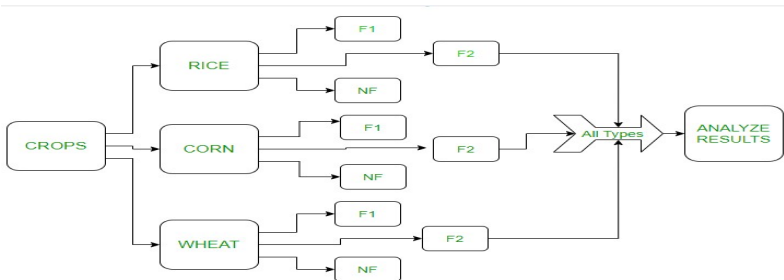


TERM : 03/10/2024 to 25/01/2025	COURSE NAME: Research Methodology and Intellectual Property Rights (RM & IPR)
DATE : 29-11-2024 TIME: 3:00 to 04:00 PM	COURSE CODE : AL58
MAX MARKS: 30 Semester: 5 th .	PORTIONS : L1 to L14

Scheme and Solution for CIE-1 (Common to all branches)

Q.No.			CO's	Marks
1.	a)	Scheme: Listing types of Research: 2 Marks, Brief explanation : 4 Marks. i. Descriptive vs. Analytical ii. Applied vs. Fundamental ii. Quantitative vs. Qualitative iv. Conceptual vs. Empirical	CO1	(6)
	b)	Scheme: Each definition carries 1 Mark. Dependent variable: variable affected by change in independent variable. Independent variable: The variable the researcher changes. Extraneous variable: An extraneous variable is a factor that can affect the results of a study but is not being investigated. Continuous variable: can take continuous data on any value in a certain range. Discrete variable: can hold discrete data on certain individual values.	CO2	(5)
	c)	Scheme: Any 3 points describing the difference between Engineering research (ER) vs. research in other fields. Purpose: ER: Focus is to solve real world problems, developing tools and techniques. <ul style="list-style-type: none"> Aim is to advance knowledge or explore societal issues. Nature: ER: Applied or problem driven <ul style="list-style-type: none"> Theoretical or exploratory Time: ER: Time Sensitive due to market or competition. <ul style="list-style-type: none"> Have long time horizons. Note: Any other valid points can be considered.	CO1	(4)
2.	a)	Scheme: Importance of ethics: 1 mark, key considerations: 5 Marks. Importance: Provides guidelines for the responsible conduct of research Some ethical principles are Honesty, Objectivity , Integrity, Carefulness, Openness, Respect for Intellectual Property, Confidentiality	CO1	(6)
	b)	Scheme: To write all possible combinations each carries 0.5 Marks. <ul style="list-style-type: none"> CBT, short duration, male CBT, short duration, female CBT, long duration, male CBT, long duration, female Psychodynamic, short duration, male Psychodynamic, short duration, female Psychodynamic, long duration, male Psychodynamic, long duration, female Humanistic, short duration, male Humanistic, short duration, female 	CO2	(6)

		<ul style="list-style-type: none"> Humanistic, long duration, male Humanistic, long duration, female 		
	c)	<p>Scheme: Any 3 valid points regarding framing of title to projects / paper.</p> <ul style="list-style-type: none"> A good title is informative, represents a paper/project effectively to readers, and gains their attention. There are three different aspects which provide a particular behavior to the title: <ul style="list-style-type: none"> length of the title. presence of specific markers. 	CO1	(3)
3.	a)	<p>Scheme: Listing and explain in brief (2 + 4 Marks)</p> <p>There are three main functions of citation:</p> <p><u>Verification function:</u> Citation offers the readers a chance to ascertain if the original source is justified or not, and if that assertion is properly described in the present work.</p> <p><u>Acknowledgment function:</u> Researchers primarily receive credit for their work through citations. Citations play crucial role in promotion of individual researchers and their continued employment.</p> <p><u>Documentation function:</u> Citations are also used to document scientific concepts and historical progress of any particular technology over the years.</p>	CO1	(6)
	b)	<p>Scheme: Explaining Randomized Block Design – 2 Marks.</p> <p>Neat Sketch RBD for the given scenario: 4 Marks.</p> <p>Randomized Block Design (RBD) is an experimental design that involves grouping experimental units into blocks based on certain characteristics or factors that are expected to affect the outcome of the experiment. Within each block, treatments are assigned randomly to minimize the impact of variability between blocks.</p>  <p>Figure 1: RBD for three crops and three fertilizers.</p>	CO2	(6)
	c)	<p>Any three valid points to compare critical vs creative reading</p> <p>Critical Reading: To evaluate and analyze the content, arguments, and evidence critically and Approach is Logical, systematic, and objective.</p> <p>Creative Reading: To explore new ideas, perspectives and Approach is Intuitive, open-ended, and imaginative.</p>	CO1	(3)