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INTERNAL ASSESSMENT TEST – II

Sub:	Research Methodology & Intellectual Property Rights						Code:	BRMK557	
Date:	14/ 12 / 2024	Duration:	90 mins	Max Marks:	50	Sem:	V	Branch:	All

Answer any 5 full questions

		Marks	CO	RBT
1	What is research? Briefly explain the categories of knowledge in research. Explain the objectives of research.	10	CO1	L2
2	Explain the research process with a neat diagram. Explain in detail about the criteria of a good research.	10	CO1	L1
3	Discuss the effective way of searching the literature.	10	CO2	L1
4	Explain in brief any one Bibliographic database used for abstracting and indexing of research articles.	10	CO2	L2
5	Write the ASCE and IEEE style of citation for a) “Engineering Research Methodology” text book written by Dipankar Deb, Rajeeb Dey and Valentina E. Balas and published by Springer Nature Singapore Pte Ltd in the year 2019. b) A research article “Intellectual property rights: An overview and implications in pharmaceutical industry” written by Chandra Nath Saha and Sanjib Bhattacharya is published in Journal of Advanced Pharmaceutical Technology and Research, in 2011 vol 2 sl.no 2 containing pages from 88 to 93	10	CO2	L3
6	Explain the following about design registration: (i) Design Rights (ii) Enforcement of Design Rights (iii) Protection term of Design	10	CO5	L1
7	Differentiate between GI, Trademark and Traditional Knowledge	10	CO5	L2

Solution

1) What is research? Briefly explain the categories of knowledge in research. Explain the objectives of research. Research refers to careful, well defined (or redefined), objective and systematic method of search for knowledge, or formulation of theory, that is driven by inquisitiveness for that which is unknown and useful on a particular aspect so as to make an original contribution to expand the existing knowledge base.

❖ Observation

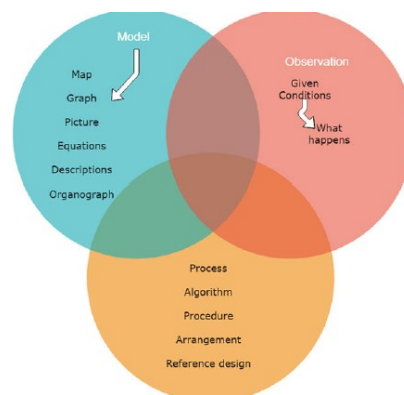
- o Fundamental way for obtaining information.
- o Eg. laboratory experiments, firmwares etc.
- o Processed observation leads to model.

❖ Model

- o Approximate representations.
- o Statistical models, Mathematical models etc.
- o modeling equation captures the relationship between different attributes or the behavior of the device in an abstract form.

❖ Processes

- o Systematic arrangement of doing things.
- o Algorithms, procedures, reference designs etc.
- o Objective is to get the result

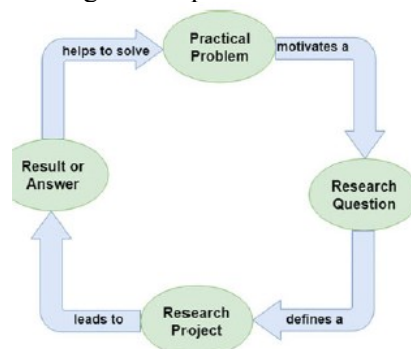


Objectives of research

To solve new and important problems.

- ❖ Concluding research outcome should be new*.
- ❖ Circumstantial evidence, intuition and imagination may lead to possible conclusion.
- ❖ Rarely, the initial targets might change.
- ❖ Some targets might be unrealisable.
- ❖ Negative results
- ❖ May lead to non target discoveries which might be new

2) Explain the research process with a neat diagram. Explain in detail about the criteria of a good research.



Research is a process of creating, or formulating knowledge that does not yet exist. Booth et al. [1] explains that the research cycle starts with basically a practical problem: one must be clear what the problem being attempted to solve is and why it is important. This problem motivates a research question without which one can tend to get lost in a giant swamp of information. The question helps one zero in onto manageable volume of information, and in turn defines a research project which is an activity or set of activities that ultimately leads to result or answer, which in turn helps to solve the practical problem that one started with in the first place as shown in Fig. above.

The building up of background for doing research includes one to acquire the ability to connect different areas. The purpose is to prepare the mind for active work as opposed to becoming a repository or an encyclopedia. Research is not just about reading a lot of books and finding a lot of, gathering a lot of existing information.

