Transportation is crucial to the economy of any country. Roads, Railway, airways and waterways used as a means of transport now a days. Railway and roads are the main arteries of communication, allowing goods to be transported from one part of the country to another. Through them, goods can be sent to seaports and from there to countries around the world and people from one place to another. Transportation network is strong indexes of the economic development of the country. In this connection the transport should be speedy, efficient and cheap. The transport effects the economic and social aspects. They carry the raw material to the industries and manufactured goods to the market. So, it increases the process of industrialization.

Means of Transport
1. Railways
2. Roads
3. Airways

Railways
Railways are the quick and efficient means of transport. They transport cargo especially heavy items for a long distance. Pakistan Railway is under the control of Ministry of Pakistan Railway, but at the present time some tracks have been given to private sector. The Railway inherited by Pakistan in 1947 was laid down by the British in 1861. In 1947, the route-kilometers of Pakistan Railways was 8554, which has increased to 8857 kms. in year 2000.
In the beginning the extension work of the Pakistan Railways was hampered because of the difficulty in maintaining and running the existing strength, particularly as the locomotives were run on coal, a scarce commodity after partition. Whatever coal Pakistan produced was of an inferior quality and it became increasingly difficult to import coal from India, the main supplier. Pakistan was forced to change its engines from coal to diesel at an enormous expense.

Gauge
Railway track is known as Gauge. There are three types of gauge.
1. Broad Gauge (5 feet and 3 inches wide)
2. Meter Gauge (3 feet and 3 inches wide)
3. Narrow Gauge (2 feet and 6 inches wide)
The Government of Pakistan has changed the Meter and Narrow gauges into Broad gauge due to the following reasons:
1. Less speed (Speed Problem)
2. Could not carry the maximum load for a long distance.
3. Repairing and maintaining was expensive.

Railway Workshops
Railway workshops had to be set up to remodel, repair and maintain them. Because there was little local wood, railway sleepers (which were made of wood at the time) were always in short supply. Pakistan railways slowly made the transition to concrete sleepers. Just as Pakistan Railways was fully rehabilitated, there was a new source of competition i.e. road transport. Railway workshops are the following:
1. Mughalpura Railway workshop Lahore.
2. Carriage and Wagon workshop Islamabad.
3. Carriage and Wagon Workshop Hyderabad.
4. Pakistan Locomotive Factory Risalpur.
Problems / Disadvantages of Pakistan Railway

1. Lack of Capital as railway requires immense initial investment i.e. for laying track, buying the new carriages.
2. High cost of repairing the tracks, sleepers and engines.
3. Switching from coal to diesel or electric engines.
4. Electrification of tracks and engines also require capital that’s why a limited length of track is electrified i.e. Lahore to Khanewal.
5. Broken track can cause serious accidents.
6. Over staffing and corruption.
7. A poor reservation system.
8. Uneconomic Stations.
9. The presence of single track on a short segment of the main dual line which has severely affected the running of more than one train at a time.

Importance / Advantages of Pakistan Railways

1. Pakistan Railway is efficient, convenient, cheap and speedy for long distance.
2. Railway normally transported the bulky and heavy goods for long distance.
3. It is safe and comfortable.
4. Pakistan Railway is avoiding congestion and delay.
5. Run to a regular and a reliable timetable.

Developments of Pakistan Railways

1. Replacement of steam engines with diesel engines due to shortage of coal.
2. Electric train has been established from Lahore to Khanewal.
3. Establishment of repairing workshops in different parts of the country.
4. Introduction of faster trains from Lahore to Karachi e.g. Night Coach.
5. Narrow and Meter gauge had been changed into Broad gauge.
6. The work on the railway track has to change from single to dual track.
7. Construction of Karachi Circular Railway (KCR) which was built to ease the transportation of goods and passengers within the city.
8. The Pakistan Railways has opened computerized ticketing system for reservation of seats, just to earn maximum.
9. In order to improve the functioning of Pakistan Railways, the government has decided to allow private investors to operate freight and passenger trains by paying charges to Pakistan Railways for the use of its rail track.

Principle Routes

1. Karachi to Lahore
2. Rawalpindi to Peshawar
3. Quetta to Chaman
4. Kotri to Larkana
5. Faisalabad to Khanewal
6. Karachi to Quetta via Kotri, Larkana and Jacobabad
7. Faisalabad-Sargodha-Khushab
8. Rawalpindi-Kohat
9. Sibi-Khost
Photograph of Single Track.

Photograph of Single Track

Photograph of Double Track.

Photograph of Double Track

Photograph of Railway Signals.

Photograph of Railway Signals
International Railway Links

Railways system connects Pakistan with Iran through Balochistan, India through Wagha Boarder (Attari), Afghanistan through Khyber Pass.

Study Fig.1, map of Pakistan Railway.

![Map of Pakistan Railway](image-url)

Fig.1

Q.1. Describe the pattern of Pakistan's railways.
Ans. Close and dense network of railways in Punjab and Sindh Province.
Railways run parallel to the rivers
At some places railway lines cross the rivers.
Peshawar and Quetta are connected by rail.
A railway line runs from Quetta to Iran.
No railway in south west Balochistan.
No railway in northern areas.

