Characteristics of an Urban Settlement

- An urban settlement is mainly a built-up area.
- There are many tall buildings with little open space.
- The natural landscape is almost totally modified into a cultural landscape.
- Urban land use is intensive.
- There is keen land use competition.
- The land rent is the high.
- An urban settlement has a large population size and a high population density.
- Urban dwellers have a higher living standard.
- Secondary and tertiary activities are dominant.
- An urban settlement performs many functions, e.g. commercial, industrial, administrative functions.
- An urban settlement has a hinterland which it serves and is served.
- The hinterland provides food and raw materials to the urban settlement.
- The hinterland provides a big market for the urban settlement.

Factors Leading To urbanisation

- Natural increase: There is urban growth when there is natural increase in the urban population.
- Rural-urban migration
- There are better job opportunities.
- higher income and higher living standard.
- There are better educational and medical facilities.

Causes of Expansion Of Urbanization

- There is great demand for land at the city centre, but the supply is limited.
- Taller buildings accommodate the growing population.
- There is technological advances.
- Urban planning
- New town development alleviate congestion in the city centre.
Improved transport network enables the city area to expand outwards.

Urbanisation started in the late 18th century during the Industrial Revolution. The main causes are the pull factors, e.g. industrial development provides employment opportunities. The level of urbanisation is high, e.g. over 70%. However, the rate of urbanisation now slows down or even declines because suburbanisation occurs.

**Urbanisation in developing countries**

1. Urbanisation started in the 20th century.
2. The main causes are the push factors, e.g. debt, crop failure, civil war.
3. The level of urbanisation is low, e.g. below 30%.
4. However, the rate of urbanisation in developing countries is faster.
5. Urban problems are more serious, esp. large primate cities.
   a. The urban growth is too fast and the governments cannot build enough houses, schools, etc.
   b. The lack of housing results in the growth of slum and squatter area.
   c. The lack of medical services, water and power supply results in poor sanitation.
   d. The lack of roads and public transport results in serious traffic congestion.
   e. The lack of industries and jobs results in unemployment and poverty.

**The distribution of major urban centres in the world**

1. Most big cities are found on lowland with good accessibility, e.g. road, railway or water transport.
2. Most big cities are found in coastal locations, at route focus, river confluence or mountain gap.
3. Most big cities are well-linked with its hinterland.
4. Most big cities are found in mid-latitudes (between 60°N and 40°S) with mild climate.
5. Most big cities are found in the Northern Hemisphere. There are few large cities in Africa and Australasia.
6. In the past, there are more big cities are in developed countries.
7. In recent decades, the largest cities are increasingly found in developing countries.

6 The distribution of major belts of urban centres in the world
8 Factors affecting the distribution of urban land use zones

8-1 Competition for location and space

1. All land uses compete for the sites at the city centre where
   a. the accessibility is the best, and
   b. sites are in limited supply.
2. There is keen land use competition among different land uses.
   a. The city centre has the highest land rent (land value).
   b. Land rent declines with increasing distance from the city centre.
3. Commercial land use can bid a very high rent for a central location because
   a. it has high economic return,
   b. it requires less space.
4. Industrial and residential land uses can bid a lower rent because
   a. they have low economic returns,
   b. they require more space.
5. Each land use has its own bid rent curve which shows the land rents it affords to pay.
   a. Commercial land use has a steep bid rent curve.
   b. Industrial and residential land uses have gentle bid rent curves.
6. The land use which affords to pay the highest land rent will outbid other land uses.
   a. Commercial land use has the highest rent-paying ability and occupies the city centre.
   b. Industrial and residential land uses have lower rent-paying abilities and are located further away.
7. A concentric pattern of land use is formed. However, in reality
   a. Places along or at the intersections of major roads have better accessibility.
   b. Such places form minor peaks and ridges in the land-value surface.

8-2 Historical factors
1. A certain type of land use is located in a particular area because it has a long history of development.
2. Many mixed land use zones exist because there was no urban planning in the past.
3. Geographical inertia is the tendency of activities to remain in an existing location after the locational factors no longer exist.

8-3 Institutional factors

1. The government influences urban land use through urban planning.
2. Urban renewal and new town development are planned by the government.
3. Land use zoning reduces conflicts among different land uses.

