

# Gestion Industrielle 2 – DS



## Notation:

- **Good response:** All points of the question
- **Case of multiple responses:** Points as prorate of the number of good responses (Ex. The number of good responses is 2 from 4 possible responses for a question with 1 point. Each good response permit to obtain 0.5 points per responses. In opposite, if 3 responses were chosen, the 2 good responses permit to obtain 0.33 points per good response.)
- **No response:** -50% of points of the question
- **Bad response:** -25% of points of the question

## 1. What is the one main purpose of “GesIndus2”?

A	B	C	D	E
Knowing how to calculate sales forecasts	Knowing how to deal with S&OP	Knowing how to implement a Layout	Using Divalto	Other answer

## 2. What is a BOM?

A	B	C	D	E
A description of the process, step by step	A list of components	A key performance indicator	A technical data, useful for the net requirement calculation	None

## 3. Pick the right characteristic(s) of the Takt Time

A	B	C	D	E
An important data to estimate sales forecasts	A time that you must measure after your layout is done	A time that you must calculate, linked to the theoretical rhythm	Bigger than the lead time	Useful to manage the production

## 4. Pick the right advantage(s) of an assembly line compared to a modular assembly

A	B	C	D	E
Shorter lead time	Bigger workload	Easier to manage at high speed production rhythm	None	Less stocks of “in progress goods”

## 5. Who creates the BOP?

A	B	C	D	E
Design	Method	Logistic	Maintenance	Production

## 6. What information is relevant in a work instruction?

A	B	C	D	E
Required parts	Required tools	Required times	Your name and phone number	the dimensions of components

## 7. Which manager(s) usually contribute(s) to S&OP meetings?

A	B	C	D	E
Sales	Financial	Quality	Logistic	Production

## 8. S&OP is studying each ...

A	B	C	D	E
ERP	component	Finished good	Family of products	Global business
A	B	C	D	E
ERP	component	Finished good	Family of products	Global business

## 9. MPS is studying each ...

A	B	C	D	E
ERP	component	Finished good	Family of products	Global business
A	B	C	D	E
ERP	component	Finished good	Family of products	Global business

## 10. Net Requirement is calculated for each ...

A	B	C	D	E
ERP	component	Finished good	Family of products	Global business
A	B	C	D	E
ERP	component	Finished good	Family of products	Global business

## 11. Complete the sentence: “To respect the orders of my customers, the cycle times of each workstation must be ... the Takt Time”

A	B	C	D	E
Higher than	Lower than	Strictly equal to	Strictly different than	Friendly with
A	B	C	D	E
Higher than	Lower than	Strictly equal to	Strictly different than	Friendly with

## 12. Why would you want a safety stock of finished goods?

A	B	C	D	E
Avoid a sold out	Keep your workers safe	Having a good level of service	Decoration	Having some value in your inventory
A	B	C	D	E
Avoid a sold out	Keep your workers safe	Having a good level of service	Decoration	Having some value in your inventory

## 13. Why would you want stock of “in process goods” (=buffer stock)?

A	B	C	D	E
Avoid a burn out	Keep your workers working	Having a good level of stock	Divalto	Having some value in your layout
A	B	C	D	E
Avoid a burn out	Keep your workers working	Having a good level of stock	Divalto	Having some value in your layout

## 14. What is the profile of sale of calendars?

A	B	C	D	E
Consistent	Trendy	Seasonal	Trendy and Seasonal	Erratic
A	B	C	D	E
Consistent	Trendy	Seasonal	Trendy and Seasonal	Erratic

**15. What basic approaches would you pick to forecast the sales of calendars?**

A	B	C	D	E
Quantitative	Iterative	Contemplative	Qualitative	Temporal

**16. Select the methodologies linked to the qualitative approach?**

A	B	C	D	E
Consumer Survey	Moving Averages	Executive Opinion	Answer D	Trend Projection

**17. Pick the closest value of the sale forecast of April, using the moving averages methodology**

January: sales = 63 – February: sales = 45 – March: sales = 52

A	B	C	D	E
40	45	50	55	60

**18. What is the most evolved methodology of forecasting?**

A	B	C	D	E
Statistical abstraction	Machine learning	Demand planning	Darwin modelling	Advanced Procrastination

**19. What forecast do we calculate in a S&OP?**

A	B	C	D	E
Quality	Stocks	Finances	None	Production

**20. In case of overload in production, what can you do?**

A	B	C	D	E
Outsourcing activities	Hiring of salaries	Promotional actions	Temporary lay-off	Wait

**21. In case of underload in production, what can you do?**

A	B	C	D	E
Outsourcing activities	Hiring of salaries	Promotional actions	Temporary lay-off	Wait

