

These are sample MCQs to indicate pattern, may or may not appear in examination

## University of Mumbai

### Online Examination 2020

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VIII

Course Code: MEC802 and Course Name: Industrial Engineering and Management

Time: 1hour

Max. Marks: 50

**Note to the students:-** All the Questions carry equal marks .

Q IEM is an \_\_\_\_\_ system

A Isolated

B Integrated

C Ideal

D Idle

\_\_\_\_\_ named as father of scientific

Q management

A Taylor

B Smith

C Jones

D Robinson

Q Industrial Engineering techniques are useful to

A Manufacturing only

B Service only

C Both Manufacturing and Service

D Packaging only

Q Industrial Engineering is

contributing \_\_\_\_\_ towards increasing

Q productivity

A Maximum

B Minimum

- C Optimum  
D Nothing
- Q Steam engine advanced the use of \_\_\_\_\_power to increase productivity  
A Electrical  
B Hydraulic  
C Mechanical  
D Solar
- Q \_\_\_\_\_has developed micro motion study  
A Babbage  
B Gantt  
C Taylor  
D Gilbreth
- Q Gilbreth has developed \_\_\_\_\_study as tool  
of work analysis  
A Method  
B Human  
C Material  
D Financial
- Q Division of labor concept was introduced by  
A Taylor  
B Gilbreth  
C Arkwright  
D Smith
- Q Concept of work sampling is developed by  
A Emerson  
B Tippett  
C Robinson  
D Smith

- \_\_\_\_\_ technique helps to evolve sound
- Q wage policy  
A Job evaluation  
B Value evaluation  
C Inventory evaluation  
D Machine evaluation
- The economic lot size and re-order level for
- Q item is determined in  
A Job evaluation  
B Inventory evaluation  
C Value evaluation  
D Machine evaluation
- \_\_\_\_\_ is concerned with relationship
- Q between working and stress of worker  
A Ergonomics  
B Economics  
C Econometric  
D Electrolysis
- \_\_\_\_\_ help to achieve optimisation in
- Q Industrail Engineering  
A Value analysis  
B System analysis  
C OR techniques  
D Value Engineering
- Prodcutivity is \_\_\_\_\_ technique
- Q  
A Qualitative  
B Judgemental  
C Survilance  
D Quantitatvie
- Prodcutivity is equal to
- Q  
A input/output  
B output/input  
C inputXoutput

D input+output  
Total productivity/Labor productivity ration is known as  
Q  
A Total productivity  
B Labor productivity  
C Material Productivity  
D Capital productivity

If company produces goods worth of 1 crore using an investment of 1.3 crore, what is its productivity?  
Q  
A 67.92%  
B 86.92%  
C 76.92%  
D 96.92%

This is not correct in case of value engineering  
Q  
A Reduce the cost of the product  
B Simplify the product  
C Use (new) cheaper and better materials  
D Initiates theERP

Value engineering is applied in \_\_\_phase  
Q  
A design  
B introduction  
C maturity  
D decline

Value analysis is applied in case of \_\_\_product  
Q  
A duplicate  
B existing  
C secondary product  
D inexpensive

Value Engineering applied in \_\_\_phase  
Q  
A end

B design  
C mid  
D manufacturing

Q This is not correct related to value engineering

A Value engineering focuses on cost  
B Value engineering focuses on function  
Value engineering increases the performance/utility of the product by economical means.  
C  
D Value engineering is ERP software

Q Basic function of car is \_\_\_\_  
A mobility  
B aesthetics  
C ergonomics  
D colour

Q Basic function of table is \_\_\_\_  
A to provide base or surface  
B aesthetics  
C ergonomics  
D colour

Q Basic function of pencil is \_\_\_\_  
A to provide eraser  
B to provide good aesthetics  
C to mark on paper  
D to provide good colour

Q Basic function of mobile phone is \_\_\_\_  
A to communicate or call  
B to provide good camera  
C to provide high quality display  
D to provide good aesthetics

