above, page no- 40
Day 10	10.	Determination of reaction rate constant second order	Same as above, page no- 45
	11.	Accelerated stability studies	Guru Prasad Mohanta, Prabal Kumar Manna. Pulisher 2006, Physical Pharmacy Practical text, edition 2006, page 89-93, Pharma Book Syndicate.



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Programme:	B. Pharm	Semester:	IV
Subject:	Pharmacology I	Subject Code:	BP408P

## List of Experiments

Day	Exp. No.	Name of Experiment	Reference
Day 1	1.	Introduction to experimental pharmacology	Mandeep Kumar Arora, A Practice Book of Pharmacology-I, Nirali Prakashan, Page: 1-4
	2.	Commonly used instruments in experimental pharmacology	Same as above, Page: 5-12
	3.	Study of common laboratory animals	Same as above, Page: 13-19
Day 2	4.	Maintenance of laboratory animals as per CPCSEA guidelines.	Uma Bhandari, Vinay Kumar, Rahila Ahmad Pathan, Introduction to Experimental Pharmacology, Birla Publication, Edition 2019-20, Page no: 15-24
	5.	Common laboratory techniques of Blood withdrawal, serum and plasma separation, anesthetics and euthanasia used for animal studies	Mandeep Kumar Arora, A Practice Book of Pharmacology-I, Nirali Prakashan, Page: 24-38
Day 3	6.	Study of different routes of drugs administration in mice/rats.	Same as above, Page: 39-43
Day 4	7.	Effect of drugs on ciliary motility of frog oesophagus	S K Kulkarni, Handbook of Experimental Pharmacology, Vallabh Prakashan, Edition 2020, Page: 186-187
Day 5	8.	Effect of drugs on rabbit eye.	Same as above, Page: 193-195
Day 6	9.	Effects of skeletal muscle relaxants using rota-rod apparatus.	Same as above, Page: 136-137
Day 7	10.	Effect of drugs on locomotor activity using actophotometer.	Same as above, Page: 134-136
Day 8	11.	Anticonvulsant effect of drugs by MES method	Same as above, Page: 144-146
Day 9	12.	Study of anxiolytic activity of drugs using rats/mice.	Same as above, Page: 146-148
Day 10	13.	Study of local anesthetics by different methods	Mandeep Kumar Arora, A Practice Book of Pharmacology-I, Nirali Prakashan, Page: 63-65



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Programme:	B. Pharm	Semester:	IV
Subject:	Medicinal Chemistry I	Subject Code:	BP406P

