

Q1) What is the overall survival rate?

Answer- **38.38%**

Q2) What is the survival rate by gender?

Answer- Female – **74.20%** whereas Male – **18.89%**

Q3) What is the survival rate by passenger class?

Answer- Passenger class 1 – **62.96%**, Passenger class 2 – **47.28%**, Passenger class 3 – **24.23%**

Q4) What is the age distribution of passengers?

Answer- Maximum passengers were in the age group of **20 – 30**.

Q5) What is the average fare paid per class?

Answer- Passenger class 1 – **84.15**, Passenger class 2 – **20.66**, Passenger class 3 – **13.67**

Q6) How many persons have missing age or cabin information?

Answer- Age – **177**, Cabin – **687**

Q7) Did having family on-board affect survival?

Answer- Small to medium family size (**1 – 3**) likely stayed together and helped each other during evacuation so their survival rate was **72.41%** while those who were travelling **alone** may have lacked support so their survival rate was **30.35%** and large families like (**7 – 10**) may have struggled to stay together or find enough space on lifeboats so their survival rate was **0.00%**.

Q8) What is the survival rate from different embarkation ports?

Answer- Cherbourg – **55.35%**, Queenstown – **38.96%**, Southampton – **33.69%**

Q9) What is the survival rate by age group?

Answer- Child – **57.97%**, Teen – **38.18%**, Adult - **39.74%**, Middle-aged – **39.06%**, Senior – **22.72%**

Q10) Is there a correlation between fare and survival?

Answer – Yes, as the **fare increases**, the **chances of survival** also tend to **increase slightly**, as higher-fare passengers were more likely to be in first class.

Q11) Who were the top 5 passengers who paid the highest fare?

Answer- 1. Ward, Miss. Anna,

2. Lesurer, Mr. Gustave J,

3. Cardeza, Mr. Thomas Drake Martinez,

4. Fortune, Miss. Mabel Helen,

5. Fortune, Mr. Charles Alexander

Q12) Did children below 12 years of age have higher survival rates than adults?

Answer- Yes children below 12 years of age had higher survival rate which was **57.35%** as there was “women and children first” evacuation policy.

Q13) Compare survival rates of male vs females by class?

Answer- Females had very high survival rates, especially in 1<sup>st</sup> and 2<sup>nd</sup> class which was **96.81%** and 92.11% respectively, whereas males in the 3<sup>rd</sup> class had very low survival rate that is only **13.54%**.

Q14) How does fare vary embarkation ports?

Answer- Passengers from Cherbourg paid the highest average fares and also had the highest maximum fare **512.33**. This suggests more wealthy or 1st-class passengers boarded there. Queenstown had the lowest fares, with most fares around **7–15**. This likely included mostly 3rd-class passengers. Southampton had moderate fares on average, but it was the most common port with **644** passengers.

Q15) Did older passengers tend to pay more fare?

Answer- The correlation coefficient between **Age** and **Fare** is **0.096**, which is **very close to 0**. This means there is **very weak or almost no linear relationship** between a passenger’s age and the fare they paid.