KandulaSrinivasa ReddyMemorial College of Engineering (Autonomous)

Kadapa-516003. AP

(Approved by AICTE, Affiliated to JNTUA, Ananthapuramu, Accredited by NAAC)

(An ISO 9001-2008 Certified Institution)

Department of Mechanical Engineering

Certification Course

on

"ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS"

Resource Person : 1.DR P. SREENIVAS,Associate Professor,Dept.of ME,KSRMCE

Course Coordinator: 1. Sri S. VIJAYA KUMAR .Associate Professor,Dept.of ME,KSRMCE

Date: 06/07/22 to 30/07/22

K.S.R.M. COLLEGE OF ENGINEERING

(UGC-AUTONOMOUS)

Kadapa, Andhra Pradesh, India– 516 003

Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu.

An ISO 14001:2004 & 9001: 2015 Certified Institution

Lr./KSRMCE/ME/2021-22/ Date: 04-07-2022

To
The Principal,
KSRMCE,
Kadapa.

Sub: Permission to Conduct Certificate Course on "ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS" from 06-07-2022 to 30-07-2022 – Reg.

Respected Sir,

The Department of Mechanical Engineering is planning to offer a certification course on "ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS" to B. Tech. IV semester students. The course will be conducted from 06-07-2022 to 30-07-2022. In this regard, we are requesting you to grant permission to conduct certificate course.

Thanking you

Forwarded to Principal sir

Yours faithfully
S. Vijaya Kumar
(Sri S. Vijaya Kumar, Asst. Professor)

Permitted
V. S. S. Murthy

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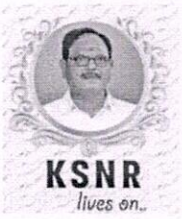

Cr./KSRMCE/ME/2021-22/ Date: 04/07/2022

Circular

The Department of Mechanical Engineering is offering a certification course on "Estimating and Costing for Mechanical Engineers" From 06-07-2022 to 30-07-2022 to B. Tech IV semester students. In this regard, interested students are required to register for the Certification Course. The registration link is given below.

https://forms.gle/sHTcAbmRz1ocSH7D9

The Course Coordinators and Resource Persons
Sri S. Vijaya kumar,Asst. Professor
Sri P. Sreenivas ,Asso. professor
Dept. of Mechanical Engg.-KSRMCE.

HoD
Professor & Head
Department of Mechnical Engineering
K.S.R.M. College of Engineering
KADAPA - 516 003.

Cc to:

IQAC-KSRMCE

Registration for Certificate Course on "Estimating &Costing for Mechanical Engineers" from 06/07/2022 to 30/07/2022

1. Email Address

2. FULL NAME

3. College Name

4. Branch & Year

5. Roll Number

Registration list of Certification Course on "Estimating and costing for Mechanical Engineers" from 6th July 2022 to 30th July 2022

S.No	Timestamp	Email Address	FULL NAME	College Name	Branch&Year	Roll.Number
1	7/5/2022 17:01:01	219y5a0340@ksrmce.ac.in	VANAJA SRIHARI	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0340
2	7/5/2022 17:02:56	219y5a0332@ksrmce.ac.in	RAMIREDDY PRAVEENKUMARREDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0332
3	7/5/2022 17:09:01	209y1a0351@ksrmce.ac.in	SAGABALA BHANU PRAKASH	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0351
4	7/5/2022 17:09:12	219y5a0333@ksrmce.ac.in	SHAIK ACCHUKATLA MAHAMMAD JUBAIR	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0333
5	7/5/2022 17:16:13	209y1a0358@ksrmce.ac.in	SIDDHAMSETTY MADHAVA	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0358
6	7/5/2022 17:26:31	209y1a0301@ksrmce.ac.in	A.THULASI DEEPA	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0301
7	7/5/2022 19:37:11	219y5a0308@ksrmce.ac.in	DASARA SATHISH	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0308
8	7/5/2022 20:23:57	219y5a0336@ksrmce.ac.in	SHAIK GHOUSE BASHA	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0336
9	7/5/2022 20:43:32	209y1a0355@ksrmce.ac.in	SHAIK MOULA	KSRMCE	Mech 2nd year 4TH SEMESTER	209Y1A0355
10	7/5/2022 20:50:54	209y1a0353@ksrmce.ac.in	SHAIK MASOOD AHAMED	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0353
11	7/5/2022 21:46:18	209y1a0357@ksrmce.ac.in	SHAIK SADIQ ALI	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0357
12	7/5/2022 21:47:32	219y5a0315@ksrmce.ac.in	K.BHAGEERATHA SHANKAR	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0315
13	7/5/2022 21:47:40	219y5a0331@ksrmce.ac.in	POTHAM VENKATESWAR REDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0331
14	7/5/2022 21:48:23	219y5a0339@ksrmce.ac.in	SYED SHAHIDHUSSAIN	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0339
15	7/5/2022 21:48:26	219y5a0322@ksrmce.ac.in	MOPURI KRISHNA VAMSI	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0322
16	7/5/2022 21:48:37	219y5a0307@ksrmce.ac.in	BUDIGOLLA PAVAN KUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0307
17	7/5/2022 21:48:41	219y5a0313@ksrmce.ac.in	KARUMANCHI PRAKASH RAJ	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0313
18	7/5/2022 21:49:16	219y5a0334@ksrmce.ac.in	SHAIK ANSAR BASHA	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0334
19	7/5/2022 21:49:34	219y5a0338@ksrmce.ac.in	SURA SANDEEP KUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0338
20	7/5/2022 22:10:39	209y1a0364@ksrmce.ac.in	VELLATUR AKHIL KUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	209Y1A0364

21	7/5/2022 22:15:46	219y5a0323@ksrmce.ac.in	MURUSU YELLAREDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0323
22	7/5/2022 22:17:47	219y5a0302@ksrmce.ac.in	BADUGU KARTHIK	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0302
23	7/5/2022 22:49:58	219y5a0319@ksrmce.ac.in	MALA GOVARDHAN	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0319
24	7/5/2022 22:50:28	219y5a0330@ksrmce.ac.in	P.DINESH KUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0330
25	7/5/2022 22:50:34	209y1a0363@ksrmce.ac.in	VASAGIRI NAGA GOKUL	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0363
26	7/5/2022 22:50:44	219y5a0327@ksrmce.ac.in	PAMIDI ARUN KUMAR REDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0327
27	7/5/2022 22:50:49	219y5a0306@ksrmce.ac.in	BUDIGI GANDHI	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0306
28	7/5/2022 22:51:13	219y5a0311@ksrmce.ac.in	GALLA MUKESH SAI	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5A0311
29	7/6/2022 10:51:39	219y5a0309@ksrmce.ac.in	DASARI SREEKANTH	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0309
30	7/6/2022 10:51:48	209y1a0366@ksrmce.ac.in	YARRADODDY MAHESH	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0366
31	7/6/2022 10:52:18	219y5a0335@ksrmce.ac.in	SHAIK ASRARUDDIN	KSRMCE	Mech 2nd year 4TH SEMESTER	219Y5A0335
32	7/6/2022 10:52:18	219y5a0310@ksrmce.ac.in	DASARI VENKATESWARLU	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0310
33	7/6/2022 10:54:11	219y5a0317@ksrmce.ac.in	MAACHINENI YERAKONDAPPA	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0317
34	7/6/2022 10:54:19	219y5a0312@ksrmce.ac.in	GORLA SRI HARI	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0312
35	7/6/2022 10:55:35	219y5a0304@ksrmce.ac.in	B.KIRAN	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0304
36	7/6/2022 10:56:37	219y5a0305@ksrmce.ac.in	BOYA HARIKRISHNA	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0305
37	7/6/2022 10:56:44	209y1a0356@ksrmce.ac.in	SHAIKH RASOOL	KSRMCE	Mech 2nd year 4TH SEMESTER	209Y1A0356
38	7/6/2022 10:57:33	219y5a0301@ksrmce.ac.in	ALANKARAM PAVANKUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0301
39	7/6/2022 10:59:44	209y1a0309@ksrmce.ac.in	CHAVVA SRINIVASULA REDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0309
40	7/6/2022 11:02:47	209y1a0313@ksrmce.ac.in	D. B. SAI KUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0313
41	7/6/2022 11:04:06	209y1a0343@ksrmce.ac.in	RAMIREDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0343
42	7/6/2022 11:04:17	209y1a0330@ksrmce.ac.in	KURAPATI PRAVEEN KUMAR RAJU	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0330