## List of Experiments

Day	Exp. No.	Name of Experiment	Reference
Day 1	1.	To carry out the synthesis of 3-methyl-1-phenyl pyrazole-5-one (Paal-Knorr Synthesis) from ethyl acetoacetate.	Tiwari A, Kumar R. A Practical Book of Medicinal Chemistry. 1 <sup>st</sup> ed. Pune: Niral Prakashan; 2019. p. 01
	2.	To carry out the synthesis of 4-benzylidene-2-phenyl oxazole-5-one from glycine.	Same as above. p. 05
Day 2	3.	To carry out the synthesis of Benzimidazole from o-phenylenediamine.	Rajak H. Practical Medicinal Chemistry. 1 <sup>st</sup> ed. New Delhi: CBS Publishers & Distributors Pvt. Ltd; 2021. p. 8-9
Day 3	4.	To carry out the synthesis of Benzotriazole from o-phenylenediamine.	Same as above. p. 10-11
Day 4	5.	To carry out the synthesis of 2,3-Diphenyl quinoxaline from benzil.	Same as above. p. 12-13
	6.	To carry out the synthesis of Benzocaine from p-aminobenzoic acid.	Same as above. p. 15-16
Day 5	7.	To carry out the synthesis of Phenytoin from Benzil.	Kar A. Medicinal Chemistry. 6 <sup>th</sup> ed. New Delhi: New Age International (P) Limited, Publishers; 2015. p. 495-496
	8.	To carry out the synthesis of Phenothiazine from diphenylamine.	Rajak H. Practical Medicinal Chemistry. 1 <sup>st</sup> ed. New Delhi: CBS Publishers & Distributors Pvt. Ltd; 2021. p. 19-20
Day 6	9.	To carry out the synthesis of Barbituric acid from diethyl malonate.	Tiwari A, Kumar R. A Practical Book of Medicinal Chemistry. 1 <sup>st</sup> ed. Pune: Niral Prakashan; 2019. p.23
Day 7	10.	To perform the assay of Chlorpromazine hydrochloride.	Indian Pharmacopoeia 2010. 6th ed. Vol. II. Ghazibad: The Indian Pharmacopoeia Commission; 2010. p. 1072
	11.	To perform the assay of Phenobarbitone.	Indian Pharmacopoeia 2010. 6th ed. Vol. III. Ghazibad: The Indian Pharmacopoeia Commission; 2010. p. 1890
Day 8	12.	To perform the assay of Ibuprofen.	Indian Pharmacopoeia 2010. 6th ed. Vol. II. Ghazibad: The Indian Pharmacopoeia Commission; 2010. p. 1479
	13.	To perform the assay of Aspirin.	Same as above. p. 842
Day 9	14.	To perform the assay of Furosemide.	Same as above. p. 1391
Day 10	15.	To determine the partition coefficient of given compound using Shake Flask Method. (Salicylic Acid, Paracetamol)	Rajak H. Practical Medicinal Chemistry. 1 <sup>st</sup> ed. New Delhi: CBS Publishers & Distributors Pvt. Ltd; 2021. p. 55-56



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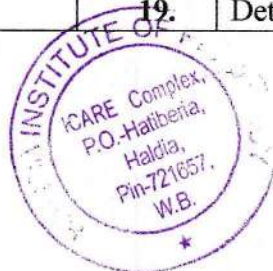
# HALDIA INSTITUTE OF PHARMACY

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Programme:	B. Pharm	Semester:	IV
Subject:	Pharmacognosy and Phytochemistry I	Subject Code:	BP409P

## List of Experiments

Day	Exp. No.	Name of Experiment	Reference
Day 1	1.	Analysis of crude drugs by chemical tests: a) Gum Tragacanth	Practical book of Pharmacognosy & Phytochemistry-I by S.B.Gokhale (1.5)
	2.	Analysis of crude drugs by chemical tests: b) Gum Acacia	Same as above. p. 1.1-1.2
	3.	Analysis of crude drugs by chemical tests: c) Agar	Same as above. p. 1.2-1.3
	4.	Analysis of crude drugs by chemical tests: d) gelatin	Same as above. p. 1.6-1.8
Day 2	5.	Analysis of crude drugs by chemical tests: e) starch	Same as above. p. 1.3-1.5
	6.	Analysis of crude drugs by chemical tests: f) honey	Same as above. p. 1.6
	7.	Analysis of crude drugs by chemical tests: g) Castor oil	Same as above. p. 1.8
Day 3	8.	Determination of stomatal number	Same as above. p. 2.1-2.2
	9.	Determination of stomatal index	Same as above
Day 4	10.	Determination of vein islet number, vein islet termination	Same as above. p. 3.1-3.3
	11.	Determination of palisade ratio	
Day 5	12.	Determination of size of starch grains, calcium oxalate crystals by eye piece micrometer	Same as above. p. 4.1-4.3
Day 6	13.	Determination of fiber length and width	Same as above. p. 5.1
Day 7	14.	Determination of number of starch grains by lycopodium spore method	Same as above. p. 6.1-6.2
Day 8	15.	Determination of Ash value	Same as above. p. 7.1-7.3
Day 9	16.	Determination of extractive values of crude drugs	Same as above. p. 8.1-8.2
	17.	Determination of moisture content of crude drugs	Same as above. p. 9.1
Day 10	18.	Determination of swelling index	Same as above. p. 10.1-10.2
	19.	Determination of foaming index	



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