1. Operation manager has responsibility to ensure all of the products or services delivered to the customers at the right time, right amount, good quality, and so on. In order to do this, Operation manager deal with a lot of things, such as production excellence, accurate forecast, capacity planning, supply chain, etc. Having said that, regarding to the capacity as one of the critical thing for OM to be managed, there are 3 strategies to manage the capacity which are:
   - Level capacity strategy
   - Chase capacity strategy
   - Demand management

a. Level capacity strategy is the strategy to supply the demand through setting up a uniform capacity level in particular period. This level has to be setup throughout the planning period, so forecasting the demand has to be accurate is very critical to use this type of strategy. Level strategy means the company uses always the same level of operators, staffs, materials, or machines on particular period*. Example: mass production company such as automotive industry or food industry using this kind of strategy. They usually setup their production level in the forecasting period (usually yearly basis), and they break down the forecast result into monthly or weekly basis. This strategy prevail in company who has facilities (machines, materials, etc) quiet difficult to be moved, expensive, and cannot be flexible to change because the setup cost for their facilities usually very expensive they use inventory as backup plan.*

b. Chase capacity strategy is strategy to cope with the customer demand through leveling their capacity in particular level at the particular period depends on how much the demand is at that period or what kind of season that they face. Therefore with this strategy company can fluctuate/setup their capacity easily. This strategy, basically, is to optimize the gap between capacity the demand, minimise the capacity when the demand is low, maximise the capacity when the demand is high. They change the level of capacity using part time employees, outsourcing, and setting up the machines. This strategy can be used by company who has very good responsiveness and ability to change easily, such as Nike and SMART CAR. These companies enable their ability to be responsive through having flexible manufacturing processes and a very good relationship with their suppliers (integrated supply chain)

c. Demand Management is strategy to change the pattern of demand to make the demand as close as available capacity through marketing and advertisement excellence. Basically this strategy is attracting the customer with promotion, discount, and other advertisement strategy in order to increase the demand when the demand is getting lower at some particular time. The cheap price if customer book in advance very early is one of their strategy to manage the demand, therefore company know how much is the demand at some particular time. Example ➔ hotel and airline company, they use this strategy because
they cannot change their capacity due to their facilities is very expensive and has fix amount.

In conclusion, these 3 types of strategy leverage company to supply their products or services to the customers. However, company usually cannot use only one of these strategies purely; they have to mix up these strategies. It would be difficult to accommodate the demand with only using one strategy.

(briefly outline the different process types you might observe in operations. You should discuss either manufacturing or service process types)

B> There are 5 types of processes related to production, which are:

- Project processes
- Jobbing processes
- Batch processes
- Mass processes
- Continues processes

The differences between these types of processes based on the variety of products which they produce and the volume of the demand which they have to cope with. The description about the processes, listed below;

- Project processes → this type of process deal with high customized products but in very low volume. Uncertainty of demand and product specification is very high, the highest among the other types. This process basically has long interval between projects sometime it reaches more than 2 years. Example of this process is Consultant Company which always deals with different case, different client, and different kind of products. Another example is building constructor company, this company usually has very long period of project and every particular project has different type of product specification.

- Jobbing processes → jobbing processes is a type of process which deals with high variety of products in a very low level of volume. The level of the volume and variety is slightly same with project process but jobbing process has much smaller products than project process. Usually this kind of process has more complex process map rather than project process. Example of this process are high-end tailor or garment company, this company provides customer with a lot of product designs based on what customer want, customer can make their own dress and very personalized.

- Batch processes → this process obtains medium variety of products in higher volume than jobbing process. This type of company usually produce more than one product and they divided the products into some batches based on similarity of process, color, size, etc in order to have a good sequence in the production line. Basically, this process is very repetitive, so it makes the process map quiet simpler than jobbing process.

- Mass processes → this kind of process is usually used in high volume production but in low variety of products. The volume of product reaches approximately more than 500
units per day. This type of process can be used if the product has very simple process and very repetitive, and the process usually has single flow processes. Example of this process is television factory and food factory. They use this type because they have similarity of process among the products, for instance the TV company produces a few kind of TV but basically the process to make it is same thus the production of the TV is very repetitive.