43	7/6/2022 11:05:08	209y1a0327@ksrmce.ac.in	KORIVI VENKAT PAVAN TANUJ	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0327
44	7/6/2022 11:11:30	209y1a0337@ksrmce.ac.in	MEKALA KRUPAKAR RAJU	KSRMCE	Mech 2nd year 4TH SEMESTER	209ya10337
45	7/6/2022 12:00:19	209y1a0367@ksrmce.ac.in	Y.MOHANA SREE	KSRMCE	Mech 2nd year 4TH SEMESTER	209Y1A0367
46	7/6/2022 12:02:38	209y1a0349@ksrmce.ac.in	PUTTA MAHADEVA REDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0349
47	7/6/2022 14:17:01	219y5a0329@ksrmce.ac.in	PATIMA AJAY	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0329
48	7/6/2022 15:45:21	209y1a0310@ksrmce.ac.in	C.VANDANA EVANGELINE	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0310
49	7/6/2022 16:04:30	209y1a0346@ksrmce.ac.in	P OBULA VAMSIDHAR	KSRMCE	Mech 2nd year 4TH SEMESTER	209Y1A0346
50	7/6/2022 16:09:56	209y1a0325@ksrmce.ac.in	KANDULA NAVEEN	KSRMCE	Mech 2nd year 4TH SEMESTER	209Y1A0325
51	7/6/2022 16:16:24	219y5a0341@ksrmce.ac.in	V BHARATH NARAYANA REDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	219y5a0341
52	7/6/2022 16:01:34	209y1a0311@ksrmce.ac.in	DADE SIDDIQ	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0311
53	7/6/2022 16:18:37	209y1a0362@ksrmce.ac.in	VALLAPU VENKATA SIVA SAI BHAVANI	KSRMCE	Mech 2nd year 4TH SEMESTER	209Y1A0362
54	7/6/2022 16:23:39	209y1a0305@ksrmce.ac.in	B.DINESH KUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0305
55	7/6/2022 16:26:48	209y1a0329@ksrmce.ac.in	KOTTE VENKATA SUNIL KUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0329
56	7/6/2022 16:30:50	209y1a0335@ksrmce.ac.in	LOKESHWAR MARRIPALLI	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0335
57	7/6/2022 16:36:53	209y1a0312@ksrmce.ac.in	DASARI VAMSIDHAR REDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0312
58	7/6/2022 16:45:56	209y1a0315@ksrmce.ac.in	ETUKURI GIRIDHAR KUMAR	KSRMCE	Mech 2nd year 4TH SEMESTER	209Y1A0315
59	7/6/2022 16:52:35	209y1a0350@ksrmce.ac.in	R.VALEEDH	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0350
60	7/6/2022 16:55:46	209y1a0314@ksrmce.ac.in	EVIJAYSENAREDDY	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0314
61	7/6/2022 16:56:49	209y1a0320@ksrmce.ac.in	YUGANDHAR CHOWDARY	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0320
62	7/6/2022 17:17:52	209y1a0323@ksrmce.ac.in	KAPIA KARTHIK SARMA	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0323
63	7/6/2022 17:17:58	209y1a0348@ksrmce.ac.in	NARAYANA. P	KSRMCE	Mech 2nd year 4TH SEMESTER	209y1a0348

Syllabus of Certification Course

Course Name: ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS

Duration: 30 Hours

UNIT-1

INTRODUCTION TO ESTIMATION & COSTING: Estimation - Definition, Importance and Aims- Qualities and functions of an EstimatorSource of errors in estimation- Constituents of Estimation- Costing - Definition and Aims - Difference between costing and estimating-

UNIT-2

ESTIMATION OF MATERIALS COST: Material - Direct material, indirect material and examples- Calculation of Material cost - Labour - direct, indirect labour and examples - Calculation of labour cost - Expenses - direct, indirect expenses and examples- Classification of expenses - factory, administrative, selling and distribution expenses - Fixed and variable expenses - Components of cost - prime cost, factory cost, office cost, total cost - Block diagram to show the relationship between elements and components of cost -Determination of selling price.

UNIT-3

ESTIMATION OF WEIGHTS OF MATERIALS & COST OF MATERIAL Mensuration, perimeters and areas of plane figures, Surface areas andvolumes of solids.Depreciation and obsolescence: Definition, types, different methods of calculating depreciation- numeric examples.

UNIT-4

ESTIMATION IN FORGING SHOP:Cost terminology associated with forging shop- The procedure for calculating material cost of a product for forging shop- Procedure for estimating forging cost- forging losses to be considered while estimating -Estimation of forging cost.

UNIT-5

ESTIMATION IN FOUNDRY SHOP: Estimation in foundry shop-pattern allowances- The procedure for calculating material cost of a product for foundry shop - Procedure for estimating cost of pattern making. -Procedure for estimating in foundry cost.

TEXT BOOKS

1) Mechanical estimation and costing **T.R.Banga and S.C.Sharma**
2) Mechanical costing and estimation. **Singh and Khan**
3) Mechanical Estimation **Malhothra**
4) Estimating & Costing **O.P.Khanna**

Professor & Head
Department of Mechnical Engineering
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SCHEDULE

Department of Mechanical Engineering

Certification course

on

"ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS"

Date	Timing	Course Instructor	INTRODUCTION TO ESTIMATION & COSTING: Estimation - Definition, Importance and Aims
7/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	Qualities and functions of an Estimator Source of errors in estimation- Constituents of Estimation- Costing - Definition and Aims - Difference between costing and estimating
8/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	ESTIMATION OF MATERIALS COST: Material - Direct material, indirect material and examples
11/7/2022	4 PM to 6 PM	S. VIJAYA KUMAR	Calculation of Material cost - Labor - direct, indirect labor and examples
13/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	Calculation of labor cost - Expenses - direct, indirect expenses and examples
14/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	Classification of expenses - factory, administrative, selling and distribution expenses
15/7/2022	10AM to12Noon	S. VIJAYA KUMAR	Fixed and variable expenses - Components of cost - prime cost, factory cost, office cost, total cost
18/7/2022	2 PM to 6 PM	DR.P. SREENIVAS	Block diagram to show the relationship between elements and components of cost - Determination of selling price.
19/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	ESTIMATION OF WEIGHTS OF MATERIALS & COST OF MATERIAL Mensuration
20/7/2022	4 PM to 6 PM	S. VIJAYA KUMAR	Perimeters and areas of plane figures, Surface areas and volumes of solids.
21/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	Depreciation and obsolescence: Definition, types, different methods of calculating depreciation- numeric examples.
22/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	ESTIMATION IN FORGING SHOP: Cost terminology associated with forging shop
25/7/2022	4 PM to 6 PM	S. VIJAYA KUMAR	The procedure for calculating material cost of a product for forging shop

