



BHARTIYA SKILL DEVELOPMENT UNIVERSITY

Registration No.:

School of Manufacturing Skills

Session: 2021-22 (Winter Semester)

B. Voc. Program, V Semester,

1st In-Sem. Examination

Course Code: SMS1501

Time: 1 Hour

Course Name: Production Management

Max. Marks: 20

Instructions:

1. Attempt all questions.
2. Use of Calculator is allowed.
3. Section A contains 05 Questions. Each question carries 1 Mark.
4. Section B contains 03 Questions. Each question carries 2 Marks.
5. Section C contains 03 Questions. Each question carries 3 Marks.

Section – A

05X01 = 05 Marks

1. Effective Demand means:
(a) The amount consumers desire (b) Must be able to pay (c) Must be willing and able to pay
(d) None of the above
2. Macro Economics belongs to:
(a) Average economics (b) Whole economics (c) Individual economics
(d) None of the above
3. Consumers means:
(a) Customer (b) Seller (c) Business Owner (d) None of the above
4. In case of Perfectly elastic demand, the curve shape is
(a) vertical (b) flat (c) horizontal (d) None of the above
5. In case of Perfectly Elastic Demand, the degree of responsiveness is equal to:
(a) Infinity (b) Zero (c) One (d) None of the above

Section – B

03X02 = 06 Marks

6. Explain demand curve with graph.
7. Write down the factors influencing the demand of big (50") fridge in Indian market.
8. Yesterday, the price of envelopes was \$5 a box, and Ram was willing to buy 10 boxes. Today, the price has gone up to \$6 a box, and Ram is now willing to buy 8 boxes. What is Ram's elasticity of demand?

Section – C

03X03 = 09 Marks

9. The annual sales of Pen Drive manufacturing industry during the period of 2010-2019 are given below in tabular form. We have to find out the trend of the sales using 4 years moving averages method and forecast the value for the year 2020.

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Sales in Rs. Lakhs	13	16	16	18	20	22	19	21	?



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10. What do you mean by Elasticity of Demand? Explain various types of Elasticity of Demand.
11. Explain in detail the Delphi Method of Forecasting.

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Answer Key

Section – A

05X01 = 05 Marks

1. Effective Demand means:
(a) The amount consumers desire (b) Must be able to pay (c) Must be willing and able to pay
(d) None of the above
Ans. C
2. Macro Economics belongs to:
(a) Average economics (b) Whole economics (c) Individual economics
(d) None of the above
Ans. (b) Whole economics
3. Consumers means:
(a) Customer (b) Seller (c) Business Owner (d) None of the above
Ans. (a) Customer
4. In case of Perfectly elastic demand, the curve shape is
(a) vertical (b) flat (c) horizontal (d) None of the above
Ans. (c) horizontal
5. In case of Perfectly Elastic Demand, the degree of responsiveness is equal to:
(a) Infinity (b) Zero (c) One (d) None of the above
Ans.: (a)

Section – B

03X02 = 06 Marks

6. Explain demand curve with graph.
Ans. When cost is increasing, demand is decreasing and vice-versa.
7. Write down the factors influencing the demand of big (50") fridge in Indian market?
Ans.: D = (Price, Income, Tastes, Popularity, Advertising, Expectations of consumers)
8. Yesterday, the price of envelopes was \$5 a box, and Ram was willing to buy 10 boxes. Today, the price has gone up to \$6 a box, and Ram is now willing to buy 8 boxes. What is Ram's elasticity of demand?



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Ans.: $EOD = \frac{\{(8-10)/10\}}{\{(6-5)/5\}} = -1$

Section – C

03X03 = 09 Marks

9. The annual sales of Pen Drive manufacturing industry during the period of 2010-2019 are given below in tabular form. We have to find out the trend of the sales using 4 years moving averages method and forecast the value for the year 2020.

Year	2012	2013	2014	2015	2016	2017	2018	2019	2020
Sales in Rs. Lakhs	13	16	16	18	20	22	19	21	?