Q.2. What are the advantages of rail transport for carrying raw materials to factories?
Ans. Advantages
Cheaper.
Transport bulky / heavy commodities.
Safe and faster.
Suitable for long journey.
Run to a regular and reliable timetable.
Q.3. What are the disadvantages of rail transport for carrying raw materials to factories?

Ans. **Disadvantages**
- Not flexible.
- Does not provide door to door facility.
- Trains do not reach the factories.
- Danger of loss and wastage.
- Loading and unloading at railway station is expensive.
- Industrialist pay extra transportation charges while shifting.

Q.4. With the help of examples explain why large areas of Pakistan have no railways and only a few roads, which are mostly kacha.

Ans. North and north western areas.
- Hilly / mountains / rugged topography e.g. Gilgit and Chitral.
- South eastern areas consist of deserts e.g. Cholistan and Tharparkar.
- Balochistan is a hilly area.
- Steep slopes.
- Sand plains in desert areas / sand dunes.
- Difficult to construct.
- Roads are cheaper to construct (kacha).
- Less population / less number of users.

**Photograph of Broken Track.**

![Photograph of Broken Track](image1.jpg)

![Photograph of Broken Track](image2.jpg)
Photograph of Railway Station (Platform)

Photograph of Railway Station (Platform)

Photograph of Railway Engine.

Photograph of Railway Engine (Diesel)
Q.5 To what extent is it possible to develop railways further in Pakistan? Support your answer by using examples you have studied.

Ans. Possible

- Government / private funding (providing faster trains, e.g. Shalimar Express)
- Computerising ticket system
- Allowing private operating companies who pay to use track
- Electrification
- Changing single track to dual e.g. Khanewal to Lodhran
- Foreign funded e.g. funded by China.

Not possible

- Hilly / difficult terrain
- Much of network single track
- Lack of maintenance
- Overstaffed or lack of management
- Outdated locomotive
- Lack of funding.
**Roads**

Road transport is the most popular means of transport. It includes motor vehicles such as buses, trucks, cars, taxis, rickshaws, jeeps and motor cycles. Road transport carries 82% of the total passenger traffic and 54% of the total freight traffic in the country. Now Pakistan has a total of 2,05,850 kms including 1,05,280 kms of highways’s and 1,00,570 kms of low type of roads. Two important agencies handling road development, repair etc. are NLC (National Logistic Cell) and NHA (National Highway Authority). NLC was establish in 1978, is performing a great service by transport gains, edible oil and petroleum to and from Karachi port. Road traffic in Pakistan is mainly in private hands. 

**Importance of Road Transport**

1. Pakistan 64% population is living in rural areas, which has no access to railways. These rural areas are linked with cities and agricultural markets by roads.
2. The development of rural areas depends on the availability of roads. If the network of roads are constructed the rural life may be prosperous.
3. By the construction of roads, agriculture sector can be developed by providing agri-inputs and machinery and agri-products access to urban market.
4. Industrial products, consumer goods require roads for their supply to rural and urban centers.
5. For short distances and quick traveling roads are most feasible and time saving.
6. Roads play an important role in mountainous areas, where rail construction is not feasible.

**Roads have gained preference over Rail and Air transport due to:**

1. Greater Flexibility
2. Frequency
3. Speed
4. Economy.

**Types of Road**

There are three types of road:

1. **Metalled Road**
   
   Metalled roads are made up of stones layers and carpeted by Bitumen.

2. **Unmetalled Road**
   
   Unmetalled roads without any covering of stones or bricks.

3. **Soling**
   
   Soling made up of bricks and cement.

**Advantages of Road**

1. Road system is flexible.
2. Road can provide door to door service.
3. Roads are better source of daily traveling, for jobs and provide faster connectivity.
4. Fast over short routes e.g. (Motorway).
5. Roads can be built and maintained comparatively more cheap even in rugged areas.
6. Good network of roads, promote industrialization.
Disadvantages of Road
1. Expensive for long distance.
2. Slow in urban areas due to dense population.
3. Road increases air pollution.
4. Only small load can be carried.
5. Expensive to build and maintain.
6. Cost increases rapidly with time.

Principle Roads of Pakistan
1. Coastal Highway connecting Karachi with Bela, Turbat and onward to Iran with a length of 603 Kms.
2. Grant Truck Road connects Lahore with Peshawar passing through Gujranwala, Jhelum and Rawalpindi.
3. Indus Super Highway is between Karachi and Peshawar running along the western bank of Indus River.
4. National Highway (N-5) connects Karachi with Lahore passing through Thatta, Hyderabad Nawabshah, Sukkur, Bawalpur, Multan, Sahiwal, Okara and Renala. The cargo trucks mainly use it.
5. Karachi Quetta road connect Karachi to Quetta after passing Bela and Khuzdar.
6. Lahore Quetta road passes through Taunsa and D.G. Khan having followed the National highway up till Multan.
7. Super highway is yet the best metalled road in Pakistan and it connects Karachi with Hyderabad.

Study Fig.2, a map of the road network in Pakistan in 2002.
Study Fig.2, a map of the road network in Pakistan in 2002.

Q.1. Name the cities X, Y and Z.
Ans. X. Quetta  
     Y. Multan  
     Z. Hyderabad.

