Program: BE Mechanical Engineering
Curriculum Scheme: Rev2012
Examination: Fourth Year Semester VII
Course Code: MEC704 and Course Name: Production Planning and Control

Time: 1 hour   Max. Marks: 50

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

Q1.	It is a macro level planning activity and deals with the analysis of data; and it gives an outline of the planning policy based upon the Forecasted demand; Market analysis; and Product Design and Development.
Option A:	Pre-Planning
Option B:	Planning
Option C:	Control
Option D:	Planning and Control
Q2.	Which of the following is an example of a product made in Batch Production?
Option A:	Customized birthday cake
Option B:	Bottled soft drink
Option C:	Newspaper
Option D:	Ships
Q3.	Which of the following is an example of a product made in Flow Production setup?
Option A:	Soft drink production
Option B:	Furniture
Option C:	Electronic goods
Option D:	Roads
Q4.	_____ Can help us to detect poor E-R design
Option A:	Database Design Process
Option B:	E-R Design Process
Option C:	Relational scheme
Option D:	Functional dependencies
Q5.	Designers use which of the following to tune the performance of systems to support time-critical operations?
Option A:	Denormalization
Option B:	Redundant optimization
Option C:	Optimization
Option D:	Realization

Q6.	If a multivalued dependency holds and is not implied by the corresponding functional dependency, it usually arises from one of the following sources.
Option A:	A many-to-many relationship set
Option B:	A multivalued attribute of an entity set
Option C:	A one-to-many relationship set
Option D:	Both A many-to-many relationship set and A multivalued attribute of an entity set
Q7.	Arranging Customer names in ascending order is an example of
Option A:	Process
Option B:	Information Processing
Option C:	Process
Option D:	Information
Q8.	Q type replenishment system is related to
Option A:	Fixed period
Option B:	Quality
Option C:	Fixed quantity
Option D:	Contract
Q9.	If EOQ = 1200 units, order costs is Rs. 60 per order, and carrying costs is Rs.1 per unit, what is the annual usage in units?
Option A:	10000
Option B:	11200
Option C:	12000
Option D:	13500
Q10.	A bill of materials lists the
Option A:	times needed to perform all phases of production
Option B:	production shcedule for all products
Option C:	components, ingradients and materials required to produce an item
Option D:	operations required to produce an item
Q11.	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
Q12.	Production cost per unit can be reduced by
Option A:	producing more with more input
Option B:	producing more with same input

Option C:	eliminating idle time
Option D:	minimizing resource waste
Q13.	Time series analysis is most effective when used in_____term forecasts.
Option A:	Indefinite
Option B:	Long
Option C:	Short
Option D:	Medium
Q14.	The least predictable pattern of time series variation is called:
Option A:	Trend
Option B:	Horizontal
Option C:	Seasonal
Option D:	Random
Q15.	Sum of weights in exponential smoothing is _____.
Option A:	<1
Option B:	1
Option C:	>1
Option D:	no definite value
Q16.	We add …… variables 'to greater than or equal to' constraints to convert them to equalities.
Option A:	surplus
Option B:	slack
Option C:	artificial
Option D:	surplus and artificial
Q17.	The outgoing variable in a simplex pivot operation is the variable with :
Option A:	The least replacement ratio
Option B:	A negative replacement ration
Option C:	Maximum positive replacement ratio
Option D:	The least positive replacement ratio
Q18.	According to the algebra of simplex method ,slack variables are assigned zero coefficients because
Option A:	no contribution in objective function
Option B:	high contribution in objective function
Option C:	diviser contribution in objective function
Option D:	base contribution in objective function
Q19.	If values all m basic variables are non-zero and positive,a basic feasible

	solution is called …
Option A:	Infeasible
Option B:	Unbounded
Option C:	Degenerative
Option D:	Non degenerative
Q20.	In transportation problem solution a degeneracy may occur when :
Option A:	At optimality ,an unoccupied cell has an opportunity cost of zero
Option B:	The number of occupied cell is less than m+n-1
Option C:	The demand is not equal to supply
Option D:	The m+n -1 allocations are not independent
Q21.	In transportation problem solution the closed path has the following charasteristics except :
Option A:	It links unoccupied cell to itself
Option B:	Movement on the path occur horizontally ,vertically or diagonally
Option C:	All corners of the path must be occupied cells except for the starting unoccupied cell
Option D:	The path may skip over occupied cells
Q22.	The performance of a specific task in CPM is known as
Option A:	dummy
Option B:	event
Option C:	**activity**
Option D:	contract
Q23.	The probability distribution of activity times in PERT follows following distribution
Option A:	normal
Option B:	binomial
Option C:	beta
Option D:	exponential
Q24.	If the operation selects a sequencing approach purely on practical reasons for an activity such as unloading cases from an aircraft, it may choose
Option A:	Longest operation time first
Option B:	Due date
Option C:	First in first out
Option D:	Last in first out
Q25.	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

University of Mumbai

Examination 2020 under cluster 4 (PCE)

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