Ans.: Demand forecast for 2020 = $(20+22+19+21)/4 = 20.5 = 21$

10. What do you mean by Elasticity of Demand? Explain various types of Elasticity of Demand.

Ans.: The law of demand tells us that as the price of a commodity falls, the quantity demanded increases, and *vice versa.* (Eg. Gold).

Perfectly elastic demand (At a given price or less than the given price, infinite qty will be bought)

Perfectly inelastic demand (Same qty will be bought at any price)

Demand with unity elasticity (Equally proportionate demand for proportionate change)

Relatively elastic demand (More than proportionate demand due to price change)

Relatively inelastic demand (less than proportionate demand due to price change)

11. Explain in detail the Delphi Method of Forecasting

Ans.

The most primitive method of forecasting is *guessing*.

Delphi is used for long-range forecast.

It is generally used for

new product demand,

technological forecast for new technology,

effect of scientific advances,

changes in society,

changes in competitive environment, etc.

For example, the effect of internet/intranet or information-highway in the educational system of India in next 25 years may be forecasted through this approach.



School of Manufacturing Skills

Session: 2021-22 (Winter Semester)

B. Voc. Program, V Semester,

1st In-Sem. Examination

Course Code: SMS1502

Time: 1 Hour

Course Name: Integrated CAD-CAM-CNC

Max. Marks: 20

Instructions:

1. Attempt all questions.
2. Use of Calculators is Prohibited.
3. Section A contains 05 Questions. Each question carries 1 Mark.
4. Section B contains 03 Questions. Each question carries 2 Marks.
5. Section C contains 03 Questions. Each question carries 3 Marks.

Section – A

05X01 = 05 Marks

1. Which among the following is the correct full form of CAD?
 - a) Computer Aided Drawing
 - b) Computer Aided Design
 - c) None of these
 - d) Both of these
2. Master CAM is owned by
 - a) CNC Software Inc.
 - b) Dassault
 - c) Autodesk
 - d) Sandvik
3. Master-CAM has been developed by which of the following company?
 - a) CNC Software Inc.
 - b) Dassault
 - c) Autodesk
 - d) Sandvik
4. Which of the following is not the manual ISO coding platform?
 - a) Fanuc
 - b) Siemens
 - c) Heidenhain
 - d) None of the above
5. Which among the following was the first CAD software in the world (still in use)?
 - a) AutoCAD
 - b) AutoCADD
 - c) Solid works
 - d) CATIA



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Section – B

03X02 = 06 Marks

6. Write down the full form of CAPP and name the software's which are used to achieve this in industry?
7. Mention the name of any two programming languages which are popularly used as a CAE tool?
8. Write down the Full form of AutoCAD and the year in which it was released by Autodesk?

Section – C

03X03 = 09 Marks

9. Describe, how are In-built CAM software's are different from Standalone CAM software?
10. Describe different types of CAM software's with one example each.
11. Differentiate between drafting and modeling software's with suitable examples.



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Registration No.:

School of Manufacturing Skills

Session: 2021-22 (Winter Semester)

B. Voc. Program, V Semester,

1stIn-Sem. Examination

Course Code: SMS1502

Time: 1 Hour

Course Name: Integrated CAD-CAM-CNC

Max. Marks: 20

Answer Key Section – A

05X01 = 05 Marks

1. Which among the following is the correct full form of CAD
 - a) Computer Aided Drawing
 - b) Computer Aided Design**
 - c) None of these
 - d) Both of these
2. Master CAM is owned by
 - a) CNC Software Inc.
 - b) Dassault
 - c) Autodesk
 - d) Sandvik**
3. Master-CAM has been developed by which of the following company.
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4. Which of the following is not the manual ISO coding platform.
 - a) Fanuc
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5. Which among the following was the first CAD software in the world (still in use)
 - a) AutoCAD**
 - b) AutoCADD
 - c) Solid works
 - d) CATIA

Section – B

03X02 = 06 Marks

6. Write down the full form of CAPP and name the software's which are use to achieve this in industry?

Computer Aided Process Planning, Microsoft Excel, Dassault 3D experience platform



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7. Mention the name of any two programming languages which are popularly used as a CAE tool?