8-4 Social values and perception

1. Differences in race, religion and socio-economic status lead to social segregation.
2. These create high-class and low-class residential zones.

9 Urban land use models - Generalisation of urban land uses

9-1 The concentric model (Burgess, 1923)

1. Cities grow radially outward away from a single centre.
2. Different land uses are distributed like concentric rings around the city centre.
3. They are: CBD, zone in transition, low-class residential zone, middle-class residential zone, high-class residential zone.

9-2 The sector model (Hoyt, 1939)

1. All land uses except the CBD form sectors around the city centre.
2. The land use zones are influenced by radial transport routes.
3. High-rental and low-rental areas repel one another.

9-3 The multiple-nuclei model (Harris and Ullman, 1945)

1. Apart from the CBD, there are several separated, secondary centres.
2. Certain functions require specialised facilities or sites, e.g. a port district needs a suitable waterfront.
3. Similar functions may group together for agglomeration economies.

10 The major urban land use patterns in Hong Kong

1. The sectoral pattern is confined to the inner urban areas, e.g.
   a. the radial transport from Tsim Sha Tsui on Kowloon Peninsula, and
   b. the east-west coastal development and the transport network on Hong Kong Island, which is affected by the hills.
2. The concentric pattern is predominant in the public housing estates in the peripheral areas, e.g. New Kowloon.
   a. The age of the population and household size vary concentrically with distance from the city centre.
   b. A younger population with smaller families dominates the outer areas.
3. The multiple-nuclei pattern reflects the location of higher-income group, due to social segregation.
   a. Living in a well-defined prestige area gives the affluent residents of the a higher status.
   b. They would not distribute in a ring because of difficulty of interaction with people of their own class.

Urban Settlements 3 - Function of Urban Centres

11 Central Place Theory

1. A central place is an urban settlement providing goods and services.
2. The threshold population of a function is the minimum market size necessary for the function to be profitable.
3. The range of goods is the maximum distance that the consumers will travel to buy those goods or services.
4. Suppliers selling different goods will locate together in central places for the convenience of customers.
5. The lower the threshold, the greater the number of central places that will sell the good.
   a. Goods with high thresholds are called high order goods (e.g. furs and expensive jewellery).
b. Goods with low thresholds are called low order goods (e.g. bread and newspaper).

6. A high order central place (large urban centre) usually provides
   a. more functions and
   b. a larger range of functions (both high order and low order goods).

7. A low order central place (small urban centre) usually provides
   a. fewer functions and
   b. a smaller range of functions (low order goods only).

12 Canberra as an example of a city with a dominant function: administration

12-1 Background

1. Canberra is the capital of Australia.
   a. The Commonwealth of Australia is formed in 1901.
   b. A national capital was needed as the centre of government and administration.
   c. There was rivalry between the two largest cities in Australia - Sydney and Melbourne.
   d. It was decided to build a capital at Canberra, a small inland settlement between Sydney and Melbourne.
2. In 1911, an area of 2360 km$^2$ was bought from New South Wales, forming the Australian Capital Territory (ACT).
3. An international competition was held to design the new city.
   a. It was won by an American architect Burley Griffin.
   b. Canberra did not completely develop until late 1957 because it lacked finance and because of the two World Wars.

12-2 The site of Canberra

1. Canberra is built on an undulating plain which was easy to develop.
2. Canberra is located on the Eastern Highlands, over 550 m above sea level.
3. River Molonglo divides Canberra into two halves.

12-3 The situation of Canberra

1. Canberra has a warm temperate climate with sunny weather.
2. Canberra is located near the densely populated SE Australia.
3. Canberra is not centrally located in Australia but is the centre of population concentration and economic development.
   a. Canberra lies midway between Sydney and Melbourne. The rivalry between Sydney and Melbourne was solved.
   b. Canberra lies midway between the agricultural hinterland of Murray-Darling Basin and the industrial SE coast.

12-4 Canberra as a planned city

1. Canberra is divided into distinctive functional zones.
   a. Different zones are separated by the main avenues.
   b. Administrative land use is around Capital Hill.
   c. A large amount of land is used for educational purposes.
   d. Industrial land use is limited and is located far away from the city centre to avoid pollution.
2. Canberra is a garden city.
   a. There is ample open space, e.g. parks and gardens, which provide a good living environment.
   b. An artificial lake (Lake Burley Griffin) is formed by building a dam across River Molonglo.
3. There is a regular road pattern, both radial and concentric, to make transport convenient.
4. Self-contained new towns are developed to prevent urban sprawl.

