

Roll No: 103117086 (Sec B)

Name: Sarishma Bhandari

Q) List factors to be considered while developing UTS.

Answer- UTS stand for Urban Transportation System. It is defined as a system consisting of different modes of transportation in an urban area, such as roadways, railways, airways, waterways etc which improves the connectivity and accessibility in an urban area. There are many factors to be considered while developing UTS. Some of them are;

- a) **Present and future estimation of population:** Population plays a major role in developing any infrastructure in an area. Since a capacity required is what determines the most suitable mode of transportation for an area, population forecasting technique will provide engineers for the best possible solution. For instance, railways can carry huge number of passengers in comparison to roadways.
- b) **Economy:** Another major factor influencing any project is the allocated budget. Airways, Railways have huge budget in comparison to Roadways. There has to be different plans, maybe having different routes and facilities. These plans are evaluated and their feasibility is studied. If it lies within the budget it can be ready for implementation.
- c) **Safety:** Safety is the major focus in building any type of infrastructure nowadays. Since disasters cannot be stopped, there should be enough facilities provided when it occurs. For example, in waterways the waves fluctuates frequently so the breakwaters should be provided along the area which faces the most violent waves, wharves and quays should be constructed to withstand the water forces, and a proper warning signal to warn workers and travellers about the prior danger that may occur.
- d) **Speed:** In today's world time is money. Everything needs to be on time. Speed of transportation is therefore very significant in urban area. The materials have to be transported on time; officers need to be in office on time. If there are many obstructions in an area, for instance traffic congestion, accidents then the travelling time becomes more. Consequently there is a chain of delays which will affect the economy. Therefore developing UTS requires analyzing the traffic characteristics data and using the proper mode for faster transportation.
- e) **Accessibility:** The UTS system should be developed in such a way that one can reach out to all the commercial and residential areas easily by using different modes. There should be a proper mixing of transportation modes, meaning, the railway station or an airport should be easily accessible by roads, the bus station should be nearer to residential areas, railways should be provided nearer the warehouses and transit sheds etc.

(Without considering the first three lines, number of words is equal to 405)