Q \_\_\_\_ functions are supportive to basic functions in value engineering

A Primary  
B Secondary  
C Duplicate  
D Linear  
Q Value is inversely proportional to \_\_\_\_  
A function  
B cost  
C ergonomics  
D aesthetics  
Q Implementation and monitoring is \_\_\_\_ phase in  
value engineering  
A Initial  
B Design  
C final  
D middle  
Q Finalising the objectives is \_\_\_\_ phase in value  
engineering  
A Initial  
B Design  
C final  
D middle  
Q Value analysis is a \_\_\_\_ process  
A initial  
B remedial  
C continuous  
D discontinuous  
Q Basic function of water tank is \_\_\_\_  
A to provide coolness  
B to carry water  
C to give good aesthetics  
D to provide good colour  
Q Value engineering focuses on  
A cost optimization

- B supply chain management  
C agile manufacturing  
D lean manufacturing
- Value engineering aims at finding out  
Q the \_\_\_\_\_  
A depreciation value of a product  
B resale value of a product  
C break even point when machine re-quires change  
D major function of the item and accomplishing the same at least cost without change in quality
- Queing theory is relates with  
Q  
A Inspection time  
B Waiting time  
C Production time  
D Sales
- In work study which of the following element is useful  
Q  
A Planning chart  
B Graph paper  
C Stop watch  
D Process chart
- What will be the rating factor in time study  
Q  
A Fixation of incentive rate  
B Standard time of a job  
C Merit rating of the worker  
D Normal time of a worker
- Time study was invented by  
Q  
A H.L. Gantt  
B F.B. Gilbert  
C R.M. Barnes  
D F.W. Taylor

- Q Best way to calculate standard time for complex jobs is by
- A Grouping timing technique
- B Analysis of standard data system
- C Stop watch time study
- D Analysis of micromotions
- Q Choose the INCORRECT statement. Motion study can be useful for
- A Improvising a work method
- B Reducing inventory costs.
- C Improving a work method
- D Designing a work method
- Q Normal time as compared with standard time is
- A Equal
- B Smaller
- C Moderate
- D Greater
- Q Job evaluation is the method of determining the
- A Relative values of a job
- B Worker's performance on a job
- C Worth of the machine
- D Value of overall production
- Q In Time Measurement Unit (TMU) Unit Time is described as
- A 0.06 minute.
- B 0.006 minute
- C 0.0006 minute
- D Minute
- Q How many hand motions are considered in Micromotion Study
- A 18
- B 16
- C 14
- D 12
- Q Symbol 'O' in work study stands for
- A Delay
- B Inspection



- C Operation  
D Transport  
Q Apprenticeship Act' is applicable for the following industries  
A Industries have to train apprentices according to their requirement  
B Only industries employing more than 500 workers have to recruit apprentices  
C All industries have to necessarily train the apprentices  
D All industries employing more than 100 workers have to recruit apprentices  
Q With the help of Gantt chart, we can represent  
A Proper utilization of manpower  
B Production schedule  
C Material handling  
D Efficient working of machine  
Q The appellate authority for an industrial dispute will come under  
A High / Supreme Court  
B Labour Court  
C Management  
D Board of directors  
Q The colour indication for 'search' is THERBLIGS THEORY is  
A Yellow  
B Green  
C Red  
D Black  
Q Choose the correct sequence for 'Method Study'  
A Select – Define – Examine – Develop – Record –  
Install – Maintain  
B Select – Record – Develop – Examine – Define –  
Install – Maintain  
C Select – Record – Examine – Define – Develop –  
Install – Maintain  
D Select – Record – Examine – Develop – Define –  
Install – Maintain  
Q In THERBLIGS, Abbreviation used for 'Disassemble' is represented by  
A DA

B	DE
C	DS
D	D
Q	In ergonomics,ergon is
A	Aesthetic
B	Method
C	Work
D	Time
Q	Purpose of ergonomics is to give
A	Allowances
B	Nice look to product
C	Comfort
D	Better design
Q	Anthropometry is important to study for
A	Work station design
B	Product design
C	Time study
D	Production measurment
Q	In ergonomics,nomos means
A	Laws of work
B	Principles of work
C	Laws of industry
D	Principle of industry
Q	Psychology of employee is studied during
A	Work design
B	Product design
C	Workbench design
D	Reces
Q	Human dimensions during work is related with
A	Incentives
B	Allowances
C	Anthropometry

