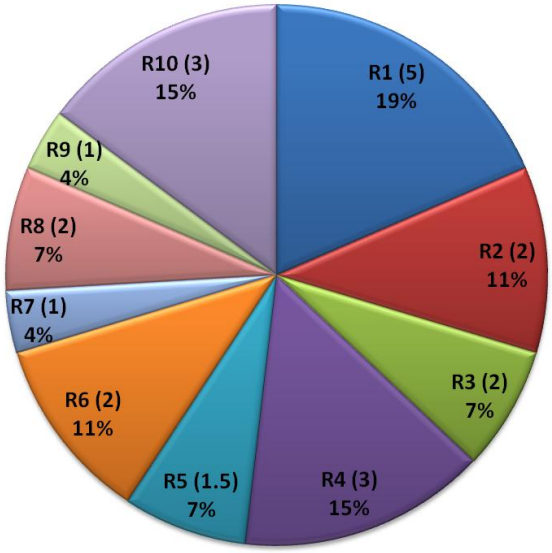
Question 1 (10 marks)*[Do not spend more than 30 minutes on this question]:*

Consider the pie-chart given below.

- *R1* to *R10* are ten user stories which have been ordered in decreasing order of priority.
- The value in parenthesis () beside each *R-i* denotes the number of weeks required to deliver that user story in the product.
- The % values associated with each *R-i* denotes the fraction of total points associated with that user story.
- Assume that you can only select user stories for sprints in decreasing order of priority, i.e., *R-i+1* cannot be implemented before *R-i.*
- Assume the user stories are implemented sequentially, i.e., if *R1* and *R2* are implemented in one sprint, then the time taken will be 5 (for *R1*) + 2 (for *R2*) = 7 weeks.



If the total points associated with all the 10 user stories combined be **'X'**, and the sprint duration be 5 weeks, then what is the average sprint velocity (mention the proper unit for your answer)?

[**X** is the last 3 digits of your roll number. For example, if Roll No = 201951004, then X = 004 = 4.]

Question 2 (5 marks)*[You should spend 30 minutes on this question]:*

Discuss the Chernobyl Nuclear Power Plant Disaster with respect to System Dependability. You can refer online videos or resources if you want. Note the following carefully:

- DO NOT explain why or how the disaster happened in terms of chemical / nuclear reactions.
- You NEED to correlate as many concepts taught in Chapters 10-12 (of your course) as possible to explain the broad reason why the disaster happened. Also mention what you learn about System Dependability from this case study.
- Exact same language and content in the answers (obtained by unethical means) will be marked as ZERO.