K. K. Wagh Institute of Engineering Education and Research, Nashik

(An Autonomous Institute from A. Y. 2022-23)

End-Sem Examination- Winter 2023

Exam Seat No.										

Academic Year: 2025-2026	**Semester: III**
Name of Programme: MBA	**Pattern: 2024**
Name of Course: Marketing Research	**Course Code: 2410612A**
Max. Marks: 60	**Duration: 2:30Hr.**

Instructions: Candidates should read carefully the instructions printed on the Question Paper and on the cover page of the Answer Book, which is provided for their use.

1. This question paper contains _____page(s).
2. Answer to each new question is to be started on a new page.
3. Assume suitable data wherever required, but justify it.
4. Draw the neat labelled diagrams, wherever necessary.
5. The last columns indicates the Course Outcome and level of Blooms Taxonomy of the Question/sub-question

Q. No.	Details
Q.1	Apply the knowledge of Hypothesis testing to find out type of test (One tailed or Two tailed), Z test or T test and also write the required test statistics while solving below problems. 1) Test whether the placement given by the ABC college is 90% or not, if 120 students out of 150 got the placement in current year. 2) Test whether the particular medicine is effective in decreasing the BP level or not if the data of 25 people is collected for the study. **Per question: 3 (Type of test: 1, Z or T:1, Hypothesis: 1)**
Q.2	Explain Semantic differential scales **Each type : 3 Marks**
Q.3	a) Explain Regression Analysis with the example. **Explanation: 3 Marks** **Example: 3 marks** **Assumption : 2 Marks** **OR** b) Explain Factor Analysis with the example.

	Explanation: 3 Marks **Example: 3 marks** **Assumption : 2 Marks**
	c) Suppose you are doing one research on quality of education in Nashik and you are going to collect samples from different schools. So, prepare questioner for your research with 12 questions in it. **Each 3-right question: 2 marks** **OR** d) Suppose you are doing one research on impact of noise pollution on small children's health and you are going to collect samples from different schools. So, prepare questioner for your research with 12 questions in it. **Each 3-right question: 2 marks**
Q.4	a) K K Wagh college wants select college GS from the students. For that college demands nomination list form MBA, Chemical, E&TC, Chemical and Civil department. College got list of 6 students from each department. Now college wants to draw random sample of 5 students for further analysis. Draw 5 students using below methods. (Write down sample points for each method). 1) SRSWOR 2) Systematic Sampling 3) Cluster sampling 4) Stratified sampling **Each Method: 2 Marks** **OR** b) Government of India wants to check whether new GST rates are beneficial or not. For that Government sends team of members to collect the sample from Mumbai, Nashik, Satara, Belgaum, Pune and Hydrabad locations. Government got 10 samples from each of the place. Now draw 12 samples using below methods. (Write down sample points for each method). 1) SRSWR 2) Systematic Sampling 3) Cluster sampling 4) Stratified sampling **Each Method: 2 Marks**

c) Explain Type I Error and Type II error with the help of an example.

Each Type: 4 Marks

OR

d) Explain correlation coefficient with the help of an example.

Explanation: 2 Marks
Example: 2 Marks
Types: 4 Marks

Q.5

a) Production manager claims that 6% of their mangoes are rotten. From the sample of 500 mangoes 400 mangoes are of good quality. Test whether the claim made by manager is right or wrong at 95% level of significance.

$Z_{95\%} = 1.96$

Hypothesis:1 Mark
Type of test: 1 Mark
T or Z: 1 Mark
Test statistics: 2 marks
Calculation: 2 Marks
Conclusion: 1 Mark

OR

b) A coin is tossed 1000 times and it turns up tail 600 times. Discuss at 5% level whether the coin is unbiased or not.
$Z_{95\%} = 1.96$

Hypothesis:1 Mark
Type of test: 1 Mark
T or Z: 1 Mark
Test statistics: 2 marks
Calculation: 2 Marks
Conclusion: 1 Mark

c) Find out rank correlation for below data.

Sr No	Maths	Statistics
1	15	25
2	18	20
3	25	18

4	**20**	**20**
5	**15**	**25**
6	**18**	**16**

Rank: 1 Mark
Dsquare: 2 Marks
Formula: 1 Mark
Factor: 1 Mark
Calculation: 2 Marks
Conclusion: 1 Mark

OR

d) Find out the value of Y if X = 15 using below information using regression analysis.

Sr No	X	Y
1	5	10
2	9	15
3	8	18
4	10	20
5	2	5
6	15	?

Formula: 1 Mark
Xbar: 1 mark
Ybar: 1 Mark
XY: 1 Mark
Calculation: 2 Marks
Conclusion: 2 Marks