27/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	Procedure for estimating forging cost
28/7/2022	4 PM to 6 PM	DR.P. SREENIVAS	Forging losses to be considered while estimating -Estimation of forging cost.
29/7/2022	4 PM to 6 PM	S. VIJAYA KUMAR	CONCLUSION

Coordinator

HoD

Professor & Head
Department of Mechnical Engineering
K.S.R.M. College of Engineering
KADAPA - 516 003

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Department of Mechanical Engineering

Attendance sheet of Certification course on "ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS" from 06th July 2022 to 30th July 2022

Sl. No.	Roll No.	Name	7/7	8/7	11/7	13/7	14/7	15/7	18/7	19/7	20/7	21/7	22/7	25/7	27/7	28/7	29/7
1	209Y1A0301	A.THULASI DEEPA	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
2.	209Y1A0305	B.DINESH KUMAR	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
3.	209Y1A0309	CHAVVA SRINIVASULA REDDY	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
4.	209Y1A0310	C.VANDANA EVANGELINE	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P
5.	209Y1A0311	DADE SIDDIQ	P	P	P	P	P	P	P	P	A	P	P	P	A	P	P
6.	209Y1A0312	DASARI VAMSIDHAR REDDY	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7.	209Y1A0313	D. B. SAI KUMAR	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P
8.	209Y1A0314	EVIJAYSENAREDDY	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9.	209Y1A0315	ETUKURI GIRIDHAR KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	209Y1A0320	G. YUGANDHAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P

11	**209Y1A0323**	KAPIA KARTHIK SARMA	P	P	A	P	P	P	P	A	P	A	P	P	P	P	P	P
12	**209Y1A0325**	KANDULA NAVEEN	P	P	P	P	P	P	P	A	P	P	A	P	P	P	A	P
13	**209Y1A0327**	KORIVI VENKAT PAVAN TANUJ	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P	A
14	**209Y1A0329**	KOTTE VENKATA SUNIL KUMAR	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	**209Y1A0330**	KURAPATI PRAVEEN KUMAR RAJU	P	P	A	P	P	P	P	P	P	P	P	A	A	P	P	P
16	**209Y1A0335**	LOKESHWAR MARRIPALLI	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
17	**209YA10337**	MEKALA KRUPAKAR RAJU	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P	P
18	**209Y1A0343**	RAMIREDDY	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
19	**209Y1A0346**	P OBULA VAMSIDHAR	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
20	**209Y1A0348**	NARAYANA. P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P
21	**209Y1A0349**	PUTTA MAHADEVA REDDY	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
22	**209Y1A0350**	R.VALEEDH	P	A	A	P	P	P	P	P	A	P	P	P	P	P	P	P
23	**209Y1A0351**	SAGABALA BHANU PRAKASH	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	**209Y1A0353**	SHAIK MASOOD AHAMED	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P
25	**209Y1A0355**	SHAIK MOULA	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
26	**209Y1A0357**	SHAIK SADIQ ALI	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P
27	**209Y1A0358**	SIDDHAMSETTY MADHAVA	P	P	P	P	P	P	P	P	A	P	P	P	P	A	P	P
28	**209Y1A0362**	VALLAPU VENKATA SIVA SAI BHAVANI	A	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P
29	**209Y1A0363**	VASAGIRI NAGA GOKUL	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
30	**209Y1A0364**	VELLATUR AKHIL KUMAR	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P
31	**209Y1A0366**	YARRADODDY MAHESH	P	P	P	P	P	A	P	P	A	P	P	P	P	P	P	P

32	209Y1A0367	Y.MOHANA SREE	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
33	219Y5A0301	ALANKARAM PAVANKUMAR	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
34	219Y5A0302	BADUGU KARTHIK	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
35	219Y5A0304	B.KIRAN	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
36	219Y5A0305	BOYA HARIKRISHNA	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
37	219Y5A0306	BUDIGI GANDHI	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
38	219Y5A0307	BUDIGOLLA PAVAN KUMAR	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
39	219Y5A0308	DASARA SATHISH	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P
40	219Y5A0309	DASARI SREEKANTH	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
41	219Y5A0310	DASARI VENKATESWARLU	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P
42	219Y5A0311	GALLA MUKESH SAI	P	P	P	P	P	P	P	A	P	P	P	P	A	A	P	P
43	219Y5A0312	GORLA SRI HARI	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P
44	219Y5A0313	KARUMANCHI PRAKASH RAJ	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
45	219Y5A0315	K.BHAGEERATHA SHANKAR	P	P	A	P	P	P	P	A	P	P	P	P	P	P	P	A
46	219Y5A0317	MAACHINENI YERAKONDAPPA	P	A	P	P	P	P	P	P	A	P	A	P	P	P	P	P
47	219Y5A0319	MALA GOVARDHAN	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P
48	219Y5A0322	MOPURI KRISHNA VAMSI	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
49	219Y5A0323	MURUSU YELLAREDDY	A	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P
50	219Y5A0327	PAMIDI ARUN KUMAR REDDY	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P
51	219Y5A0329	PATIMA AJAY	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
52	219Y5A0330	P.DINESH KUMAR	P	P	P	P	P	P	P	P	A	P	P	P	P	P	A	P
53	219Y5A0331	POTHAM VENKATESWAR REDDY	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P

54	219Y5A0332	RAMIREDDY PRAVEENKUMARR EDDY	P	P	P	P	P	P	A	P	P	P	P	P	A	P	P
55	219Y5A0333	SHAIK ACCHUKATLA MAHAMMAD JUBAIR	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P
56	219Y5A0334	SHAIK ANSAR BASHA	P	P	P	P	P	P	P	P	P	A	P	P	A	P	P
57	219Y5A0335	SHAIK ASRARUDDIN	P	P	P	P	A	P	P	P	A	P	A	P	P	P	P
58	219Y5A0336	SHAIK GHOUSE BASHA	A	P	P	P	P	P	P	P	P	P	P	A	P	P	A
59	219Y5A0337	S. SEENU	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P
60	219Y5A0338	SURA SANDEEP KUMAR	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
61	219Y5A0339	SYED SHAHIDHUSSAIN	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
62	219Y5A0340	V.SRI HARI	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
63	219Y5A0341	V BHARATH NARAYANA REDDY	P	P	P	P	A	P	P	P	P	P	A	P	P	P	P

Coordinators

HOD - ME

Professor & Head
Department of Mechnical Engineering
K.S.R.M. College of Engineering
KADAPA - 516 003.

K.S.R.M. COLLEGE OF ENGINEERING

(UGC - Autonomous)

Kadapa, Andhra Pradesh, India– 516 003

Approved by AICTE, New Delhi & Affiliated to JNTUA, Anantapuramu.

