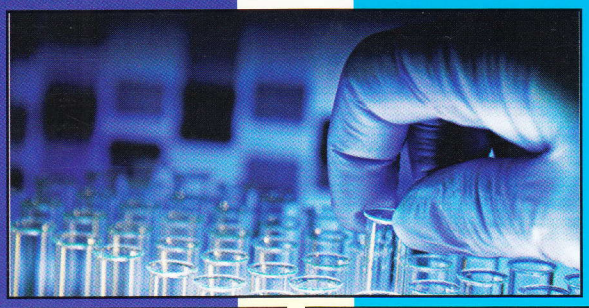
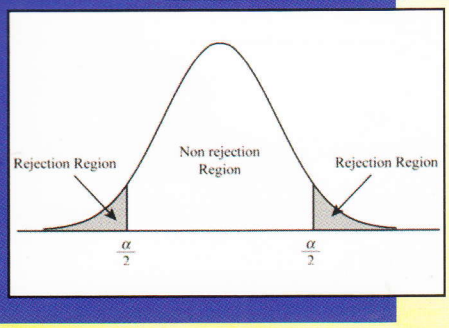
AS PER PCI REGULATIONS

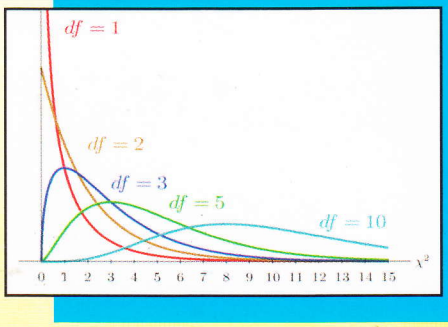
THIRD YEAR B. PHARM.
SEMESTER-VI

EXPERIMENTAL PHARMACOLOGY-III

Dr. GHANSHYAM PANIGRAHI Dr. ARJUN PATRA







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ABOUT THE AUTHORS

Dr. Ghanshyam Panigrahi is working as Associate Professor and Head, Department of Pharmacology, Royal College of Pharmacy and Health Sciences, Berhampur, Odisha. He has deep insight into experimental pharmacology and preclinical testing of drugs. He has experience of 13 years in teaching experimental pharmacology to undergraduate and postgraduate students. His fields of research interest are natural product research, diabetes mellitus and associated disorders. His research work has been published in more than 35 research articles. He has guided numbers of M. Pharm. and Ph.D. scholars to carry out their research work. Dr. Panigrahi is a life member of Indian Pharmacological Society (IPS) and The Association of Pharmaceutical Teachers of India (APTI).

Dr. Arjun Patra obtained postgraduate and doctorate degree from Birla Institute of Technology, Mesra, Ranchi. Recently he has completed Postdoctoral Research in USA under Raman Fellowship funded by University Grants Commission. He has around 16 years of teaching experience in various pharmacy colleges at Berhampur, Moradabad and Jaipur, and currently working as Assistant Professor at Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur, Chhattisgarh. Dr. Patra has supervised M. Pharm. and Ph.D. students and published and presented research papers in national/international journals/conferences. Dr. Patra specializes in Pharmacognosy and has studied a wide range of plants for their phytochemical and pharmacological potential. Dr. Patra's major fields of research interest are natural product exploration, nano-delivery of natural products for treatment of cancers and screening of medicinal plants for different pharmacological activities.

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Experiment No. 7

EFFECT OF SALINE PURGATIVE ON FROG INTESTINE

(Chapter contributed by Dr. Ghanshyam Panigrahi and Dr. Arjun Patra)

Purpose:

At the end of practical class, the students shall be able to:

1. Know about the laxatives and purgatives.
2. Know about the mechanism of action, uses and adverse effects of laxatives and purgatives.
3. Know the effect of saline purgative on frog intestine.

Terminology:

Laxative or Aprepitant: These are drugs that promote evacuation of bowels by milder action and elimination of soft but formed stools.

Purgative or Cathartic: These are drugs that promote evacuation of bowels by stronger action and resulting in more fluid evacuation.

Description:

Laxative and purgative are drugs that promote evacuation of bowels and a distinction is sometimes made according to the intensity of action. Many drugs in low doses act as laxative and in larger doses as purgative. All purgatives increase the water content of faeces by: (a) A hydrophilic or osmotic action, retaining water and electrolytes in the intestinal lumen increases thereby increasing the volume of colonic content and make it easily propelled. (b) Acting on intestinal mucosa, decrease net absorption of water and electrolyte; intestinal transit is enhanced indirectly by the fluid bulk. (c) Increasing propulsive activity as primary action, allowing less time for absorption of salt and water as a secondary effect.