Q.2. For each of the roads leading to A and B, state the country to which it is going and the name of the pass through which it goes.
Ans. A. to China, through the Khunjerab Pass.  
     B. to Afghanistan, through the Khyber Pass.

Q.3. Describe the ways in which the road network of Punjab is different from the road network of Sindh.
Ans. Punjab more dense and Sindh less dense.  
     Sindh ‘other roads’ more dense in south and Punjab all over (none in SE).  
     More areas in Sindh with few / no roads.  
     More Foci.  
     Sindh 2 main roads follow River Indus then West to Karachi and Punjab spread out.  
     Motorway in Punjab, not in Sindh.

Q.4. Give reasons for your answer to Q.3.
Ans. One river in Sindh and 5 in Punjab roads follow these routes.  
     More desert in Sindh – less habitable.  
     Large areas of low population density in Sindh – less need.  
     Fewer major cities in Sindh – less need.  
     Industrial development.
Q.5. Explain why there are few roads in the area north of the line P – P shown on the Fig.2.

Ans. Mountains.
Steep slopes.
Landslides.
Snow.
Avalanches.
Floods.
Lack of demand.

Study Fig.3, a map showing three major cities and two major roads.

Fig.3

Q.6. Name the cities A, B and C.

Ans. A – Hyderabad
     B – Lahore.
     C – Peshawar.

Q.7. Using the map, describe the route of the N5 road, starting from Karachi.

Ans. NE (to Lahore).
     NW / then W (to Peshawar / Afghanistan).
     (East side of) River Indus.
     Khyber pass to Afghanistan.
     Crosses river at Hyderabad.
     Follows River Chenab then Ravi.
     Crosses River Ravi (near Lahore).
Q.8. Compare this to the route of the Indus Highway.

Ans. Other / west side of River Indus.
Heads north in Punjab instead of NE / follows only the Indus.
Does not go to Lahore / other large cities.
Shorter / more direct.
Crosses only one river.

Study Fig.4, a graph showing freight carried in a year by road and by railway in Pakistan.


Ans. Total larger by road.
Both increased 2003-6.
Road always increases but rail decreased in 2000.
Road 84 – 117 but rail 4 – 6 (1000 million tones per km) rail stayed almost the same.
About 20* more than railway.

Q.10. Suggest reasons for the differences in the amounts carried by road and railway.

Ans. More roads than railways.
More road vehicles than rail.
More places accessible by road / lorries can go anywhere / door to door service.
Lorries more useful / carry small amounts.
Railways old / lack of investment.
Investment in new / better roads / motorways.
Q.11. Why are there very few major roads and railways in Balochistan?

Ans.
- Low population density.
- Scattered population / few towns / lack of urban development.
- Rugged / mountainous areas.
- Desert / lack of water / difficult working conditions.
- Lack of government investment / backward.
- Little industry.
- Tribal opposition.

Q.12. Explain how better transport routes could help to increase development in Balochistan.

Ans.
- Industrialization – bigger lorries, employment.
- Urbanization – better travel.
- Faster travel for cars and lorries.
- EPZ and dry port developed.
- Better access to port at Gwadar / coastal development.
- Travel to Afghanistan or Iran via Quetta and passes.
- Access for health and education.
- Tourism.
- Mineral exploitation.
- Fishing development / better access to market.
- More security.

Study Fig.5.

![Fig.5](image)

Q.13. Give two advantages of transporting goods by

Ans.

A **Bullock Cart**
- Cheap / economic.
- Not fuel cost.
- Available / used in other farm work.

B **Lorry**
- Quick / fast.
- Carries bigger / heavier load.
- Can go further / does not need to rest.

Q.14. Compare transport by road and rail for raw cotton from the farms to where it is processed within Pakistan.

Ans.
- Road transport collects directly from but rail cannot.
- Road transport delivers directly to mill / small unit but rail rarely does.
- Road transport cheaper / faster over short distances.
- Road transport more efficient for small amounts / rail transport for large amounts.
- Rail transport may be cheaper / faster over long distances.
- Robbery more likely with road transport.
- Road transport is not governed by timetable as is rail.
Q.15. What would be the most suitable form of transport from Peshawar to Chitral be for
   A  a rich business?
   B  the delivery of gas cylinders?
   C  the transport of wool and hides?

Ans. A  a rich business
     Aeroplane / Car

   B  the delivery of gas cylinders
     Road / Lorry / Rail.

   C  the transport of wool and hides
     Road, pack animal, lorry, rail.

Q.16. Explain the problems of maintaining infrastructure and communication in these (Peshawar and Chitral) areas all through the year.

Ans. Snow and Ice.
     Danger of avalanches.
     Heavy rain.
     Flooding.
     Earthquakes.
     Landslides.
     Shortage of machinery / people.
     Inaccessible / isolated.

Motorway

Pakistan motorway project will ultimately provide North, South link in the country. The fast growth of traffic on national highway has made transport slower and in-efficient. To relieve traffic pressure on national highway , the motorway was considered in 1990. It will be a six lanes and will provide a completely uninterrupted flow of traffic and exit only at the designated interchanges.