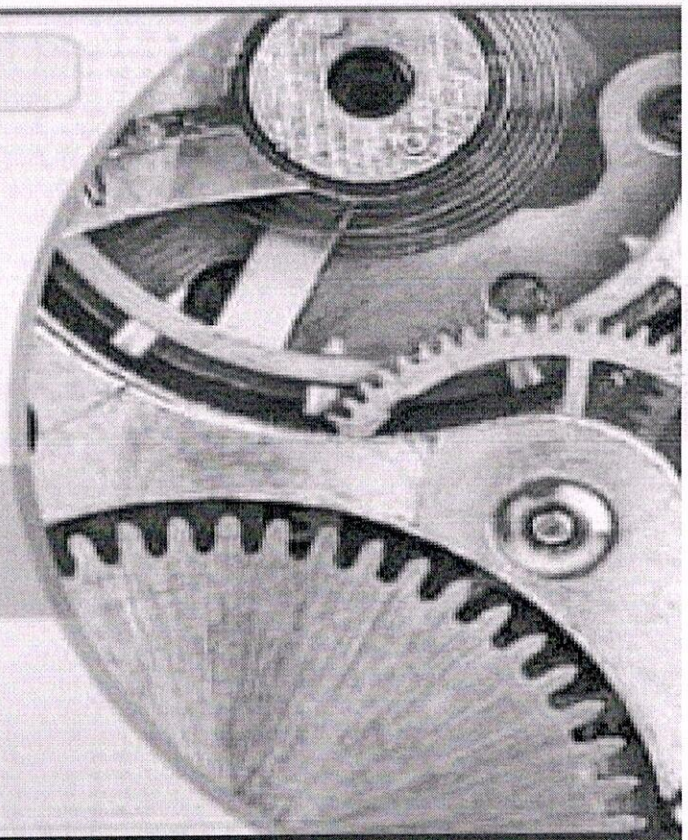
KSNR

DEPARTMENT OF MECHANICAL ENGINEERING

Certification course on

" ESTIMATING & COSTING FOR MECHANICAL ENGINEERS "

Department of ME



06-07-2022 to 30-07-2022

ME 206

Coordinator

Sri S.Vijaya Kumar,
Assistant professor
Mech.Engg.Dept.

Resource person

Dr. P. Sreenivas,
Associate professor
Mech.Engg.Dept.

Dr. D. Ravikanth | Dr. V.S.K. Murthy | Dr. Kandula Chandra Obul Reddy (Managing Director) | Smt. K.Rajeswari (Correspondent, Secretary, Treasurer) | Sri K. Madan Mohan Reddy (Vice - Chairman) | Sri K. Raja Mohan Reddy (Chairman)

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Report of
Certification Course on "Estimating and Costing for Mechanical Engineers"
From 6th July 2022 to 30th July 2022

Target Group	:	**IV Semester Students**
Details of Participants	:	**63 Students**
Co-coordinator(s)	:	**Sri S. VIJAYA KUMAR**
Resource Persons	:	**DR. P. SREENIVAS**
Organizing Department	:	**Mechanical Engineering**
Venue	:	**Seminar Hall, Mechanical Department**

Description:

The Department of Mechanical Engineering conducted a certification course on "Engine Combustion" from 6th July 2022 to 30th July 2022. The course duration was 30 hours .The course Resource Persons are Dr. P. Sreenivas, Associate Professor and Sri S. Vijaya Kumar, Assistant Professor Department Mechanical Engineering, KSRMCE.

The main objective of this course is to introduce the fundamental concepts Qualities and functions of an Estimator Source of errors in estimation- Constituents of Estimation- Costing - Definition and Aims - Difference between costing and estimating.

ESTIMATION OF MATERIALS COST: Material - Direct material, indirect material and examples- Calculation of Material cost - Labour - direct, indirect labour and examples - Calculation of labour cost - Expenses - direct, indirect expenses and examples- Classification of expenses - factory, administrative, selling and distribution expenses - Fixed and variable expenses - Components of cost - prime cost, factory cost, office cost, total cost - Block diagram to show the relationship between elements and components of cost -Determination of selling price.

Cost terminology associated with forging shop- The procedure for calculating material cost of a product for forging shop- Procedure for estimating forging cost- forging losses to be considered while estimating - Estimation of forging cost.

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Certificate of Completion

This to certify that Mr/Mrs. C. VANDANA EVANGELINE Bearing the Roll Number 209Y1A0310 has Successfully Completed Certification Course on "ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS" from 06-07-2022 to 30-07-2022, Organized by Department of Mechanical Engineering, KSRMCE, Kadapa.

S. Vijayaku
Coordinator

HOD ME
Professor & Head
Department of Mechnical Engineering
K.S.R.M. College of Engineering
KADAPA-516 003.

V.S.S. Murthy
Principal

PRINCIPAL
K.S.R.M. COLLEGE OF ENGINEERING
KADAPA-516003. (A.P.)

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Kadapa, Andhra Pradesh, India– 516 003
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Certificate of Completion

This to certify that Mr/Mrs. P. DINESH KUMAR Bearing the Roll Number 219Y5A0330 has Successfully Completed Certification Course on "ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS" from 06-07-2022 to 30-07-2022, Organized by Department of Mechanical Engineering, KSRMCE, Kadapa.

Coordinator

HOD ME
Professor & Head
Department of Mechnical Engineering
K.S.R.M. College of Engineering
KADAPA - 516 003.

V. S. S. Murthy
Principal

PRINCIPAL
K.S.R.M. COLLEGE OF ENGINEERING
KADAPA-516003. (A.P.)

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Kadapa, Andhra Pradesh, India– 516 003
Approved by AICTE, New Delhi & Affiliated to JNTUA, Ananthapuramu.

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Certificate of Completion

This to certify that Mr/Mrs. SK·A·MD·JUBAIR **Bearing the Roll Number** 219Y5A0333 **has Successfully Completed Certification Course on "** ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS **" from** 06-07-2022 **to** 30-07-2022**, Organized by Department of Mechanical Engineering, KSRMCE, Kadapa.**

Coordinator

HOD ME
Professor & Head
Department of Mechnical Engineering
K.S.R.M. College of Engineering
KADAPA - 516 003.

V. S. S. Murthy
Principal
PRINCIPAL
K.S.R.M. COLLEGE OF ENGINEERING
KADAPA-516003. (A.P.)

Feedback on Certificate Course on "Estimating& Costing for Mechanical Engineers" From 06/07/2022 to 30/07/2022

*Required

1. Student Name (Optional)

2. Roll Number (Optional)

3. The objectives of the course were met (Objective) *

Mark only one oval.

- Excellent
- Good
- Satisfactory
- Poor

4. The pace of the course was appropriate to the content and attendees(Content) *

Mark only one oval.

- Excellent
- Good
- Satisfactory
- Poor

5. The content of the course was organized and easy to follow (Delivery) *

Mark only one oval.

- Excellent
- Good
- Satisfactory
- Poor

6. The Resource Persons were well prepared and able to answer any questions (Interaction) *

Mark only one oval.

- Excellent
- Good
- Satisfactory
- Poor

7. The exercises / role play were helpful and relevant (Syllabus Coverage) *

Mark only one oval.

- Excellent
- Good
- Satisfactory
- Poor

8. The venue was appropriate for the course (About Venue)*

Mark only one oval.

- Excellent
- Good
- Satisfactory
- Poor

9. The Course satisfy my expectation as a value added Programme (Course Satisfaction) *

Mark only one oval.

