

University of Mumbai

Examination 2020 under cluster 4 (PCE)

Program: BE Mechanical Engineering

Curriculum Scheme: Rev2016

Examination: Fourth Year Semester VII

Course Code: MEC703 and Course Name: Production Planning and Control

Time: 1 hour

Max. Marks: 50

Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	Which of the following is a Production Planning activity?
Option A:	Routing
Option B:	Dispatching
Option C:	Expediting
Option D:	Corrective action
Q2.	It guides and directs the flow of production so that products are manufactured in the best way and conforms to a planned schedule and are of the right quality. Also it facilitates the task of manufacturing and sees to it that everything goes as per the plan.
Option A:	Production Planning
Option B:	Production Control
Option C:	Production Planning and Control
Option D:	Process Planning and Control
Q3.	The level of PPC activity is simplest in which of the following cases?
Option A:	Job Production
Option B:	Batch Production
Option C:	Mass Production
Option D:	Flow Production
Q4.	Time series analysis is most effective when used in _____ term forecasts.
Option A:	Indefinite
Option B:	Long
Option C:	Short
Option D:	Medium
Q5.	In an assembly line, when the workstation times are unequal, the overall production rate of an assembly line is determined by the:
Option A:	Fastest station time
Option B:	Slowest station time
Option C:	Average of all station times
Option D:	Average of slowest and fastest station times
Q6.	For a sports equipment manufacturer the long-term outlook is that demand will exceed capacity and in the short-term demand equals capacity. What decision should the operations manager take about recruitment and training of new operatives?

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Option A:	Make product for inventory.
Option B:	Work overtime and hire temporary staff.
Option C:	Delay action.
Option D:	Hire staff and make product for inventory.
Q7.	For a hospital, which of the following is NOT an output measure of capacity?
Option A:	The number of beds available.
Option B:	The number of items sold in the hospital shop.
Option C:	The number of patients treated by the A&E department .
Option D:	The number of scans provided.
Q8.	Measurement has revealed the following information on an operations system. Design capacity was 84 units per hour, planned losses were 12 units per hour, and actual output was 65 units per hour. What were the utilisation and efficiency of the operation respectively?
Option A:	77% and 90%
Option B:	77% and 84%
Option C:	54% and 92%
Option D:	68% and 83%
Q9.	In conventional economic batch size, important assumption is
Option A:	Constant lead time
Option B:	Constant demand
Option C:	Variable demand
Option D:	Variable lead time
Q10.	If EOQ = 1000 units, order costs are Rs.400 per order, and sales total 100 units per day, what is the carrying cost per unit per day?
Option A:	0.075
Option B:	0.08
Option C:	0.06
Option D:	0.9
Q11.	Conventional Economic Order Quantity(EOQ)
Option A:	Maintain balance between stock-out cost and safety stock cost
Option B:	Maintain balance between inventory carrying costs and ordering costs
Option C:	Maintain balance between inventory carrying costs and Stock out cost
Option D:	Maintain balance between shortage cost and ordering costs
Q12.	Demand of taillights 500 per year. Each time an order for taillights is placed, an ordering cost of Rs.5 is incurred. Each light costs Rs. 40, and the holding cost is Rs. 8 /light/year. Assume that demand occurs at a constant rate and shortages are not allowed. How many orders will be placed each year
Option A:	2
Option B:	3
Option C:	1
Option D:	2.5

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Q13.	Which of the following is not a feature of planning
Option A:	planning is futuristic
Option B:	planning is pervasive
Option C:	planning sets standards for controlling
Option D:	planning focuses on achieving objectives
Q14.	Benefits of computer aided process planning
Option A:	increase process planning time
Option B:	Increase productivity
Option C:	decreased high flexibility
Option D:	produced error in plans
Q15.	Macro process planning includes
Option A:	review of common machining processes
Option B:	process optimization
Option C:	optimum tool path
Option D:	prediction of machining performance
Q16.	Which one of the following chart gives simultaneously information about the progress of work and machine loading?
Option A:	Process chart
Option B:	Machine load chart
Option C:	Man-machine chart
Option D:	Gantt chart
Q17.	PERT and CPM are
Option A:	techniques to determine project status
Option B:	decision making techniques
Option C:	charts which increase aesthetic appearance of rooms
Option D:	Aids to the decision maker.
Q18.	The critical path of a network represents
Option A:	the minimum time required for completion of project
Option B:	the maximum time required for completion of project
Option C:	maximum cost required for completion of project
Option D:	minimum cost required for completion of project
Q19.	Slack of various events on the critical path in PERT/CPM chart
Option A:	increases continuously
Option B:	decreases continuously
Option C:	may increase or decrease depending on various factors
Option D:	remains always zero
Q20.	The assumption in PERT is
Option A:	a project will always be behind schedule, if left uncorrected
Option B:	cost of project will always be more than the estimated cost, if no timely corrections are taken
Option C:	a project can be subdivided into a set of predictable, independent activities

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Option D:	Commissioning time can be changed, if activities are behind schedule.
Q21.	Which of the following statements is true?
Option A:	The standard deviation of a project completion time is the sum of the standard deviations for the critical path activities
Option B:	Three time estimates are necessary so that we can estimate the parameters of the Beta distribution.
Option C:	The variance of the time taken to complete an activity is equal to $(b - a)/6$.
Option D:	The critical path is the path with the largest probability of being completed on time.
Q22.	Use the information presented in the following figure to do the following: Determine the quantities of D needed to assemble one X.
	<p>Level</p> <p>0</p> <p style="text-align: center;">X</p> <p>1</p> <p style="text-align: center;">B (2) C</p> <p>2</p> <p style="text-align: center;">D (3) E E (2) F (2)</p> <p>3</p> <p style="text-align: center;">E (4)</p>
Option A:	5
Option B:	6
Option C:	8
Option D:	3
Q23.	The ----is the MRP input detailing which end items are to be produced when they are needed and in what quantities
Option A:	master production schedule
Option B:	gross requirements
Option C:	inventory records
Option D:	assembly time chart
Q24.	In continuous operations, the master production schedule is usually expressed in terms of
Option A:	end items
Option B:	modules
Option C:	kits
Option D:	customer orders
Q25.	Enterprise Resource Planning is
Option A:	severely limited by current MRP computer systems
Option B:	not related to MRP
Option C:	an advanced MRP II system that ties in customers and suppliers
Option D:	not currently practical

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Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	A
Q2.	B
Q3.	D
Q4	C
Q5	B
Q6	D
Q7	A
Q8.	A
Q9.	B
Q10.	B
Q11.	B
Q12.	A
Q13.	C
Q14.	B
Q15.	A
Q16.	C
Q17.	D
Q18.	B
Q19.	D
Q20.	C
Q21.	B
Q22.	B
Q23.	A
Q24.	D
Q25.	C