Motorway can be divided into following sections

<table>
<thead>
<tr>
<th>Motorway</th>
<th>From</th>
<th>To</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td>Islamabad</td>
<td>Peshawar</td>
</tr>
<tr>
<td>M2</td>
<td>Islamabad</td>
<td>Lahore</td>
</tr>
<tr>
<td>M3</td>
<td>Pindi Bhattian</td>
<td>Faisalabad Section</td>
</tr>
<tr>
<td>M4</td>
<td>Faisalabad</td>
<td>Multan</td>
</tr>
<tr>
<td>M5</td>
<td>Multan</td>
<td>D.G.Khan</td>
</tr>
<tr>
<td>M6</td>
<td>D.G.Khan</td>
<td>Rato Dero</td>
</tr>
<tr>
<td>M7</td>
<td>Rato Dero</td>
<td>Karachi</td>
</tr>
<tr>
<td>M8</td>
<td>Rato Dero</td>
<td>Gawadar</td>
</tr>
<tr>
<td>M9</td>
<td>Karachi</td>
<td>Hyderabad</td>
</tr>
</tbody>
</table>

Features of Motorway

1. Motorway is two way side and three lane system.
2. Construction of flyovers, underpass and bridges on rivers.
3. Constructions of interchanges.
4. Emergency phones have been installed.
5. Toll Plaza.
6. Restaurant, Filling station and rest areas.
Photograph of Motorway.

Advantages / Importance of Motorway / Why we have Motorways?

1. It reduces the burden of traffic on National Highway of the country.
2. It will reduce the chances of accidents.
3. It connects the main cities.
4. Industrial estates could be established on its side, which will open up employment opportunities.
5. It would promote industrial growth by supplying raw material to industries and manufactured goods to market.
6. Many new settlement could be established near motorway.
7. Motorway could further be connected to Afghanistan and central Asian republics which will increase foreign trade.
8. Road transport should be quicker and more efficient.
Study Fig.6, showing the location of motor way in Pakistan.

Fig.6

Q.1. Why was the first motorway in Pakistan built between Islamabad and Lahore?

Ans.
- Two large centers of population.
- Passed by other populated areas.
- To promote growth of industrial estates.
- Large volume of traffic / ease congestion / save other roads.
- Better for lorries / large vehicles.
- Link from Lahore to Karakoram Highway.

Q.2. To what extent would the building of more motorways such as that between Lahore and Islamabad help the development of industry in Pakistan?

Ans. **Advantages**
- Better movement of finished products from industry to ports / other towns.
- Better movement of raw materials / machinery to industry.
- Stimulates industrial development near motorway.
- Helps development of dry ports.
- Better movement of business men / tourist.
- Faster travel.
- Better road surface / wider for large vehicles / lorries.
- Shorter / by – passes towns and villages.
- Relieves other roads.

**Disadvantages / Problems**
- Expensive.
- Takes long time to build.
- Needs maintenance.
- Increases debt.
- Only connects large centers.
- Will not go to small towns / rural areas.
Road Transport VS Rail Transport

1. Motor vehicles are relatively inexpensive. 1. Railway engines, sleepers and wagons are expensive.
2. Roads are easier to build and maintain. 2. Rail tracks are difficult to build and maintain.
3. Industrial estates develop with the construction of roads. 3. Does not encourage industrial estate because railway stations are built at a distance increasing expense.
4. For short distances, people prefer to travel by roads. 4. For long distances fast trains are preferred.
5. Wagons and buses drop people at convenient places. 5. The trains stops at the stations only.
6. Carries perishable and high value goods. 6. Railway transport bulky low value goods.
7. Short term returns on investment. 7. Long term returns on investment.
8. Roads can be built and maintained comparatively cheaply in rugged areas.

Air Transport

Air Transport is most effective for low volume and high value goods that need to be moved quickly. There is an extensive domestic air network linking all the key cities and major district centres. In 1947, Orient Airways a small air company, operated in Pakistan. By 1949 there were three small air companies, Pakistan Airways, Orient Airways and Crescent Airways. After 1955 two of these closed and Orient Airways merged with Pakistan Airways to form Pakistan International Airlines.

PIA (Pakistan International Airline)

PIA (Pakistan International Airline) was established in 1955 to provide safe and efficient transport on domestic and International routes. The network of Pakistan International Airlines now covers 55 International and 37 domestic destinations. The Civil Aviation Authority manages and develops civil aviation in Pakistan.

Air Transport and Private Sector

With the deregulation of the airline industry in the early 1990s, three private airlines started operating in the country.
1. Shaheen Airlines
2. Bhoja Airlines (closed)
3. Aero Asia Airlines.

These airlines operate on domestic routes to the major cities but are starting to expand internationally. New airlines are starting and this should provide a more competitive environment.
PIA’s Domestic Routes

**Big Cities**
- Karachi, Lahore, Islamabad, Peshawar, Faisalabad, Multan, Hyderabad, Sukkur and Quetta.

**Intermediate Size Towns**
- Nawabshah, Jacobabad, Mianwali, Bannu, Kohat, D.I.Khan, Larkana.

**Inaccessible Areas / Remote**
- Gilgit, Skardu, Chitral, Zhob, Khuzdar, Pasni, Panjgur, Turbat, Jiwani.

PIA’s International Routes

**European Countries**
- UK, Germany, France, Italy, Russia.

**U.S.A.**
- New York, Chicago, Washington D.C.

**Middle East Countries**
- UAE (Sharjah, Abu Dhabi, and Dubai), Bahrain, Oman.

**Eastern and Far Eastern Countries**
- India, Malaysia, Philippines, Bangladesh, Sri Lanka, Singapore, Thailand, China (notably Hong Kong).