- ◯ Excellent
- ◯ Good
- ◯ Satisfactory
- ◯ Poor

10. Any Other comments

FeedbackonCertificateCourseon" Estimating and Costing for Mechanical Engineering "from06/07/22to30/07/22

S.No	Timestamp	Theobjec	Thepa	Theconte nt	TheRes o	Theexercis ces	Thevenu	TheCour	StudentNa m	RollNumber(C	AnyOthercomment s
1	30/07/202216:30:36	Excellen	Excelle	Excellen t	Excellen t	Excellent	Excellent	Excellent			
2	30/07/202216:30:42	Excellent	Excelle	Excellen t	Excellen t	Excellent	Excellent	Excellent	KKarthiks arma	209y1a0323	
3	30/07/202216:30:48	Excellent	Good	Excellen t	Excellen t	Good	Excellent	Good			
4	30/07/202216:30:52	Good	Good	Good	Good	Good	Good	Good	Lokeshwa r	209y1a0335	--
5	30/07/202216:30:55	Excellen t	Excelle	Excellen t	Good	Excellent	Excellent	Excellent			
6	30/07/202216:30:59	Excellent	Excellent	Excellen t	Excellen t	Excellent	Excellent	Excellent			
7	30/07/202216:31:06	Excellent	Excelle	Excellen t	Excellen t	Excellent	Good	Good			
8	30/07/202216:31:10	Excellen t	Excelle	Excellen t	Good	Excellent	Good	Good			
9	30/07/202216:31:13	Satisfacto	Satisfacto ry	Satisfact ory	Satisfact ory	Satisfacto ry	Satisfacto ry	Satisfactory	SIDDHAM SE	209y1a0358	No
10	30/07/202216:31:23	Good	Excellent	Good	Excellen t	Good	Excellent	Excellent			
11	30/07/202216:31:27	Excellen t	Excellent	Excellen t	Excellen t	Excellent	Good	Good	Sagabala Bh	209y1a0351	
12	30/07/202216:31:32	Excellen t	Good	Good	Excellen t	Good	Good	Excellent			
13	30/07/202216:31:36	Good	Good	Good	Good	Good	Satisfacto	Satisfacto			
14	30/07/202216:31:42	Good	Good	Good	Good	Good	Good	Good	ShaikMou la	355	Itisusefulforus
15	30/07/202216:31:46	Good	Good	Good	Good	Good	Good	Good			--
16	30/07/202216:31:55	Excellen t	Excellent	Excellen t	Excellen t	Excellent	Excellent	Excellent	R.valeedh		
17	30/07/202216:32:01	Excellen t	Excellent	Excellen t	Excellen t	Excellent	Excellent	Excellent	Narayana. p		-
18	30/07/202216:32:03	Excellen t	Good	Excellen t	Good	Excellent	Excellent	Good			-
19	30/07/202216:32:07	Excellen t	Excellent	Excellen t	Excellen t	Good	Good	Good			
20	30/07/202216:32:16	Good	Good	Good	Excellen t	Good	Good	Excellent	Shaikjuba ir	219y5a0333	ok
21	30/07/202216:32:21	Excellent	Excellent	Good	Excellen t	Good	Excellent	Good			
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24	30/07/202216:32:36	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent			-
25	30/07/202216:32:28	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	VELLATURA	209Y1A0364	Nothingtosay
26	30/07/202216:32:41	Good	Satisfactory	Excellent	Excellent	Excellent	Satisfacto	Satisfactory	Sagabalabh	209y1a0351	
27	30/07/202216:32:48	Good	Excellent	Excellent	Good	Excellent	Good	Excellent			
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35	30/07/202216:34:56	Good	Good	Good	Good	Good	Good	Good	SIDDHAMSE	209y1a0358	No
36	30/07/202216:34:59	Excellent	Good	Good	Good	Satisfactor	Excellent	Excellent			
37	30/07/202216:35:06	Good	Good	Good	Good	Good	Good	Good			No
38	30/07/202216:35:13	Excellent	Excelle	Good	Good	Good	Good	Good			
39	30/07/202216:35:21	Excellent	Excelle	Excellent	Excellent	Excellent	Excellent	Excellent			
40	30/07/202216:35:26	Good	Good	Good	Good	Good	Good	Good			
41	30/07/202216:35:31	Good	Good	Good	Good	Good	Good	Good			
42	30/07/202216:35:36	Excellent	Excelle	Excellent	Excellent	Excellent	Excellent	Excellent	Korivivenkat	209y1a0327	
43	30/07/202216:35:41	Good	Good	Good	Good	Good	Good	Good			
44	30/07/202216:35:45	Good	Good	Good	Good	Good	Good	Good			--
45	30/07/202216:35:51	Excellent	Excelle	Excellent	Excellent	Excellent	Excellent	Excellent			
46	30/07/202216:35:54	Good	Good	Good	Good	Good	Good	Good	V Bharath	219Y5A0341	
47	30/07/202216:35:58	Excellent	Excelle	Good	Good	Excellent	Excellent	Good			Nothing
48	30/07/202216:36:05	Good	Good	Good	Good	Good	Good	Good			
49	30/07/202216:36:11	Excellent	Good	Excellent	Good	Good	Excellent	Excellent	Sagabala Bh	209y1a0351	
50	30/07/202216:36:21	Excellent	Excelle	Excellent	Excellent	Excellent	Excellent	Excellent			
51	30/07/202216:36:25	Good	Excelle	Good	Good	Good	Good	Good	ShaikMoula		
52	30/07/202216:36:36	Excellent	Excelle	Excellent	Excellent	Excellent	Excellent	Excellent			
53	30/07/202216:36:45	Excellent	Excelle	Good	Good	Good	Good	Good			

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55	30/07/202216:38:06	Excellent	Excelle	Excellent	Excellent	Excellent	Excellent	Excellent		209Y1A0355	
56	30/07/202216:38:16	Good	Excelle	Excellent	Good	Good	Good	Good			
57	30/07/202216:38:22	Excellent	Excelle	Excellent	Excellent	Excellent	Excellent	Excellent			
58	30/07/202216:38:36	Excellent	Excelle	Good	Good	Good	Good	Good	P obulavam	209Y1A0346	
59	30/07/202216:38:45	Excellent	Good	Excellent	Good	Excellent	Good	Excellent			
60	30/07/202216:38:54	Excellent	Excelle	Good	Satisfacto	Good	Good	Good			
61	30/07/202216:39:06	Excellent	Excelle	Excellent	Excellent	Excellent	Excellent	Excellent			
62	30/07/202216:39:28	Good	Good	Excellent	Excellent	Excellent	Excellent	Excellent		209y1a0351	
63	30/07/202216:39:42	Good	Good	Excellent	Excellent	Excellent	Excellent	Excellent		209Y5A0334	Nothing

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA-516003
DEPARTMENT OF MECHANICAL ENGINEERING
VALUE ADDED COURSE ON
ESTIMATING & COSTING FOR MECHANICAL ENGINEERS
FROM 06/07/2022 TO 30/07/2022
AWARD LIST

S.No	Roll Number	Name of the Student	Marks Obtained
1	209Y1A0301	A.Thulasi Deepa	12
2.	209Y1A0305	B.Dinesh Kumar	13
3.	209Y1A0309	Chavva Srinivasula Reddy	14
4.	209Y1A0310	C.Vandana Evangeline	12
5.	209Y1A0311	Dade Siddiq	14
6.	209Y1A0312	Dasari Vamsidhar Reddy	14
7.	209Y1A0313	D. B. Sai Kumar	13
8.	209Y1A0314	Evijaysenareddy	13
9.	209Y1A0315	Etukuri Giridhar Kumar	12
10	209Y1A0320	G. Yugandhar Chowdary	13
11	209Y1A0323	Kapia Karthik Sarma	12
12	209Y1A0325	Kandula Naveen	14
13	209Y1A0327	Korivi Venkat Pavan Tanuj	12
14	209Y1A0329	Kotte Venkata Sunil Kumar	14
15	209Y1A0330	Kurapati Praveen Kumar Raju	14
16	209Y1A0335	Lokeshwar Marripalli	12
17	209YA10337	Mekala Krupakar Raju	12
18	209Y1A0343	Ramireddy	13
19	209Y1A0346	P Obula Vamsidhar	13
20	209Y1A0348	Narayana. P	14
21	209Y1A0349	Putta Mahadeva Reddy	12
22	209Y1A0350	R.Valeedh	12
23	209Y1A0351	Sagabala Bhanu Prakash	13
24	209Y1A0353	Shaik Masood Ahamed	14
25	209Y1A0355	Shaik Moula	13
26	209Y1A0357	Shaik Sadiq Ali	13
27	209Y1A0358	Siddhamsetty Madhava	13
28	209Y1A0362	Vallapu Venkata Siva Sai Bhavani	12
29	209Y1A0363	Vasagiri Naga Gokul	13
30	209Y1A0364	Vellatur Akhil Kumar	12
31	209Y1A0366	Yarradoddy Mahesh	14
32	209Y1A0367	Y.Mohana Sree	13
33	219Y5A0301	Alankaram Pavankumar	13
34	219Y5A0302	Badugu Karthik	14
35	219Y5A0304	B.Kiran	12
36	219Y5A0305	Boya Harikrishna	12
37	219Y5A0306	Budigi Gandhi	14
38	219Y5A0307	Budigolla Pavan Kumar	14
39	219Y5A0308	Dasara Sathish	12
40	219Y5A0309	Dasari Sreekanth	14