It is instead adding, maybe small and specific, yet original, contribution to that existing body of knowledge. So, research is about how one poses a question which has relevance to the world that we are living in, and while looking for that answer one has to be as systematic as one can be. There must be a balance between what is achievable in a research program with a finite endpoint and also, the contribution it is going to make. The objective of a good research program is to try and gain insight into something. Or indeed, to try and solve a problem. Good research questions develop throughout the project actually and one can even keep modifying them.

3) Discuss the effective way of searching the literature.

Scholarly publications are authored by researchers in specific fields, undergo peer review, and target experts and students in the field. While engineering researchers often refer to scholarly journals and peer-reviewed sources, useful content can also be found in popular publications for broader readership. A comprehensive search involves using various search tools and considering the type and availability of information.

A researcher should use all search tools for comprehensive search. All the information one needs will not be available at one place; one will likely need to look in all the places that would be possible. Also, all information will not be available online. Some information is only available in print. It can take time for scholarly and peer-reviewed information to be published and made available in public. The researcher should look for similar studies that would be applicable to the specific topic; look for broad information (general process, technology, etc.), as well as information that addresses the specific context of the researcher's report.

Searching is an iterative process:

- Experiment with different keywords and operators;
- Evaluate and assess results, use filters;
- Modify the search as needed; and
- When relevant articles are found, look at their citations and references.

It is very important to not lose sight of the purpose of an extensive search or literature survey, for it is possible to spend a very significant amount of one's time. The scholar needs to undertake an extensive literature survey connected with the problem. For this purpose, the archived journals and published or unpublished bibliographies are the first place to check out. One source lead to another.

4) Explain in brief any one Bibliographic database used for abstracting and indexing of research articles.

⇒ **Web of Science or Google and google scholar**

5) Write the ASCE and IEEE style of citation for a) "Engineering Research Methodology" text book written by Dipankar Deb, Rajeeb Dey and Valentina E. Balas and published by Springer Nature Singapore Pte Ltd in the year 2019. b) A research article "Intellectual property rights: An overview and implications in pharmaceutical industry" written by Chandra Nath Saha and Sanjib Bhattacharya is published in Journal of Advanced Pharmaceutical Technology and Research, in 2011 vol 2 sl.no 2 containing pages from 88 to 93.

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- a) Deb Dipankar, Dey Rajeeb and Balas Valentina E (2019), Engineering Research Methodology, Springer Nature Singapore Pte Ltd.
- b) Saha Chandra Nath and Bhattacharya Sanjib (2011), "Intellectual property rights: An overview and implications in pharmaceutical industry", Journal of Advanced Pharmaceutical Technology and Research, vol 2, no 2, pp 88 to 93.

IEEE

- c) Dipankar Deb, Rajeeb Dey and Valentina E Balas, "Engineering Research Methodology", Springer Nature Singapore Pte Ltd, 2019.
- d) Chandra Nath Saha and Sanjib Bhattacharya, "Intellectual property rights: An overview and implications in pharmaceutical industry", Journal of Advanced Pharmaceutical Technology and Research, vol 2, no 2 2011, pp 88 to 93.

6) Explain the following about design registration: (i) Design Rights (ii) Enforcement of Design Rights (iii) Protection term of Design.

⇒

i) Design Rights: Confers a monopolistic right to the Proprietor. one can legally exclude others from reproducing, manufacturing, selling, or dealing in the said registered Design without his prior consent.

(3.5M)

ii) Enforcement of Design Rights: file the infringement case in the court in case of any violation or exploitation, Enforces Rs. 50,000 penalties in case of violation of rights. (3.5M)

iii) Protection Term: The registered Designs are protected for 10 years in India and can be extended by 5 years after making a renewal application. (3M)

7) Differentiate between GI, Trademark and Traditional Knowledge.

⇒

GI identifies a product/good as originating from a specific place.

Trademark products/goods/service originate from a particular industry/institute/organization/society, etc.

A Trademark can be assigned or licensed to anyone, anywhere in the world, whereas GI is linked with a specific geographical territory.

Products identified as GI are often the result of traditional processes and knowledge carried forward by a community in a particular region from generation to generation.

Similarly, some products identified by a GI may embody characteristic elements of the traditional artistic heritage developed in a given region, known as traditional knowledge.

Tangible products, such as handicrafts, made using natural resources and having qualities derived from their geographical origin.