**International Airport**

It is an airport or place from which airlines of more than one country operate to the destination outside the country. Such airports are located in big cities having large population and major economic activities e.g. Karachi, Islamabad, Lahore.

**An International Airport needs**
1. A much larger area of land / Air Craft Parking.
2. A longer runway (to handle larger aircraft).
4. To be near a larger city / center of International / trade.
5. An International airport usually operate day and night.

**Regional Airport**

It is primarily for the domestic flights for transportation of passengers and cargo within the country. Such airports are located in far flung towns which have less population and provide traveling facilities to local people within the country for the long distance, e.g. Chitral, Skardu, Rahim Yar Khan, Sukkur.

**Regional Airport needs**
1. A small area of land / Air craft Parking.
2. A smaller runway (to handle small aircraft).
3. Regional road / rail links.
4. To be near a smaller / larger city.
5. Regional airport usually operate day time.
6. A regional airport handles small no. of passenger.
Q.1. **What conditions are necessary for the location of an Airport?**

**Ans.** Flat land.
- Very Large Area.
- Cheap Land.
- Well Drained.
- Solid Ground.
- Large pool of Labour (Skilled and Unskilled).
- Close to utilities (Water, Electricity).
- Road / Rail links to nearby areas.
- Far away from houses.
- (Preferably) Sunny / Dry / Frost free / Snow free / Fog free climate.
- Large source of custom.

Q.2. **Why has the development of air transport been important within Pakistan?**

**Ans.**
- Large country.
- Remote areas which are cut off by high mountains / deserts.
- Many areas without railways.
- Strategic reasons.
- Help administration / government.
- Promote mineral exploration.
- Promote industry.
- Promote internal trade.
- Help tourist industry Emergency use.
- Rapid communications.
- More people can afford air transport.
- More comfortable / easier / preferred to land travel.
- Prestige.

Q.3. **Name an International airport in Pakistan.**


Q.4. **Name a regional airport in Pakistan.**


**Factors contributing to the development of air transport**

**Internal Factors**
1. Effective mode of transport for high value light weight goods
2. Easy access to remote areas
3. Prestige
4. Emergency use.

**External Factors**
1. Transport of perishable items e.g. Fruits
2. Migration
3. Tourism Industry
4. Delegations.
Study the map Fig. 7, which shows internal air routes in Pakistan.

**Fig. 7**

**Q.5. Describe the distribution of air routes in Pakistan.**
**Ans.**
- Largest number / biggest foci from Karachi.
- Centers / foci in other major cities e.g. Lahore, Multan, Turbat, Quetta.
- More south-north / SW – NE less east west.
- Many routes follow Indus Plain.
- None in extreme north.
- Few / none in Chagi, SE Sindh / Thar.

**Q.6. Describe the pattern of air routes from Islamabad.**
**Ans.**
- I most directions / widely spread
- More / many to south
- Longer routes to the southwest
- Fewer / a few to the north
- Shorter to the north
- None to the coast.

**Q.7. Explain why there are more internal air routes from:***
**Ans.** **Islamabad**
- Federal Capital
- Administration / Business center
- Larger population
- More people can afford to travel / high standard of living
- International airport
- Access to Northern areas, Better road links.
Karachi  
Provincial Capital (Sindh)  
Administration / Business centers / Industrial and Trade centers  
Larger population  
More people can afford to travel / high standard of living  
International airport  
Access to Southern areas and Desert areas  
Better road and rail links.

Lahore  
Provincial Capital (Punjab)  
Administration / Business centers / Industrial centers / Trade centres  
Larger population  
More people can afford to travel / high standard of living  
International airport  
Access to Northern and Southern areas  
Better road and rail links.

Peshawar  
Provincial Capital (N.W.F.P)  
Administration / Business centers / Industrial centers / Trade centers  
Larger population  
More people can afford to travel / high standard of living  
International airport  
Access to Northern areas  
Better road and rail links.

Q.8. Explain why there are less internal air routes from:
Ans. Dalbandin  
Poor road links  
Lower population  
Less administration / office jobs  
Fewer people can afford to travel / low standard of living  
No international airport  
Desert / barren land.

Q.9. Why is air transport and travel important within Pakistan?
Ans. Faster than road and rail  
Better to reach remote places / places where roads are poor  
Better in hilly / mountainous areas  
Better for light, high value goods  
Less chances of robbery / safer  
More people can afford air fares  
More demand from business  
Tourism within Pakistan  
Emergencies  
Improved communication between cities  
Can be used all year / not affected by snow, flood etc.
Q.10. Since 2000 the Sialkot Export Processing Zone has been in the process of development at Sambrial and a new airport is being built by the Sialkot Chamber of Commerce. How will these developments help the expansion of industry?

Ans. **EPZ**
Government incentives
Infrastructure put in place
Attracts foreign / private investment
Attracts foreign technological / management skills
Improved quality
Better marketing

**Airport**
Closer than Lahore’s
Cheaper transport for imported light raw material
More convenient for visiting businessmen
More convenient for exporting light goods
Service industries develop to serve airport
Tourism.

