

GURU NANAK INSTITUTE OF TECHNOLOGY
An Autonomous Institute under MAKAUT
2020-2021
Teaching and Research Methodologies
PGCSE301B

TIME ALLOTTED: 3 HOURS

FULL MARKS: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable

GROUP – A

(Multiple Choice Type Questions)

Answer any *ten* from the following, choosing the correct alternative of each question: **10×1=10**

	Marks	CO No.
1. i. Which one of the following is not characteristic of good question paper? a) Objectivity b) Subjectivity c) No use of vague words d) Reliable.	1	CO1
ii. One of the essential character of research is. a) Reliability b) Generalizability. c) Usability d) Objectivity.	1	CO1
iii. The govt. of India conducts sensor after every ten years., the method of research used in this process is a) CASE study b) Survey. c) Development. d) Experimental.	1	CO3
iv. What type of test is the most effective when trying to test memorization? a) True/False b) Multiple choices c) Fill in the blanks. d) Both b and c	1	CO2
v. All teacher should have a good_____ when they go into the class room. a) Plan. b) Choice. c) Attitude. d) Class.	1	CO3
vi. A good qualitative problem statements..... a) Defines the independent and dependent variables b) Conveys a sense of emerging design. c) Specify a research hypothesis to be tested. d) Specify the relationship between variables that the researcher expected to find.	1	CO4
vii. The statement of purpose in a research study should a) identify the design of the study b) identify the intent of objective of the study c) specify the type pf people to be used in the study d) describe the study	1	CO5
viii. Hypothesis test may also be called as: a) Informal test b) Significance test c) Moderating test d) T-test	1	CO3

ix.	Researcher would generally expected to		
	a) Study existing literature in a field		
	b) Generate new principal and theories	1	CO3
	c) Synthesis the idea given by others		
	d) Evaluate the finding of a study.		
x.	An academic association assembled at one place to discuss the progress of its work and future plan such an assemble is known as		
	a) Conference	1	CO4
	b) Seminar		
	c) Workshop		
	d) Symposium		
xi.	What is the first stage of a systematic review?		
	a) Assess the relevance of each study to the research question(s)		
	b) Define the purpose and scope of the review	1	CO4
	c) Appraise the quality of studies from the previous step		
	d) Survey all of the literature contained within a single library		
xii.	The large samples used in national social surveys enable new researchers to:		
	a) Avoid using probability sampling		
	b) Identify any bias in the question wording	1	CO5
	c) Evaluate the inter-coder reliability of the data		
	d) Conduct subgroup analysis		

GROUP – B**(Short Answer Type Questions)**Answer any *three* from the following: $3 \times 5 = 15$

		Marks	CO No
2.	List some important criteria of a good research problem.	5	CO2
3.	List the important techniques of class room management.	5	CO2
4.	State difference between assessment and evaluation.	5	CO3
5.	Define grading and reporting.	5	CO3
6.	Explain benchmark testing.	5	CO4

GROUP – C***(Long Answer Type Questions)**Answer any *three* from the following: $3 \times 15 = 45$

		Marks	CO No.
7.	a. Difference between action research and fundamental research.	5	CO4
	b. What do you understand by the research proposal?	5	CO1
	c. Give the structure of research proposal.	5	CO2
8.	a. Explain Blooms Taxonomy.	5	CO4
	b. Differentiate between cognitive domain and affective domain.	5	CO3
	c. What are the sequence of learning?	5	CO1
9.	a. Define the term research.	3	CO2
	b. Give the characteristic of research.	4	CO3
	c. Explain various types of design.	8	CO4
10.	a. Suppose you want to initiate your Ph.D. work after completing M. Tech. Draw a block diagram with different phases of your Ph.D. work.	5	CO5
	b. Explain each phase for the above thoroughly.	10	CO5

11. a. **Module X:**
Performance Enhancement of Processor by Pipelining: Basic idea to enhance the performance of a processor, Concept of Pipelining, Pipeline performance, various hazards in pipeline, methods to solve the hazards. Pipeline performance measurement parameters- speedup, efficiency, throughput, classification of pipeline processor, Pipeline structure of CPU, examples from design of arithmetic pipeline- floating point adder, multiplier. Multifunction pipeline, reservation table, Dynamic pipeline, pipeline latency. (12L)
Use Bloom's Taxonomy to design Course objectives and course outcomes for the above mentioned module X. 8 CO4
- b. Give the lesson plan for the Module X in Q.No. 11 and design a unit test question paper based on only CO1 and CO2 (BT1 and BT2) for Module X. 7 CO5