41	219Y5A0310	Dasari Venkateswarlu	12
42	219Y5A0311	Galla Mukesh Sai	13
43	219Y5A0312	Gorla Sri Hari	13
44	219Y5A0313	Karumanchi Prakash Raj	12
45	219Y5A0315	K.Bhageeratha Shankar	13
46	219Y5A0317	Maachineni Yerakondappa	12
47	219Y5A0319	Mala Govardhan	14
48	219Y5A0322	Mopuri Krishna Vamsi	12
49	219Y5A0323	Murusu Yellareddy	14
50	219Y5A0327	Pamidi Arun Kumar Reddy	14
51	219Y5A0329	Patima Ajay	12
52	219Y5A0330	P.Dinesh Kumar	12
53	219Y5A0331	Potham Venkateswar Reddy	13
54	219Y5A0332	Ramireddy Praveenkumarreddy	13
55	219Y5A0333	Shaik Acchukatla Mahammad Jubair	14
56	219Y5A0334	Shaik Ansar Basha	12
57	219Y5A0335	Shaik Asraruddin	12
58	219Y5A0336	Shaik Ghouse Basha	13
59	219Y5A0337	S. Seenu	14
60	219Y5A0338	Sura Sandeep Kumar	13
61	219Y5A0339	Syed Shahidhussain	14
62	219Y5A0340	V.Sri Hari	12
63	219Y5A0341	V Bharath Narayana Reddy	14

Coordinator

HoD

Professor & Head
Department of Mechnical Engineering
K.S.R.M. College of Engineering
KADAPA - 516 003.

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA-516003
DEPARTMENT OF MECHANICAL ENGINEERING
VALUE ADDED /CERTIFICATE COURSE ON
ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS
FROM 06/07/2022 TO 30/07/2022
ASSESSMENT TEST

13

Roll Number: 209y1A0367 **Name of the Student:** Y. Mohana Sree

Time: 20 Min **(Objective Questions)** **Max.Marks: 20**

Note: Answer the following Questions and each question carries **one** mark.

1. Shake allowance is generally not provided on small pattern. [a]
   a) True b) False

2. ____ is the weight of stock of material required to produce a forging. [c]
   a) net weight b) Shape weight c) gross weight d) Consumed material

3. In __ heated metal bars is used to cut the in a smithy shop. [d]
   a) Swaging operation b) Upsetting operation c) Bending operation d) hot cutting

4. In drop forging the heated nar stock is shaped b y applying impat force. [a]
   a) True b) false

5. Dividing the weight of bar stock by number of pieces obtained by cutting it__ can be found. [b]
   a) Net weight b) Shape weight
   c) Consumed material weight d) Gross weight

6. The connection between the tong hold and the forging is called___. [c]
   a) Bending operation b) Swaging operation
   c) Punching & drifting operation d) Upsetting operation

7. The connection between the tong hold and th forging is called_____. [a]
   a) Sprue b) Tong c) Flash d) None of the above

8. Assuming 20 mm wide and 3 cm thick flash all around the periphery of the dies. [a]
   a) True b) False

9. From the following which is the type of forging [a]
   a) Hand forging b) metal forging c) butt forging d) None of the above

10. ____ is the process employed to shape a metal by plastically deforming it. [b]
    a) casting b) forging c) machining d) None of the above

11. Form which following is the type of forging operations. [d]
    a)Drawing down operation b) Swaging operation

K.S.R.M. COLLEGE OF ENGINEERING (AUTONOMOUS), KADAPA-516003
DEPARTMENT OF MECHANICAL ENGINEERING
VALUE ADDED /CERTIFICATE COURSE ON
ESTIMATING AND COSTING FOR MECHANICAL ENGINEERS
FROM 06/07/2022 TO 30/07/2022
ASSESSMENT TEST

12

Roll Number: 219Y5A0304 **Name of the Student:** B. Kiran

Time: 20 Min **(Objective Questions)** **Max.Marks: 20**

Note: Answer the following Questions and each question carries **one** mark.

1. Shake allowance is generally not provided on small pattern. [a]
   a) True b) False

2. ____ is the weight of stock of material required to produce a forging. [b]
   a) net weight b) Shape weight c) gross weight d) Consumed material

3. In __ heated metal bars is used to cut the in a smithy shop. [d]
   a) Swaging operation b) Upsetting operation c) Bending operation d) hot cutting

4. In drop forging the heated nar stock is shaped b y applying impat force. [a]
   a) True b) false

5. Dividing the weight of bar stock by number of pieces obtained by cutting it__ can be found. [b]
   a) Net weight b) Shape weight
   c) Consumed material weight d) Gross weight

6. The connection between the tong hold and the forging is called___. [b]
   a) Bending operation b) Swaging operation
   c) Punching & drifting operation d) Upsetting operation

7. The connection between the tong hold and th forging is called_____. [b]
   a) Sprue b) Tong c) Flash d) None of the above

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FROM 06/07/2022 TO 30/07/2022
ASSESSMENT TEST

12

Roll Number: 219Y5A0340 **Name of the Student:** V. Srihari

Time: 20 Min **(Objective Questions)** **Max.Marks: 20**

Note: Answer the following Questions and each question carries **one** mark.

1. Shake allowance is generally not provided on small pattern. [a]
   a) True b) False

2. ____ is the weight of stock of material required to produce a forging. [a]
   a) net weight b) Shape weight c) gross weight d) Consumed material

3. In __ heated metal bars is used to cut the in a smithy shop. [d]
   a) Swaging operation b) Upsetting operation c) Bending operation d) hot cutting

4. In drop forging the heated nar stock is shaped b y applying impat force. [b]
   a) True b) false

5. Dividing the weight of bar stock by number of pieces obtained by cutting it__ can be found. [b]
   a) Net weight b) Shape weight
   c) Consumed material weight d) Gross weight

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   a) Bending operation b) Swaging operation
   c) Punching & drifting operation d) Upsetting operation

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    a) casting b) forging c) machining d) None of the above