Q.11. What factors hinder the development of air transport in northern areas of Pakistan?

Ans. Bad weather / snow / ice / fog / heavy rain / floods
Lack of flat land for runways / airways
Lack of good roads to airports
Lack of passengers
Problem of blocked radio signals.

Study **Fig.8**, a map of air routes in Pakistan.

![Fig.8](image-url)
Q.12. Name two major airports in the northern Punjab shown on the map.
Ans. Lahore (Allama Iqbal)
Islamabad.
Faisalabad.

Q.13. Describe the distribution of air routes from the northern Punjab.
Ans. Mostly to the south-west / south.
To the coast / Karachi.
Follow the Indus Plain.
A few north and west.
To NWFP / Peshawar.
Via Islamabad to Northern areas / Chitral / Gilgit.
West to Quetta.

Q14. Explain the advantages and disadvantages of using air transport in the northern Punjab.
Ans. **Advantages**
Fast / saves time.
Over difficult relief / mountains / deserts.
Where no roads / railways / inaccessible.
Direct to other countries.
Business / Politicians / Tourism.
More comfortable.
High value / light goods.
Promotes tourism.

**Disadvantages**
Bad climate / fog / snow.
Expensive.
Unsuitable for perishables / heavy loads / cheap goods.
Few airports / difficult to build.
Does not go door to door.
Air pollution / global warming.
**Dry Port**

A dry port is an inland intermodal terminal directly connected by road / rail to a sea port and operating as a centre for the transshipment of sea cargo to inland destinations.

Some inland cities which are far from seaport have established dry ports in order to promote the foreign trade. The cities which act as a dry port help to speed up the process of export and imports by checking process and giving the clearance by the custom authorities.

Private companies take the responsibility to transport the goods to Karachi and arrange to lead the consignment on a proper cargo ship, which takes it to its destination.

At present, the dry ports working in Pakistan are Lahore, Faisalabad, Rawalpindi, Sialkot, Multan, Peshawar, Quetta, Hyderabad and Larkana.

**Main Functions of Dry Port**

1. To deliver imported goods to the consignee and collect the exported goods at the dry port and not at the seaport.
2. To clear goods through custom and complete other formalities.
3. To save importers and exporters from the trouble and cost of going to the seaport.
4. To reduce the work load of the seaports.

**Purpose / Why are dry ports important to the economy of Pakistan?**

1. Reduce workload at Karachi port / Port Qasim
2. Speeds up customs procedures
3. Saves time transporting goods to Karachi
4. Stimulate foreign trade (in cities far away from ports).
5. Big source of revenue.

**Facilities required for Dry Port**

1. Efficient managerial staff
2. Heavy containers to carry bulk cargo
3. Huge storage sheds and vast open area
4. Highly efficient rail transport with a container to carry the bulk cargo.
5. Security gate / guards
6. Refrigeration facilities
7. Cranes / loading facilities
8. Export checks and clearance.

**Advantages of Dry Port**

1. Reduce workload at Karachi port / Port Qasim
2. Speed up customs procedures
3. Saves time transporting goods to Karachi
4. Stimulate foreign trade (in cities far away from ports).
5. Big source of revenue.

**Disadvantages of Dry Port**

1. Very expensive to construct dry ports
2. Required very large area
3. Due to mismanagement some dry ports have been converted into smuggling dense by the custom official who helped importers to get their consignment clear without paying duty and taxes.
Q.1  Give an example of a dry port and explain why it is located where it is.
Ans.  Faisalabad / Hyderabad / Lahore / Larkana / Multan / Peshawar / Quetta.
      Inland / far from seaport
      In large cities
      Where industries / productive agriculture regions
      Where good road and / rail connections.

Q.2  Explain how dry ports have increased trade in Pakistan.
Ans.  Increases foreign trade / more exports / more imports
      Better access to remote areas / areas away from Karachi
      Saves time
      Less congestion / relieves burden at Karachi
      Speeds up / more efficient paperwork
      More efficient loading
      Stimulated / encouraged business / investment.

Study Photograph A

Photograph A

Q.3.  Describe the features of Lahore Dry Port that can be seen in Photograph A.
Ans.  Lorries / trucks / containers / trailers
      Sign to import examination area
      Storage sheds / warehouses
      Covered loading area / shelter with poles
      Loading platform
      More containers in background / behind sheds
      Flat / hard / concrete ground
      (2) men / drivers / labours
      Forklift truck.

Q.4.  State two other features of a dry port that cannot be seen in the Photograph A.
Ans.  Export checks and clearance
      Import examination area
      Railway yard, Refrigeration facilities
      Management offices / customs administration
      Cranes / loading facilities
      Large storage area, Security gate / guards.
Q. 5. Why are dry ports important to the economy of Pakistan?
Ans. Reduce workload at Karachi port / Port Qasim
    Speeds up customs procedures
    Saves time transporting goods to Karachi
    Stimulate foreign trade (in cities far away from ports).
    Big source of revenue.

Q. 6. What benefits do we get by developing transport resources?
Ans. The role of transport for the development of a country can be classified into
    Three categories:

    **Economic**
    Increase in trade
    Mobility of labour
    Price stability
    Link between rural & urban areas
    Approach to market
    Increase in state income
    Advertisement of the products
    Reduction in unemployment
    Extension of settlement.

