

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST -1 EXAMINATION- 2026

B.Tech-V Semester (CSE/IT)

COURSE CODE (CREDITS): 25B1WCI534 (2)

MAX. MARKS: 15

COURSE NAME: Data Mining & Data Warehousing

COURSE INSTRUCTOR: Prof. Pardeep & Dr. Ekta

MAX. TIME: 1 Hour

Note: (a) All questions are compulsory.

(b) The candidate is allowed to make Suitable numeric assumptions wherever required for solving problems

(c) Use of calculator is allowed

(d) Students are required to write detailed answer of questions

Q.No	Question	CO	Marks																																				
Q1	Suppose we are interested in analyzing customer transactions at AllElectronics company with respect to the purchase of computer games and videos. Of the 10,000 transactions analyzed, the data show that 6000 of the customer transactions included computer games, while 7500 included videos, and 4000 included both computer games and videos. (i) Compute the chi square statistical value (ii) Show acceptance or rejection of the hypothesis that your identified attributes are "independent". The value of chi square critical is 10.8 for level of significance 0.05 at your calculated degree of freedom	1	3+1																																				
Q2	A hospital uses a diagnostic system to compare patients based on the presence (1) or absence (0) of medical symptoms. <table border="1"> <thead> <tr> <th>Symptom</th><th>Patient A</th><th>Patient B</th><th>Patient C</th></tr> </thead> <tbody> <tr> <td>Fever</td><td>1</td><td>1</td><td>0</td></tr> <tr> <td>Cough</td><td>1</td><td>0</td><td>1</td></tr> <tr> <td>Headache</td><td>0</td><td>1</td><td>1</td></tr> <tr> <td>Fatigue</td><td>1</td><td>1</td><td>1</td></tr> <tr> <td>Nausea</td><td>0</td><td>0</td><td>1</td></tr> <tr> <td>Shortness of breath</td><td>1</td><td>0</td><td>1</td></tr> <tr> <td>Chest pain</td><td>0</td><td>1</td><td>0</td></tr> <tr> <td>Vomiting</td><td>0</td><td>0</td><td>1</td></tr> </tbody> </table> Which of the patients have more likely to have a similar disease?	Symptom	Patient A	Patient B	Patient C	Fever	1	1	0	Cough	1	0	1	Headache	0	1	1	Fatigue	1	1	1	Nausea	0	0	1	Shortness of breath	1	0	1	Chest pain	0	1	0	Vomiting	0	0	1	1	3
Symptom	Patient A	Patient B	Patient C																																				
Fever	1	1	0																																				
Cough	1	0	1																																				
Headache	0	1	1																																				
Fatigue	1	1	1																																				
Nausea	0	0	1																																				
Shortness of breath	1	0	1																																				
Chest pain	0	1	0																																				
Vomiting	0	0	1																																				

74