Python and MATLAB

8. Write down the Full form of AutoCAD and the year in which it was released by Autodesk?

Automate Computer Aided Design, 1982

Section – C

03X03 = 09 Marks

9. Describe, How are In-built CAM software's are different from Standalone CAM software?

Types:

- **standalone softwares:software which is not built for a particular type of CNC machine, they support ISO programming (G,M codes) e.g. :Master CAM**
- **in built software's: these are inbuilt and attached with their CNC machines e.g.: MAZATROL, STAR software, Siemens controller**
- **integrated software's: these CAM software's are tightly attached with their PLM e.g.: NX cam and CATIA cam**

10. Describe different types of CAM software's with one example each?

Drafting softwares are primarily used for creating 2D drawings while Modelling Softwares are used for modelling purpose i.e. for creating 3D models of physical Objects for e.g.: Autocad is drafting while Solidworks is modelling software

11. Differentiate between drafting and modeling software's with suitable examples?

Types:

1. **standalone softwares:software which is not built for a particular type of CNC machine, they support ISO programming (G,M codes) e.g.:MasterCAM**
2. **in built software's: these are inbuilt and attached with their CNC machines e.g: MAZATROL, STAR software, Siemens controller**



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Registration No.:

School of Manufacturing Skills

Session: 2021-22 (Winter Semester)

B. Voc. Program, V Semester,

1st In-Sem. Examination

Course Code: SMS1505

Course Name: Quality Management

Time: 1 Hour

Max. Marks: 20

Instruction:

1. Attempt all questions.
2. Section A contains 5 Questions. Each question carries 1 Marks.
3. Section B contains 3 Questions. Each question carries 2 Marks.
4. Section C contains 3 Questions. Each question carries 3 Marks.

Section -- A

05X01 = 05 Marks

1. In any process, variability is due to:
 - A. Selected cause
 - B. Technical cause
 - C. Chance cause and assignable cause
 - D. None of the above
2. PDCA cycle have
 - A. 12 steps
 - B. 11 steps
 - C. 10 steps
 - D. 13 steps
3. Which of the following is not among 7 QC tools?
 - A. Check sheet
 - B. Histogram
 - C. Kanban
 - D. Pareto chart
4. Which of the following is correct in context to Inspection?
 - A. It is a way to prevent the production of bad items
 - B. Inspection adds to the cost of the product but not for its value
 - C. Fatigue and Monotony don't affect any inspection judgment
 - D. None of above
5. The cause and effect diagram is also called-
 - A. Stratification analysis
 - B. Total quality management
 - C. PDCA technique
 - D. Fish - bone diagram



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Section – B

03X02 = 06 Marks

6. What is the quality of any product?
7. Write any two purpose of inspection.
8. Define quality assurance.

Section – C

03X03 = 09 Marks

9. What is the significance of quality tools? Write down 7QC tools.
10. Write at least six characteristics of quality circle.
11. Explain fish bone diagram with an appropriate example.



BHARTIYA SKILL DEVELOPMENT UNIVERSITY

School of Manufacturing Skills

Session: 2020-21 (Winter Semester)

B. Voc. Program, 5th Semester,

1st In-Sem. Examination

Course Code: SMS1505

Course Name: Quality Management

Time: 1 Hour

Max. Marks: 20

Answer Key

Section – A

05X01 = 05 Marks

1. In any process variability is due to
C. Chance cause and assignable cause
2. PDCA cycle have
A. 12 steps
3. Which of the following is not among 7 QC tools?
C. Kanban
4. Which of the following is correct in context to Inspection?
B. Inspection adds to the cost of the product but not for its value
5. The cause and effect diagram is also called
D. Fish - bone diagram

Section – B

03X02 = 06 Marks

6. What is the quality of any product?

Ans.