    **Political**
    Political awareness
    Sound defence
    Maintenance of law and order.

    **Social**
    Spread of education
    Culture interaction
    Increased social welfare.

**Water Transport**

Waterways are important for handling high bulk goods which do not need quick movement.

The inland waterways along rivers are not developed but seaports handle most of the international trade.

Pakistan has two major seaports namely Karachi and Port Bin Qasim. Beside two fish harbour cum mini ports are Gwadar and Kati Bunde.

Recently government of Pakistan has signed and agreement with china to develop Gwadar as a deep seaport. First phase of this port has been completed in 2005.

**Seaport**

A *city or town with a harbor where ships stop to load and unload cargo*. Important Seaports of Pakistan are the following

1. Karachi / Keamari
2. Port Bin Qasim
3. Gwadar
Karachi Seaport / Keamari

The port at Karachi is located to the west of the Indus Delta on the Arabian Sea. It is a deep water natural seaport with a long approach channel and can receive tankers, Containers, bulk and general cargo ships. It is also a natural harbour sheltered by the islands of Keamari and a breakwater at Manora.

It has a number of wharves. In the eastern part of the port, 17 wharves have been developed. They are collectively called East Wharf. West wharf is located at the western side of the port.

Developments

A programme to modernize Keamari / Karachi port has been initiated to provide the following facilities.

1. Construction of flyover bridges connecting and bypassing the port area have been built to ease traffic congestion in the port area.
2. Reconstruction of berths to handle increasing volumes of cargo.
3. Provision of navigational aids and radars.
4. Environmental protection equipment to keep port seawater clean from pollutants and seepage of oil from the ships.
5. Improvement and expansion of storage facilities at both east and west wharves.
6. Container terminals at west wharf to modernize cargo handling.
7. Liquid products terminal with ancillaries (support facilities, i.e. unloading, storing and transporting of liquid products).

Port Bin Qasim

Port Qasim is located 20 kilometers south-east of Karachi developed at Gharo Creek. It is Pakistan’s second deep seaport which started in 1977. The first phase of its construction was completed in 1982 with the cost of 2700 million rupees. It has modern machinery to relieve the pressure at the Karachi Port and for handling raw material for Pakistan Steel.

Port Qasim is the first integrated port of Pakistan that combines the function of multipurpose deep seaport and a designated industrial zone. It also offers transport and other infrastructure facilities for industrial development. 12,000 acres of land have been allocated for the establishment of industries. Some industries which are located there are paper and board, chemicals, cotton textiles and assembly industries. This port is connected with main railway line at Pipri.

The major categories of cargo handled at Port Qasim include Iron ore, Coal, Grain, Furnace Oil, Edible Oil, Rice, LPG containers Jute and Fertilizers.

Container trade is increasing with fast speed, in 1994 a container terminal was also competed with latest loading and unloading facilities which is named as Qasim International Container Terminal, which started functioning on August 1997.

Q.1. Explain why it was necessary to build this new port.

Ans. Increasing work load of Karachi port.
To increase import and export of the country.
For handling import of iron ore and coal for steel mill.
To develop a new industrial area.

Q.2. Explain why it was built on Gharo Creek.

Ans. Area of flat land
Deep water
Wide / large area of water
Sheltered water
Cheap / unpopulated area
Near / 20-23 kms from center of Karachi
Close to National Highway to Karachi
Close to main railway line to Karachi
Steel mill there.

Q.3. **Name its main imports and explain for what purposes they are imported.**

**Ans.**
Iron ore for the Pakistan Steel mill
Coal for the Pakistan Steel mill
Petroleum for power station / fuel for transport
Grain to feed the growing population of Pakistan
Edible oil for Pakistan's food processing industries
Jute for Pakistan’s jute mills
Fertilizers to increase farm yields
Electronics for industrial / domestic use
Machinery for factories / farming / mining/ transport etc.

**Gwadar Sea Port**

The Gwadar district is located on the Makran coast in Balochistan. The idea to construct a deep water port at Gwadar was first discussed in 1993 but it was not until 2001 that the government of Pakistan signed an agreement with China so that the plan could go ahead. The total area of the port will be 2500 acres. It is surrounded by a mountain range, desert, sand and tidal flats. The weather, most of the year is clear on account of very scanty rainfall.

**Economic Development**

1. Could be used as a substitute to Karachi and Bin Qasim Port.
2. Upgrading of Gwadar International Airport.
3. Openings for trade with Central Asia, Afghanistan, China, Japan and Singapore.
4. Warehouses built for storage.
5. Bigger fish harbour.
6. Opens employment opportunities to skilled and unskilled labors.
7. Growth of industrial estates and export processing zones.
8. Industries related / fish processing.
9. Makran coastal highway to Karachi under construction.
10. Highway west to Central Asian Republics
11. Development of rail network
12. Setting up of grid stations by WAPDA to supply power.
14. Mirani Dam on River Dasht and Hingol Dam on River Hingol project.
15. Road link with Afghanistan and Iran.
16. QESCO power lines.