11. Form which following is the type of forging operations. [a]
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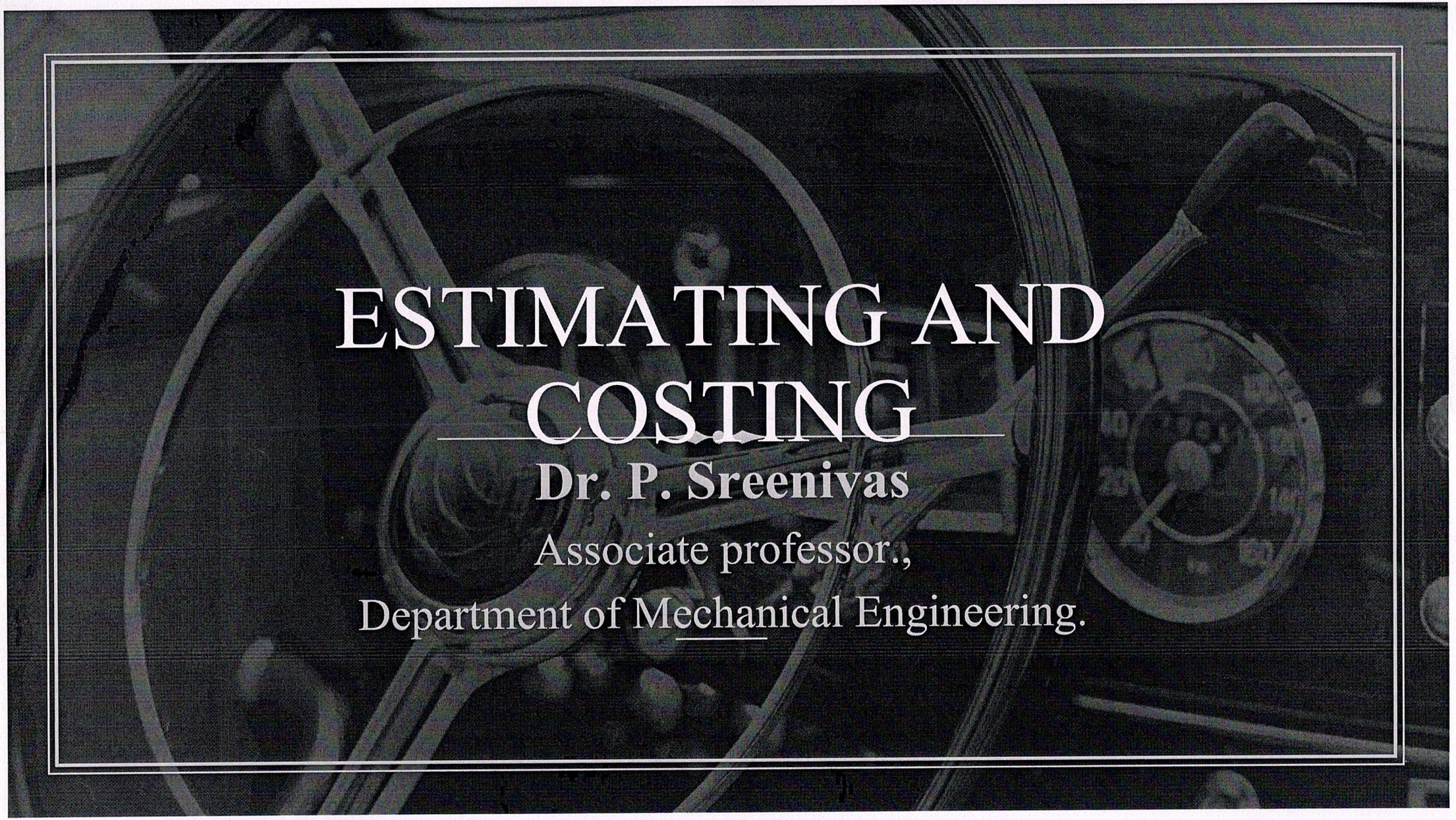
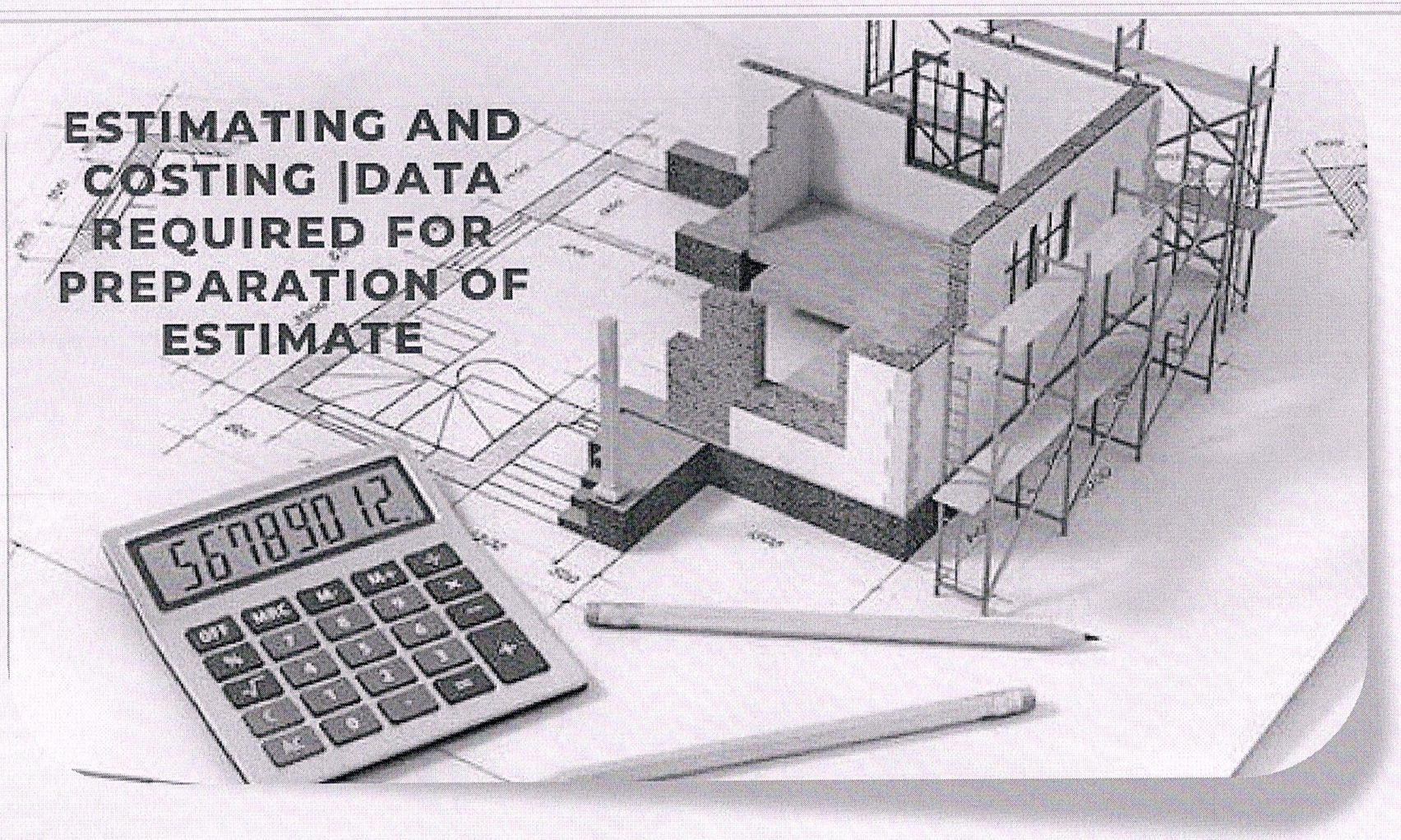


ESTIMATING AND COSTING

Dr. P. Sreenivas

Associate professor.,

Department of Mechanical Engineering.


ESTIMATING AND
COSTING |DATA
REQUIRED FOR
PREPARATION OF
ESTIMATE

Needs for Estimation and Costing

- Estimate give an idea of the cost of the work and hence its feasibility can be determined i.e, whether the project could be taken up with in the funds available or not.
- Estimate gives an idea of time required for the completion of the work.
- Estimate is required to invite the tenders and Quotations and to Arrange contract.
- Estimate is also required to control the expenditure during the execution of work.
- Estimate decides whether the proposed plan matches the funds avail or not.