12-5 The functions of Canberra

1. Canberra is the Federal Capital of Australia.
   a. Administrative functions, e.g. Parliament House, High Court.
   b. Educational functions, e.g. the Australian National University.
   c. Cultural functions, e.g. the National Library.
   d. Tourist functions, e.g. hotels.
2. Administrative function is the most dominant function.
3. Commercial and industrial functions are limited.
4. Employment structure of Canberra in 1985
   a. Administrative work 33 %
   b. Commercial activities 13 %
   c. Manufacturing activities 8 %
13 Shanghai as an example of a city with multi-functions

13-1 Background

1. Shanghai is the largest city in China.
2. Shanghai has a long history of development.
3. Before 1949
   a. Shanghai was a treaty port opened up to foreign trade under the Treaty of Nanjing in 1842.
   b. Textile industries started to develop in the early 20th century.
   c. Shanghai was a world trading and financial centre in the 1930s.
4. After 1949
   a. Foreign trade decreased after 1949.
   b. Heavy industry has intensified although light industry is still predominant.
5. In recent years
   a. The open door policy attracts many foreign companies and banks.
   b. There is a revival of its role as a financial centre.

13-2 The site of Shanghai

1. Shanghai was built on extensive flatland on a flat deltaic plain.
2. Physical problem for the development of Shanghai
   a. Shanghai's port development is hindered by the silting problem of Huangpu Jiang.
   b. Huangpu Jiang carries a large amount of load which is deposited on the river bed.
   c. The river channel is too shallow for large ocean-going vessels.
   d. Constant dredging is needed to prevent silting.

13-3 The situation of Shanghai

1. Shanghai is at the mid-point on the coastline of eastern China.
   a. Shanghai is located on the major shipping routes.
   b. Shanghai has cheap and easy sea transport.
2. Shanghai is situated on Huangpu Jiang at the mouth of Chang Jiang.
   a. Shanghai controls the entrance to Chang Jiang Basin.
   b. Shanghai is a communication focus with cheap and easy sea, river and railways transport.
3. Shanghai is at the centre of the densely-populated eastern coast with abundant labour supply.
4. Shanghai obtains raw materials and power from its hinterland, e.g.
   a. Oil from Lanzhou, Daqing and offshore oil-fields along the continental shelf of Huang Hai.
   b. Iron ore from Daye, Ma'anshan, Australia and Brazil.
   c. Coal from Taiyuan and Huainan.
   d. Cotton and silk from Sichuan, central and lower Chang Jiang Basin.

13-4 The functions of Shanghai

1. Industrial functions
   a. Shanghai is the largest industrial centre in China.
   b. Light industries include textile, garment, electronics, printing.
   c. Heavy industries include iron and steel industry, ship-building, motor-car.

2. Transport functions
   a. Shanghai is situated at the mouth of Chang Jiang and controls the entrance to Chang Jiang Basin.
   b. The Grand Canal runs from Hangzhou in the S to Beijing in the N.
   c. There is railway from N (e.g. Tianjin), S (e.g. Guangzhou) and W (e.g. Wuhan).

3. Port functions
   a. Shanghai is the largest port in China.
   b. Shanghai lies on major international shipping and air transport routes.
   c. Shanghai has a sheltered harbour and good port facilities.

4. Administrative functions
   a. Shanghai is a municipality and is the largest city in China.
   b. The administrative area covers the 6200 km² of the municipality.

5. Commercial functions, e.g. banks, stock market, trade.
6. Tourist functions, e.g. hotels.
7. Education functions, e.g. universities.

14 Classification of urban centres by functions
1. Many urban centres have a large range of functions and are multi-function cities, e.g. Shanghai.

2. Some urban centres are dominated by one particular function are called single-function cities, e.g. Canberra.

3. These urban centres can be classified according to the major function, e.g.
   a. Capital city, e.g. Canberra (Australia).
   b. Industrial cities, e.g. Pittsburgh (USA).
   c. Holiday resorts, e.g. Pattaya (Thailand).