

**PAPER 16**  
**BUSINESS STRATEGIES & WORLD CLASS PRACTICES****Date: 13.12.2009**  
**Time: 2.00pm to 5.00pm****Max. Marks 100**  
**Duration 3 hours****Instructions**

1. The question paper is in three parts
  2. Part A is compulsory. Each question carries one mark. **Total marks-32**
  3. In Part B answer 3 questions out of 5. Each question carries 16 marks **Total marks-48**
  4. Part C is a case study with sub questions and it is compulsory. **Total Marks-20**
- 

**PART A****Q.1. Fill in the blanks. (Please do not reproduce the statement)**

- i) Ability to make changes quickly and to respond to customers quickly is \_\_\_\_\_.
- ii) In the manufacturing environment time based competition results in responsiveness and \_\_\_\_\_.
- iii) According to Makell world class manufacturing rests on three pillars: \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_.
- iv) Technique used to determine the quantity and timing requirement of dependent demand items is called \_\_\_\_\_.
- v) Set-up operations can be classified into \_\_\_\_\_ and \_\_\_\_\_.
- vi) \_\_\_\_\_ is a method of improving business performance by measuring, comparing and improving.
- vii) Good \_\_\_\_\_ are vital link in the supply chain.
- viii) The ability of a product to return to operating conditions after it has failed is called \_\_\_\_\_.

**Q.2. State True or False (Please do not reproduce the statement)**

- i) External safety can be measured through process capabilities.
- ii) In MBNQA the highest weightage is given to quality and operational results.
- iii) The term world-class manufacturing was introduced by Makell.
- iv) As a measure of world class quality, a class A manufacturer should have fewer than 500 defectives parts per million of any product it manufactures.
- v) External exchange of die can be achieved while the machine is running.
- vi) Waste is something that doesn't add value.
- vii) In a knban system flow takes place to upstream.
- viii) 'Absolutes of quality' are developed by Juran.

**Q.3. Expand the following.**

- i) ALDEP
- ii) CRP
- iii) ASRS
- iv) CNC
- v) TOC
- vi) SMED
- vii) CIM
- viii) CSF

**Q.4. Match A and B.**

- | A                      | B                   |
|------------------------|---------------------|
| i) TPM                 | a) Dependent demand |
| ii) MPS                | b) Benchmarking     |
| iii) MRP               | c) Shingo           |
| iv) Dantlotsu          | d) Warranty claims  |
| v) SMED                | e) OEE              |
| vi) Encoding           | f) Disaggregation   |
| vii) Poka-yoke         | g) Symbologies      |
| viii) External failure | h) SCARE            |

**PART B**

Q5. What are the characteristics of world-class customers? Enumerate the features of world class manufacturing shop floor practices.

Q.6. a) Explain Schonbergers framework of world class manufacturing.  
b) Explain Crosby's four absolutes of quality.

Q.7. a) Explain Group Technology highlighting its advantages.  
b) What is theory of constraints?

Q.8. a) Explain the concept of process capability.  
b) What is TPM?

Q.9. Write short notes any four.

- a) Flexible manufacturing
- b) Functions of kanban
- c) Cost of quality
- d) Malcolm Baldrige National Quality Award
- e) JIT manufacturing

## PART C

### Q.10

#### Case study

Maruti Udyog Limited (MUL), the leading manufacturer of cars in India is a leader in supplier relationship management. Its turnover was Rs 12,481.00 crores and its profit before tax was 1750 crore in 2005-06. It sold 5,61,822 vehicles in 2005-06 and captured a market share of over 55 percent. It deals with about 7100 components for its eleven major models. Seventy percent of its suppliers by numbers are located within 100 km radius of its Gurgaon plant. They meet more than 80 percent of Maruti's requirement by value.

Maruti has 220 approved vendors who supply the major components. The top 80 vendors supply 86 percent by value of their purchases. The rest of the vendors supply only 14 percent. It has also signed joint ventures with a large number of its vendors. Of the 86 percent components supplied by vendors, joint ventures supply only 34 percent; the rest of the 52 percent by value is supplied by other vendors. These 80 vendors are considered strategic partners. Only 20 to 30 of them are Maruti joint ventures.

With strategic partners, Maruti has a number of programmes. Their emphasis is on vendor productivity and quality. Maruti takes a major role in improving vendor productivity. It organizes *Junkai VA* or cost workshops with its vendors on an ongoing basis. *Junkai* is a Japanese word which basically means "visiting". It has 3 components called three G- *Genmab*, *Gembutsu*, and *Genjitsu*.

*Gemba* means taking a look to see what is happening at the site. *Gembutsu* means examining the affected piece to understand what exactly the defect is. *Genjitsu* means discussing under what conditions this has happened – something like a brainstorming session. Typically, a team from Maruti, along with the supplier team visits the supplier's shop floor, has a look around, noting down points. They then have a brainstorming session at the Maruti office. At the end of the brainstorming, they come out with various points relating to improvements in productivity, quality and cost.

Maruti also has constituted a group called Maruti Centre for Excellence. This is a team which continuously goes to suppliers to upgrade them. It audits the workings of its suppliers and comes out with a spider chart. The spider chart has 22 points. Each vendor is evaluated in these 22 points. Additional business is promised on the next new model to vendors who score over 60 percent on the spider chart. Every vendor really tries to make sure that he goes above this mark.

Apart from this, it has also started second tier improvement in a very big way. This was the latest initiative it took up a year ago. The result has been that the second tier vendor's quality has also gone up. It has also started 'green initiatives'. Accordingly, all packing has been converted into reusable packing. It recently introduced a practice to check the pollution levels of all the trucks getting into Maruti; if pollution levels were not right, then the trucks were sent back. This made its vendors understand that Maruti cared about the environment.

Further, it follows the Kaizen theme, which means to make it smaller, fewer, lighter, shorter, and beautiful. It follows this theme in its plant and has been continuously teaching this practice to its vendors. It conserves the usage of material and yield improvement. Moreover, along with CII and USAID, it has started a programme to help its suppliers get ISO 14000 certification. It has also started a programme on ELV compliance. Though this is not required in India, the idea is that by the time the requirement comes to India, Maruti's vendors will all be sufficiently equipped to take care of it. It also has a vendor finance cost reduction programme. It has lined up with banks to see that the loans of its suppliers are transferred to lower interest rates. Through these initiatives Maruti has become more agile and leaner.

In 2005-06, Maruti trained around 16 vendors and ultimately the savings of man hours per day came to 1580 man hours, which has resulted in a saving of over one crore rupees per annum. It was able to reduce component costs by 29 percent on the Alto alone from 2001 to 2005.

**Questions:**

- 1) What are the characteristics of a world class supplier?
- 2) How Maruti is trying to achieve the objectives of having world class suppliers?
- 3) Discuss the kind of relationship and the methods adopted by Maruti to achieve supplier relationship?