D	Aesthetic
Q	Comparison of jobs is done to do
A	Analysis
B	Evaluation
C	Designing
D	Report
Q	Musculoskeletal disorder example is
A	Back pain
B	Unskilled labour
C	Job failure
D	Defective jobs
Q	Which is not seen in anthropometry
A	Body dimension
B	Hand movement
C	Leg movement
D	Skill
Q	Incentives are given---
A	Long term
B	Short term
C	Always
D	With bonus
Q	For heavy work workbench height is----than heavy work
A	Less
B	More
C	Similar
D	Average
Q	The amount of the bonus is normally given
A	Every month
B	After training
C	Occasionally
D	After every two years

Q Training and workshops can lead to  
A Better work skill and avoids injury and accidents  
B during work  
C Better work knowledge  
D Leads to injury and accidents during work  
Q Increase in payment  
A Business process reengineering is  
B Root cause analysis  
C Radical redesign  
D Rational design  
Q Recurring design  
A Correct position during work gives  
B Increase in MSD  
C Enhances skills  
D Poor skills  
Q Reduce in MSD  
A Psychology concerned with  
B Business process reengineering  
C Ability to work  
D Human information processing and decision  
Q making  
A Efficiency to work  
B Business process reengineering gives  
C Slow results  
D Dramatic results  
Q Fast results  
A Poor results  
B If all the processing equipment and machines  
C are arranged according to the sequence of  
D operations of a product the layout is known as  
Q Product layout  
A Process layout  
B

- C Fixed position layout  
D Combination layout
- The following type of layout is preferred for low volume production of non standard products
- Q  
A Product layout  
B Process layout  
C Fixed position layout  
D Combination layout
- Q Process layout is employed for  
A Batch production  
B Continuous type of product  
C Effective utilisation of machines  
D Low production
- Q A low unit cost can be obtained by following  
A Product layout  
B Functional layout  
C Automatic material handling equipment  
D Specialisation of operation
- Q Which of the following layouts is suited for mass production  
A Process layout  
B Product layout  
C Fixed position layout  
D Plant layout
- Q The following cell formation technique is based on Component shape and design?  
A Production flow analysis  
B Component flow analysis  
C Composite component  
D Simulation
- Q For handling material during manufacturing of cement which material handling equipment is widely used.  
A Belt conveyor

B Bucket conveyor

C Fork lift truck

D Overhead crane

The use of computers to control the operation of production process is known as:

Q

A CAD

B CAE

C CAM

D CAQ

The transportation model method that is used to evaluate location alternatives minimizes total.

Q

A Sources

B Destinations

C Capacity

D Shipping costs

Which of these layouts is most suitable for processing sugar from sugar beets or sugar cane?

Q

A Process-oriented layout

B Fixed-position layout

C Focused factory

D Product-oriented layout

In cell formation using production flow analysis, following process will be left out of analysis

Q

A Grinding

B Milling

C Drilling

D Gear cutting

The following is supported from the ceilings

Q

A Roller conveyor

B Belt conveyor  
C Chain conveyor  
D Slat conveyor  
Q Routing is essential in the following type of industry  
A Assembly industry  
B Process industry  
C Job order industry  
D Mass production industry  
This chart is a graphic representation of all the  
production activities occurring on the shop  
floor  
Q  
A Operation process chart  
B Flow process chart  
C Templates  
D Pie chart  
Q Gantt chart provides information about the  
A Material handling  
B Proper utilization of manpower  
C Production Schedule  
D Efficient working of machine  
Q Scheduling gives information about  
When work should start and how much work  
should be completed during certain period  
A  
B When work should complete  
C That how idle time can be minimised  
D Proper utilisation of machines  
Space available in vertical and horizontal  
directions is most effectively utilised is known  
as principle of  
Q  
A Cubic space utilisation  
B Flexibility  
C Flow

D Minimum distance  
What type of report provides a bird's-eye view of the project. It may be produced when the teams updates their release plan, and will allow them to show their progress and predict a completion date.