- **Continues processes** this process deal with very high volume than mass process and very low variety of products, even it is just one type of product. This process has smooth and single line process map. Example of this process is Oil Refineries production. They use this process because they only produce single product, which is oil, on the other hand the volume of the oil is very massive.

*(technologies have transformed the way in operations deliver services. Discuss this proposition using appropriate examples)*

2. Nowadays, the development of technology has been developed very radical, the development influence every single activity in every companies. Marketing, production, sales, operation, IT system, etc has been influenced by the technology. As the consequences, technology makes them enable to do their jobs easier than before. This development is still growing until now thus it will influences more and more to the company.

In term of Operation function in the organization, this function has been developed align with the development of technology, the operation strategy always put the technology into their account in order to increase their performance. It is no doubt if we say that internet and computer software having the biggest influence to operation. Based on the fact, these technologies change and increase operation performance, as an example I would like to talk about Alton Tower, the famous theme park which built in Staffordshire, very rely on computer software and internet to leverage their operation. They use these technologies to make customer getting easier and more comfortable to enjoy all the rides on the park. Customers don’t have to queue in the ticket box because they can buy the tickets from their house, and on the park customer enabled to get queue information because Alton Tower provide them with queue information system which describe the queuing time in particular ride. In addition, by using the online ticketing and e-advertisement Alton Tower can manage their capacity because they get the data of demand in some period so they can manage their capacity as well as their operation strategy in order to satisfy customer and deliver services more accurate. On the other hand, the e-advertisement enable Alton Tower to attract customer to come to the park therefore they can manage their demand and manage their capacity utilization. Moreover using this kind of advertisement is very cheap compare with TV advertisement, newspaper, etc.

However, technology is not always make the jobs easier, but sometimes technology enhance customer specification, for instance using internet makes customer can easily complaint or ask company to improve their services thus company has to be well adapted and be more responsive with the customer. As consequences, company has to work extra in order to cope
with this issue, re-design the process, re-scheduling, re-work the products are the things that company to be deal with. Having said that, technology has advantages and disadvantages to the operation as long as technology is being used in appropriate way it will improve the operation performances.

(for an operation of your choice, discuss how the operations strategy of that organization has adapted to a changing global environment)

3. Environmental issue is one of the biggest things for company to be deal with. It is very critical for company to put this issue into their strategy. Global warming, climate change, and unpredicted weather are the results which are caused by the factory production, vehicles emission, illegal logging, etc. but the global warming most caused by the factory pollution which gives CO more than other causes. Moreover, the reduction of rainforest is caused by the demand of companies who need wood as their raw material. Therefore, it is a responsibility for company to be environmentally friendly, there are a lot of companies who turn and change their strategy in order to become “green”. As an example, Marks&Spencer (M&S) has become the green crusader company since 2006. Because of this change, M&S has to change their strategy from the supply chain, production, marketing, sales, etc. In term of Operation strategy, M&S had changed their raw materials into the recyclable and reusable one. This strategy made M&S seeking new materials (of course new suppliers). Moreover, M&S had to seek new method and process to produce the environmentally friendly products thus they have to change their production system. Before they changed the production system, the design of new products and processes had to be invented previously. Deep research of the process and design from the R&D took time and cost, and the result from the research has to be accurate, assurance that the result has good quality, makeable, and of course environmentally friendly has to be proven. Of course this activities really costly and seems very radical, but if we take a look the market nowadays there are a lot of customers and stakeholders who concern about this issue. They will give higher perception to company which make or put environment issue into their strategy. So we can say that is worth to make some radical change in order to gain the money from the “green” customers, who getting increase year by year, and in the end M&S will gain more profit and get sustainable also become the first company in their industry who concern about the environmental issue, as we know it’s a very good advantage to be the first in the market. The radical alteration for this strategy is very worth to be implemented, even though M&S has spent big effort in terms of money and time, but the results cited M&S is leading company in garment industry and the improvement of the performance increased after M&S use this strategy.