Q.1. **State and explain the main functions of the ports on the Balochistan coast.**

**Ans.**

**Functions**
Fishing harbour
Fish processing
Handling cargo / goods / trade import - export
Coal other named cargo

**Reasons**
Arabian Sea rich in fish i.e. herring / mackerel / sardines / shark.
Makran produces little agricultural food.
Fish is essential part of diet / subsistence of coastal people
Road communications are very poor / railways are non-existent
Sea link is important for bulky / heavy items.
Q.2. Why are the ports in Balochistan small?

Ans. No large estuaries / sheltered harbours
Small population of the Makran coast
Mountainous / rugged interior
In hospitable interior
Less developed,
Little agriculture,
Little industry for fishing
Lack of infrastructure,
Poor communication
Few links to developed areas to interior.

Study Fig.11, which is an outline map of the coastal areas of Pakistan.

![Map of Pakistan's coastal areas](image)

**Key**

--- International boundary

--- Coastline

Fig.11

Q.3. Name the two new ports X and Y shown on Fig.11.

Ans. X Gwadar
Y Port bin Qasim.

Q.4. Suggest reasons why these two ports were built.

Ans. Gwadar to serve Balochistan and adjoining states, such as Afghanistan, Iran and Central Asian States.
Port Qasim to service iron and steel industry; imported oil.
Both ports help to reduce the pressure on Karachi.
Communication

The imparting or exchanging of information by speaking, writing, or using some other medium.

Q.1. **State two methods of telecommunication.**

**Ans.** Telephone  
E-mail / internet..  
Fax.  
Computer conferencing.  
Video Conferencing.  
Television.  
Radio.

Q.2. **Explain how telecommunication can be used to improve the supply of goods and increase trade in Pakistan and abroad.**

**Ans.** How  
Faster.  
Can contact other countries / long distance communication.  
Easier communication.  
Internet conferencing.  
Better advertising.  
**For**  
Ordering / purchasing / buying / selling.  
Internet banking / transfer of funds.  
Finding out web / searching for goods or suppliers.  
Assembly of components.  
Call centers.  
Searching for goods or suppliers.

Q.3. **How can telecommunication such as the telephone, e-mail and the internet help?**

**Ans.** **To buy and sell the goods stated**  
Locating supplies  
Advertising goods / publicity  
Arranging transport  
Finding orders  
Faster method  
Arrange delivery  
Can communicate internationally.  
**In the expansion and modernization of industries**

Credit ideas of increased funds by sales and advertising  
Obtaining machinery and building materials (best prices)  
Arranging transport  
Expert advice  
Easy communication with branches in other areas / countries  
Contact with investors  
Share dealing  
Sites for education of workers.
Study Fig.9, which shows an advertisement for a big company.

THE BIG POWER TRACTOR COMPANY

- Our tractors are big and powerful.
- They work quickly and efficiently.
- They can do many tasks.

For sale or lease

Bank loans can be arranged

Contact
The Big Power Tractor Company, Karachi, Pakistan
Tel. 021-7654222
Fax. 92-21-7654333
Website www.Bigpowertractors.com
E-mail bigpowertractors@pakcom.com

Q.4. With reference to Fig.8, state four ways of contacting this company.
Ans.
Telephone.
Fax.
E-mail / web site / internet.
Letter / address.
Visit.

Q.5. Which is the slowest way of contact?
Ans. This depend on the answer to Q.8.

Q.6. Why does the company advertise many different ways of contacting?
Ans.
Easy.
Choice.
Depend on distance.
To attract foreign interest.
Visit is more personal.
Q.7. With reference to Fig.10, explain the importance of good communication to a business such as Cotton Fabrics International.

Ans. For ordering supplies / linking to dealers
For advertising
For market research
For direct sales / customer contact
Speed of contact
Global reach / International exposure.
Information Technology

Information Technology is the use of hardware, software, services and supporting infrastructure to manage and deliver information. OR

It is the study or use of systems (especially computers and telecommunications) for storing, retrieving, and sending information. IT typically refers to equipment such as computers, data storage devices, networks and also communication devices.

Advantages of IT

More cheaper, quicker and efficient communication
Creation of new jobs
Reduce human labor
Globalize the business
Minimise the cost.

Q.8. What problems might there be in extending Information Technology (IT) throughout Pakistan?

Ans. Lack of electricity in remote areas
Lack of signal in remote areas / many people live in remote areas
Lack of media infrastructure e.g. masts/WiFi/telephone lines/cables
IT illiteracy
Lack of IT professionals
Frequent electrical/technical faults/breakdowns/loadshedding/damage from natural disasters
Decreases employment/number of office workers
Resistance from older generations/traditional/tribal societies
Real or perceived threat of Internet on cultures/belief systems
Risk of cyber attack
Capital intensive / high initial cost / lack of government finance / high cost of replacement
Technology has to be imported / expensive imports of technology / negative effect on balance of payments of import of technology
Population cannot afford bills/equipment.
Terms

1. Wharf
A wharf is a landing stage to which barges and ships may be moored while loading and unloading.

2. Berth
A place where a ship or boat can stop and stay usually in a harbour.

3. Terminal
A building / set of building at an airport where air passengers arrive or leave.

4. Cargo
Goods carried in a ship or plane.

5. Warehouse
A building where large quantities of goods are stored.

6. Container
A large metal or wooden box of a standard size in which goods are packed so that they can easily be lifted on to a ship or train.