The totality of feature and characteristics of a product or service that bears on its ability to satisfy a stated or implied need.

7. Write any two purpose of inspection.

Ans.

- (1) To distinguish good lots from bad lots
- (2) To distinguish good pieces from bad pieces.
- (3) To determine if the process is changing.
- (4) To determine if the process is approaching the specification limits.

8. Define quality assurance.

Ans.

Quality assurance is the method of assuring the desired quality, reliability, service and other aspects in the manufactured product in current production.

Section – C

03X03 = 09 Marks



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9. What is the significance of quality tools? Write down 7QC tools.

Ans.

The elementary statistical tools have fetched a lot of importance, as the seven indispensable tools of Quality for any organization to flourish to the zenith of excellence. The concept behind the seven basic tools came from Kaoru Ishikawa, according to whom, 95% of quality related problems can be resolved with these basic tools.

- Histogram or stem-and-leaf plot
- Check sheet
- Pareto chart
- Cause-and-effect diagram
- Stratification
- Scatter diagram
- Control chart

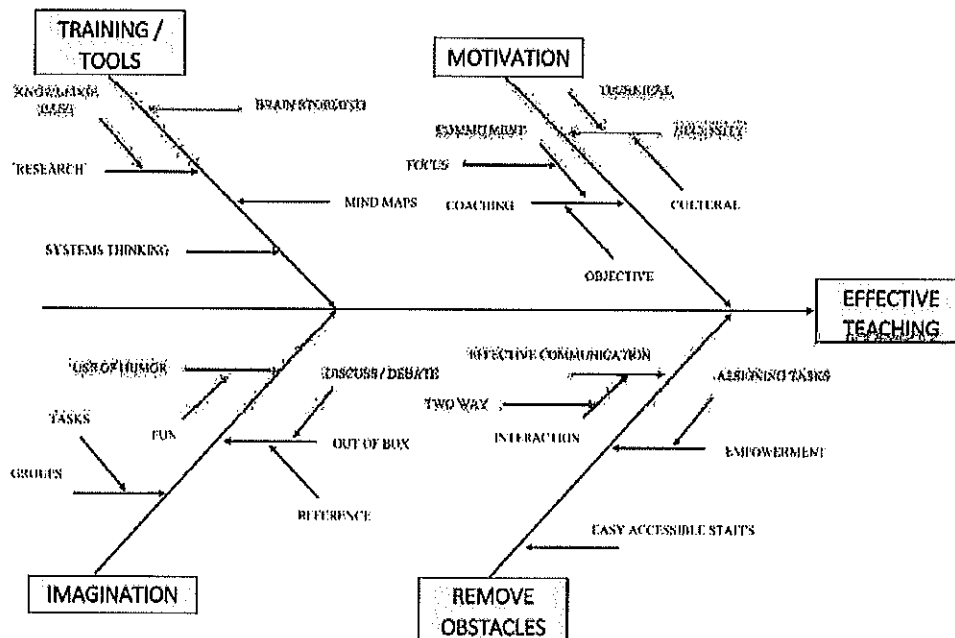
10. Write at least six characteristics of quality circle.

Ans.

- Volunteers
- Set Rules and Priorities
- Decision made by consensus
- Organized approach to problem solving
- Members of a circle need to receive training
- Support of senior management required
- Members need to be empowered

11. Explain fish bone diagram with an appropriate example.

Ans.



The cause and effect (CE) diagram, also known as fish-bone diagram, developed by Dr. Kaoru Ishikawa, explore possible causes of problems, with the intention being to discover the root causes. It is useful for identifying and organizing the known or possible causes of quality, or the lack of it. Some of the benefits of CE diagram are: helps determine the root causes of a problem or quality characteristic using a structured approach; indicates possible causes of variation in a process; and identifies areas where data should be collected for further study