Class Test 02(A): CSI 207- Algorithms, Fall 2019
Total Marks: 20, Time: 25 minutes

Name: ID:

UAP CSE dept has decided to send different teams (consisting of teachers and TAs) to visit some school and colleges of Dhaka city and invite the principle and the students to join the "Hardware and Software Carnival 2020". The principles of different school have given the following time for meeting. Find the minimum numbers of teams required to visit all the listed school and invite them. What classic problem this scenario/problem maps to? Write down the algorithm and simulate the result with following data.

	NDCC	DRM	VNSC	BNMPC	BMARPC	Govt. Lab	SSC	ML	Moh. Prep	HSC
Start time	8:00	8:30	9:00	9:30	10:00	10:00	11:30	11:30	11:30	12:00
End time	9:00	9:00	10:00	11:00	11:00	11:30	12:00	12:30	1:30	1:00

Class Test 02(B): CSI 207- Algorithms, Fall 2019
Total Marks: 20, Time: 25 minutes

Name: ID:

Students of UAP CSE department have organized a study tour this year. The first stop of the tour is Chittagong. You have been selected to buy train tickets for all the students. Your teacher has asked you to reserve minimum number of cabins is such a way so that none of your cabins has any outsider in it. There are different size cabins e.g. 10, 8, 4, 2 passengers and you have to buy 16 tickets. Decide what classic problem this scenario/problem maps to. Write down the algorithm and simulate the steps to find the result.

Class Test 02(C): CSI 207- Algorithms, Fall 2019
Total Marks: 20, Time: 25 minutes

Name: ID:

One of your friends is suffering from a rare disease and you are thinking of collecting some money for your friend. You just heard the news that Students of UAP CSE will organize a pitha utshob this week. You are planning to attend the utshob and donate all the money from your pitha sale to your friend. You will make total 15 pithas and sell them in small packets of 1, 2, 3, 4, etc. Packet price will depend on number of pithas (listed in the table below). Determine how to make the packets so that you can raise the most money for your friend. What classic problem this scenario/problem maps to? Write the algorithm and simulate the result.

Pith Count	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Price	10	22	35	40	55	64	70	88	92	100	111	120	135	145	150