A A Burn-up chart

B A Time Usage Chart

C An Iteration Plan

D A Management Report

Collaboration requires that the team must take joint responsibility for their work. In order for this to effectively take place, what must the team members build?

Q

A A definition of done

B Continuous flow

C Trust

D An information radiator

In Agile development, when a developer estimates a story point by gauging the amount of effort required to complete a task based on the amount of time she will have to focus exclusively on the task, with no interruptions, what estimate unit is she using?

Q

A Ideal Time

B Velocity

C Alternative Time

D Time box

What two things should be completed before moving on to the next iteration planning begins?

Q



- A the commitment ceremony and an iteration demo
- B emergency request and an iteration demo
- C a retrospective and the commitment ceremony
- D an iteration demo and a retrospective

This high-level initial estimate of the requirements is maintained by the Project Owner throughout the entire project. It is dynamic because management can constantly change it to reflect the needs of an evolving product, and its environment.

- Q
- A A Timebox
- B A Product Backlog
- C An Iteration
- D A Sprint Backlog

The intersection of a trend line for work remaining (or backlog) and the horizontal axis indicating the most probable completion of work at the point in time would be found in which graphical chart?

- Q
- A Burn-up chart
- B Velocity graph
- C Burndown chart
- D Execution chart

During this Team meeting everyone provides a status update to the other team members. It a 10-15 minute semi-real-time' status meeting that allows participants to become aware of potential challenges as well as coordinate efforts to resolve difficult and/or time-consuming issues.

Q

A

Brevity Meetings

B

Collaboration Meeting

C

Brown Bag Meetings

D

Daily Stand-ups

When a Team takes the opportunity to gather for a meeting and reflect on situations they encountered during a project, in an effort to better align their processes with their changing situations, what Agile tool are they said to be using?

Q

A

A contingency review

B

Brainstorming

C

A lessons learned Scrum

D

A retrospective

Which of the following is not part of the Manifesto for Agile Software Development

Q

A

Teams and interactions over processes and tools

B

Working software over comprehensive documentation

C

Customer collaboration over contract negotiation

D

Responding to change over following a plan

The following formula represents what in the Net Present Value (NPV) calculation?

- Q (1+i)<sup>-t</sup>
- A The amount by which the future net cash flow will be incremented over a release.
- B The amount by which the present net cash flow will be discounted.
- C The amount by which the future net cash flow will be discounted.
- D The sum of the current net cash flow will be discounted.

By writing features to minimize technical dependencies between them the product owner has the greatest amount of flexibility to do what them?

- Q weigh
- A constrain
- B prioritize
- C assign to developers

Which of the following is a characteristic of an Agile leader?

- Q Task focused
- A Process oriented
- B Supportive
- C Disinterested

Who is responsible for prioritizing the product backlog?

- Q Product Owner
- A Project Manager
- B Lead Developer
- C Tester

Q Tracking project issues in an Agile project is the primary responsibility of the...

A Tester

B Project Leader

C Functional Manager

D Developer

Q Why is it important to trust the team?

A High trust teams do not have to be accountable to each other

B High trust teams do not require a user representative

C The Project Manager does not have to keep a project schedule

D The presence of trust is positively correlated with the team performance

Q What is the best approach for running an effective workshop?

A Presentation

B Oratory

C Facilitation

D Lecture

Q Which of the following best represents the Agile approach to planning?

A Planning is a waste of time and should not be done

B Planning should be done in detail at the outset and then not revisited

C Planning is an iterative job and involves the whole team

D Planning should all be done by the Project Manager

Q What is the effect of having large visible project plan on a wall?

- A It is a fire risk and a health hazard
- B It communicates progress to the team and other stakeholders
- C It is dangerous, as management will misinterpret what the team is doing
- D It is useless, as it does not allow the team to innovate