

Seat No.:-----

Enrolment No.:-----

**UKA TARSADIA UNIVERSITY**

**Maliba Pharmacy College**

**M.Pharm (Sem 2) Mid Semester Examination 2012**

**040030201 - 040060201 Research Methodology, Experimental Design and Patent**

**Date: 19/04/2012**

**Max. Marks: 70**

**Instructions:** Question no. 1 is compulsory.

From Q.2 to Q.7 attempt any **four** questions.

Figures to the right indicate full marks.

- Q.1 (a) Answer the following: (any six) 06**
- 1 What is a patent?
  - 2 What do PCT and WTO stand for?
  - 3 When was the Patent Act last amended?
  - 4 Where are the patent offices in India located?
  - 5 What is the difference between product and process patent?
  - 6 What is full form of TRIPS?
  - 7 What are copyrights?
  - 8 Give four examples of geographical indications.
- (b) Describe in brief: (any four) 08**
- 1 What do you understand by deductive and inductive thinking?
  - 2 Explain briefly descriptive research.
  - 3 What are IPRs? Enlist the various types of IPRs.
  - 4 Write the difference between trade mark and trade name.
  - 5 What are the different types of patent applications?
  - 6 What is meant by infringement?
- Q.2 (a) What do you understand by research? What are different objectives of research? 04**
- (b) Describe research problem and process for defining a research problem. 05**
- (c) Write a note on establishment of research objective with reference to different types of objectives. 05**
- Q.3 (a) Which are different sources of literature for research work? Rate these sources as per their credibility with proper justification. 04**
- (b) What is the importance of literature review in research? Explain briefly any one method of recording the literature. 05**
- (c) Define hypothesis. Explain characteristics, functions and types of hypothesis. 05**
- Q.4 (a) Give a brief outline of Placket Burman design. How are the main effects computed in this design? 04**
- (b) Explain terminology like Interaction, Levels and quantitative, qualitative factors with reference to DOE. 05**
- (c) Explain significance of ANOVA in factorial design. 05**
- Q.5 (a) What are different purposes and types of DOE methods? 04**
- (b) Specify the categories of inventions that are not patentable. 05**
- (c) Describe the patent filing procedure in India. 05**
- Q. 6 (a) Discuss the benefits of IPRs, especially patents, to researchers. 04**
- (b) Discuss the conditions to be satisfied for an invention to be patentable. 05**
- (c) Write a note on the PCT patent filing procedure. 05**
- Q.7 (a) Write a note on laboratory notebook. 04**
- (b) What are provisional and complete specifications? Describe their contents. 05**
- (c) Explain briefly the history and key provisions of TRIPS Agreement. 05**

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