



Year and Program: 2018-19 M.  
Sc. I (Physics, Chemistry, Maths.)

School of Science

Department: Physics,  
Chemistry, Mathematics

Course Code : REM 501

Course Title : Research  
Methodology-I

Semester - I

Day and Date : Thursday

End Semester Examination

Time: 30 min  
10.30 am to 11.00 pm  
Max Marks: 100

PRN/Exam Seat No.:

Answer Booklet No.:

Student's Signature:

Invigilator's Sign:

Marks for section A out of 20:

**Instructions:**

- 1) All questions are compulsory.
- 2) For MCQs mark/tic (✓) for correct answer. No marks for multiple ticks(✓)
- 3) Section A should be submitted to Jr. Supervisor immediately after first 30 min
- 4) Use Blue ball pen only.

**Section A**

	Marks	Bloom's Level	CO
<b>Q.1 Tick the correct answers. (One mark each)</b>			
1) Which of the following is Not true regarding the problems faced by researchers in India	01	L1	CO2
A) Most of the researchers in India undergo scientific training in methodology of research			
B) Poor availability of literature			
C) Duplication (similar) study is being carried out			
D) Inadequate and untimely secretarial assistance			
2) -----is a way to systematically solve the research problem by adopting appropriate research method.	01	L1	CO1
A) Rationale			
B) Research Methodology			
C) Review of Literature			
D) Hypothesis			

- 3) Which of the following is **NOT** a part of Research Process? 01 L1 CO1  
 A) Hypothesis B) Research Design  
 C) Instrument Purchase D) Data Collection
- 4) Which of the following is not the Search Engine 01 L1 CO3  
 (A) Google Scholar (B) Science Direct  
 (C) Wikipedia (D) Scopus
- 5) Which of the following statement is **NOT** true about DOAJ 01 L1 CO2  
 A) DOAJ means Director Of Asian Journals  
 B) DOAJ means Directory of Open Access Journals  
 C) It is an online directory that indexes and provides access to high quality, open access, peer-reviewed journals.  
 D) It is independent. All funding is via donations.
- 6) Index of actual citations of a particular research paper is called as 01 L1 CO3  
 A) Citation B) Noting  
 C) Citation Index D) Directory
- 7) First step in research process is \_\_\_\_\_ 01 L1 CO1  
 (A) Define Research problem (B) Data analysis  
 (C) Hypothesis (D) Data collection
- 8) -----is a measure of frequency with which the average article in a journal has been cited in a particular year. 01 L1 CO3  
 A) Citation B) H-index  
 C) Citation Index D) Impact Factor
- 9) A numerical indicator to find out how productive & influential a researcher is----- 01 L1 CO3  
 A) H-index B) Google Scholar  
 C) Scopus D) Citation Index

- 10) A researcher according to Google Scholar Citations has H-index 50, it means: 01 L2 CO2
- A) That the researcher has published 50 research papers
- B) The Research papers of this researcher have been cited at least 50 times
- C) Only A is correct
- D) Both A & B are correct
- 11) Shodhganga is: 01 L1 CO3
- A) A digital repository of Indian theses and dissertations submitted to Indian universities.
- B) A digital repository of Indian and foreign theses and dissertations submitted to Indian and foreign universities.
- C) Government of India's project to clean river Ganga.
- D) Search for the origin of river Ganga.
- 12) NDL is a project under 01 L1 CO3
- A) Ministry of Human Resource Development, India
- B) INFLIBNET
- C) Government of Maharashtra
- D) National Digital Languages
- 13) Which of the following is the website to download free Audio Books: 01 L1 CO3
- A) <https://www.pdfdrive.com> B) <https://www.inflibnet.ac.in>
- C) <https://ndl.iitkgp.ac.in> D) <https://librivox.org/>
- 14) -----is one of the Inter University Centres established with the goal of addressing the needs of Higher Education through the use of powerful medium of Television. 01 L1 CO3
- A) The Consortium for Educational Communication (CEC)
- B) YouTube
- C) National Digital Library
- D) INFLIBNET

- 15) A doctor studies the relative effectiveness of two drugs of dengue fever. His research would be classified as
- A) Descriptive Survey      B) Experimental Research  
C) Case Study                D) Ethnography
- 16) 'H' from the term 'H-index' refers to the name :
- A) Edmond Hillary            B) John Hopkins  
C) Jorge E. Hirsch          D) Charles B. Hensley
- 17) A researcher has published 125 research papers which are cited by at least 125 times what would be the H index of that researcher?
- A) 100                            B) 250  
C) 200                            D) 125
- 18) What is deemed a good measure of the quality of a journal?
- A) How many researchers read that Journal  
B) The intake factor  
C) The impact factor  
D) How many researcher buy that Journal
- 19) Which of the following is a Citation Indexing Service
- A) Advances in Space Research      B) Scopus  
C) Nature Physics                        D) Nature
- 20) Research is not -----
- A) a systematic enquiry                B) an accidental discovery  
C) Scientific process                    D) universal

ESE



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Course Title: Research  
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Department : Physics,  
Chemistry, Mathematics  
Semester – I

Day and Date: Thursday  
06/06/2019

End Semester Examination  
(ESE)

Time: 2.5 hrs  
Max Marks: 100  
11.00 am to 1.30 Pm

- Instructions:
- 1) All questions are compulsory.
  - 2) Assume suitable data wherever necessary.
  - 3) Figures to the right indicate full marks.

### Section B

Q.2	Answer any Two.	Marks	Bloom's Level	CO
a)	Explain in detail, the Research Process.	12	L2	CO1
b)	Define Research and state its objectives.	12	L2	CO1
c)	Illustrate with suitable example, the difference between Research Methods and Research Methodology.	12	L2	CO1
Q3	Attempt any Two.			
a)	Explain the techniques of Selecting Research Problem.	12	L3	CO2
b)	Justify the importance of Review of Literature and explain Print and Electronic sources to conduct Review of Literature.	12	L4	CO3
c)	Illustrate with suitable example the Citation, Citation Index and Impact Factor.	12	L2	CO2
Q4	Answer any Two.			
a)	Explain H-Index with suitable example.	08	L1	CO2
b)	A journal published 680 articles in 2016, 880 articles in 2017, out of which 200 articles in 2016 and 250 articles in 2017 were cited. Calculate the impact factor of the journal. Write step-by-step answer.	08	L3	CO2
c)	List names of any four research journals related to your subject. Write names of editor and scope of any one of the journals.	08	L1	CO2

**ESE**

Q5 Write short notes on any four.

a) H index	04	L1	CO2
b) Research Problem	04	L1	CO2
c) Criteria of Good Research	04	L2	CO1
d) Problems Encountered by Researchers in India	04	L2	CO1
e) Types of Research	04	L2	CO1

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