

CCT TEST ITEM

CLASS	XII
SUBJECT	MATHEMATICS
Name of the Teacher	SUDHANSHU KUMAR SINGH RAI
Name of the Topic/Chapter	PROBABILITY

In a survey at Vande Bharat Train, IRCTC asked passengers to rate and review the food served in train. IRCTC asked 500 passengers selected at random to rate food according to price (low, medium or high) and food (1,2,3 or 4 stars). The results of this survey are presented in the two-way, or contingency, table given below. The numbers in this table represent frequencies.

Price/Rating	*	**	***	****	Total
Low	20	30	90	10	150
Medium	50	80	90	30	250
High	20	10	30	40	100
Total	90	120	210	80	500



Based on the above information, answer the following questions:

Q.1.	The probability that the passenger rates the prices medium is: (a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{1}{4}$ (d) $\frac{1}{5}$
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Answer	(a) $\frac{1}{2}$
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Q.2.	The probability that the passenger rates the food 2 stars is: (a) $\frac{9}{50}$ (b) $\frac{21}{50}$ (c) $\frac{6}{25}$ (d) $\frac{4}{25}$
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Answer	(c) $\frac{6}{25}$
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Q.3.	Suppose that the passenger selected, rates the price high, What is the probability that he rates the food 1 star? (a) $\frac{1}{2}$ (b) $\frac{1}{3}$ (c) $\frac{1}{4}$ (d) $\frac{1}{5}$
Answer	(d) $\frac{1}{5}$
Q.4.	Suppose that the passenger selected does not rate the food 4 stars, what is the probability that she rates the price high? (a) $\frac{1}{3}$ (b) $\frac{1}{7}$ (c) $\frac{1}{6}$ (d) $\frac{1}{9}$
Answer	(b) $\frac{1}{7}$