**22. Which is the unit of the coefficient that allow you to convert the S&OP data in a monthly workload?**

A	B	C	D	E
No unit	$\frac{\text{€}}{\text{Day}}$	€	$\frac{\text{Salarie}}{\text{day}}$	$\frac{\text{Salarie}}{\frac{\text{day}}{\text{€}}}$

**23. What is the specificity of closed area in the MPS?**

A	B	C	D	E
you can change the production schedule	available planned products = 0	You need a key to access data	No new master planning (start date)	You can't receive firm orders

**24. What are the differences between MRP and MRP2?**

A	B	C	D	E
2	Management perimeter	M mean Material vs M mean Manufacturing	R mean Requirements vs R mean Resource	P mean Process vs P mean Planning

**25. Master Planning is ...**

A	B	C	D	E
A strategical level data	A tactical level data	An operational level data	A prerequisite for requirement calculation	A prerequisite for S&OP

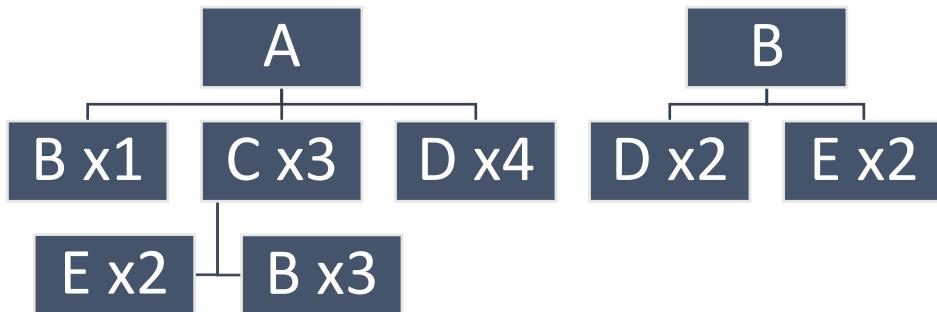
**26. What is true about the net requirement calculation?**

A	B	C	D	E
It calculates independent needs based on forecasts of dependent needs	It is usually done in an ERP (Divalto)	It forecasts independent needs	It calculates how many components you will need	It calculates the planification of production orders

**27. What is the delay in net requirement calculation schedule?**

A	B	C	D	E
The number of periods to obtain the product	The number of periods between the requirement and the launched order	The time required to make the calculation	Nothing	The total duration of the schedule

Analyse these dependent needs (Q28-32):



28. On which part would you run your first net requirement calculation?

A	B	C	D	E
A	B	C	D	E

29. ...your second one?

A	B	C	D	E
A	B	C	D	E

30. ...your third one?

A	B	C	D	E
E	D	C	B	A

31. You receive an order to produce 2x"A" and 5x"B". You can buy "E" by boxes of 15 components. How many Boxes will you buy, knowing that your stock of "E" is 20, and safety stock 0.

A	B	C	D	E
0	1	2	3	4

32. Last question was interesting! Let's make it a 2 points question, but I like to keep 1 point/question for the correction software... so please, repeat your last answer (or pick another one if you had some doubts) :)

A	B	C	D	E
0	1	2	3	4

### 33. What is true about proposed orders?

A	B	C	D	E
Calculated by the ERP	Come from the calculation of net requirement	Can't be rescheduled in closed area	Nothing	Rescheduled if requirements change

### 34. What is true about launched orders?

A	B	C	D	E
In progress and hard to reschedule	Exact quantity but no precise date	You can find them in the ERP	Nothing	Not necessary for a production

### 35. What is the main purpose of an industrial company?

A	B	C	D	E
Produce manufactured goods	Make money	Be a technical reference in its activities	Be socially and environmentally responsible	Make workers happy and involved in a common project

### 36. Having a bottleneck in an assembly line often mean that you are not well organized

A	B
True	False

### 37. What is important about a bottleneck in an assembly line?

A	B	C	D	E
Cycle Time $\leq$ Takt Time	Cycle Time $<$ Lead Time	Cycle Time $<$ Cycle Time of the previous workstation	Cycle Time $<$ Cycle Time of the next workstation	Buffer stock of required parts

### 38. According to queuing theory, what can help me to calculate the capacity used rate of a system?

A	B	C	D	E
Cycle time of the workstation	Takt Time of the line	Lead Time of the line	average of pieces coming to the workstation by unit time	Workload of the workstation

**39. Budgeting and Forecasting are similar activities, which are not done for the same periods and same reasons.**

A	B
True	False

**40. And to conclude... my Christmas / new year gift for everyone: one free point! ... Do you want it?**

A	B	C	D	E
I don't really need it: I'm so good!	Yes! And to deserve it, I'll check again that everything is well filled: student number (2 formats), promotion, date (2 formats), and that my answer's colours are dark enough	Unfortunately, I was too slow, and had no time to read this last question...	S&OP!!!	I cheated... I don't deserve it. Please report this to the education service