ESTIMATING

DEFINITION OF ESTIMATING : It is an art of finding the cost , which is likely to be incurred on the manufacturing of an article ,before it is actually manufactured .Thus it is the calculation of probable cost of an article before the manufacturing starts .it also includes predetermination of the quantity and quality of material , labour required etc.

Estimating requires highly technical knowledge about manufacturing methods and operation times etc.

AIMS OF ESTIMATING : The main aims of estimating are us under :

(i) To help the factory owner in deciding the manufacturing and selling policies

(ii) To help in filling up the tending enquiries .

(iii) To decide about the amount of overheads , which helps in comparing and checking the actual overheads of the factory.

FUNCTIONS OF ESTIMATING DEPARTMENT :

The important functions of estimation department are summarised below :

(*i*) To determine material cost , taking into considerations different allowances required for different manufacturing operations .

(*ii*) To determine labour cost ,considering the labour time with the help of wage rates

(*iii*) To determine cost of materials to be purchased from outside.

(*iv*) To determine the cost of tools , equipment etc ., to be purchased from outside.

(*v*) To determine different overhead charges including selling ,packing and transportations charges.

SOURCES OF ERROR IN ESTIMATING :

There may be some errors in estimating . These errors are of the following two types :

(*i*) Unavoidable errors .

(*ii*) Avoidable errors.

(i) Unavoidable error : These are those, which cannot be avoided some of the examples of such errors are given below :

(a) Machinery breakdown .
(b) Power failure.
(c) Accidents.
(d) Drop in the efficiency of workers.
(e) Drop in the efficiency of machines and tools .
(f) Strikes.

(i) Avoidable error : some of the errors can be avoided by the estimator while preparing the estimates .

(a) Poor analysis.
(b) Omission of some factors.
(c) Not considering up-to -date data.
(d) Repetition of some factors .

COSTING

COSTING:-

Costing has been defined by the institute of cost and works Accountants , England as:

The technique and process of ascertaining costs . whereas, Whel don has defined the costing as:

Costing is the classifying , recording , the appropriate allocation of expenditure for the determination of the costs of products or services ; and for presentation of suitably arranged data for the purposes of control , and guidance of management .

AIMS OF COSTING : The important aims and objects of costing are :

(*i*) To determine the cost of each article .

(*ii*) To determine the cost of incurred during each operation , to keep control over workers wages .

(*iii*) To provide information to ascertain the selling price of the project .

(*iv*) To supply information for detection of wastages .

(*v*) It helps in reducing the total cost of manufacture .

(*vi*) It suggests, changes in design , when the cost is higher .

(*vii*) To help in formulating the policies for charging the prices of the products .

ELEMENTS OF COSTING

INTRODUCTION : This topic is very useful in the subject ESTIMATING AND COSTING . In any factory , the cost of the product is calculated , so that the exact idea of the amount of profit can be made . We know that there are hundreds of different items of expenditures , which are incurred in the factory and all these are charged on the product manufactured . No item of expenditure should be left . while calculating the total cost of any product . This total cost is divided into different headings known as Elements Of Cost .

Elements of cost:-

For easy and accurate calaculations, the total cost of a product manufactured can be divided into three main Element. These are:

1) Materials
2) Labour
3) Expenses

1) **Materials:-** These can be further classified into :

(i) Direct materials

(ii) Indirect materials

(i)**Direct Materials**:-These are those materials which when operated or processed in the factory shops through various stages from the final useful shape of the main product or component part of the main product. These are also known as Productive materials.

(ii) **Indirect Materials**:- These are those materials which are essential needed in various shops for helping the materials to be converted into final useful shapes. Difference between direct and indirect forms of materials can be easily understood.

2) **Labour**:- Labour's esmployed in any factory may be of the following two classes:

(i) Direct labour, and

(ii) Indirect labour

(i) **Direct labour**:- The workers, who actually work or process different material manually or wish the aid of machines is known as Direct Labour. This is also called Productive Labour. The nature of their duties is such that their wages can be directly charged to this job, which they are manufacturing.

Workers engaged for operating on various production machines in machine shop and assembly shop etc is known as Direct Labour.

(i) **Indirect Labour**:- Any other labour, who helps the productive labour in performing their duties is known as indirect Labour. The nature of their duties is such that their wages cannot be charged directly to a particular job but are charged on the total number of products produced in the plant during a particular period.

Foremen, Supervisors, Inspectors, Chowkidars, Gate-Keepers,Store keepers, Crane Driver and Gangmen etc. are classified as Indirect labour.

1) **Expenses:-** We haved discussed, direct Material cost and indirect labour cost but apart from this ,you will find that, in in each factory there are serveral other expenditures,such as cost of advertisement, building rent, depreciation charges of palnt and factory building,cost of packing, cost of transportation, Salaries and commission of salesmenetc. All these expenditures are known as Expenses. So we can say that expect direct material and direct labour cost, all other expenses, which are incurred in the factory are known as Expenses.

The cost of Indirect materials and Indirect labour is also included in the expenses.

Expenses may be of two classes.

(ii) Direct or chargeable Expenses, and

(iii) Indirect Expenses.

(i) **Direct Expenses :-** These are those expenses, which can be charged directly to a particular job and are incurred for that specific job only.for example, cost of special jigs and fixtures, cost of some special patterns and cost of experimental work on a particular lob etc

(ii) **Indirect Expenses** :- These are also known as overhead charges, on cost, burden or indirect charges. These can be further classified as:

(a) Factory Expenses

(b) Administrative Expenses

(c) Selling Expenses

(d) Distribution Expenses

Fixed and Variable overheads:-

All overheads described above can be classified into following two forms:

(1) Fixed overheads
(2) Variable overheads

1)Fixed Overheads:-These are those in direct Expenses which remain constant whatever may be the volume of production . Examples of the Overheads are :

(a) Salaries of officers:- These charges are for the salaries and allowances paid to the supervisors, and other Engineers, Officers etc. These are known as supervisors charges and are generally calculated in terms of expenses per machine hour.

(b) Depreciation of machines and equipment:- This is the dimintion in value due to the age ,wear and tear. Various methods of calculating depreciation have been described in detail in next.

(c) Interest on capital invested:- The interest on capital invested is calculated assuming, if the capital is deposited in some bank.lculated

(d) Rent of building and insurance.

2) Variable Overheads:-These are those indirect expenses, which vary with the volume of production. Examples of these over heads are :

(a) Power or fuel consumed:- These are expenses on power (i) if generated in the factory includes expenditure on fuel, salary of power – house staff, expenditure on running and maintenance, and depreciation of power – house building , plants etc. (ii) if bought from other agency, includes charges paid to them.

(b) Repairs and maintenance:- This includes the expenditure incurred on the repairs and maintenance of the machines in the factory. This expenditure is converted into expenditure per machine hour and then charged to various departments of the factory.

(c)Consumable store supplies:- The expenditure made on the salary of store staff , stationary etc. required in stories, lightingcharges for stores and other similar expenses are included in this category.

(d) Expenses on tools :- Generally the tools very short life and are required to be purchased frequently. Hence they are charged in two ways . Firstly, the expenditure incurred on the purchase of such tools are directly charged. Secondly, these are depreciated.

Components of cost:- The various components of cost are:

1) Prime cost
2) Factory cost
3) Office cost
4) Total cost

1)Prime cost :- It consists of direct material cost, direct labour cost and direct expenses.

i.e Prime cost= Direct material cost + Direct Labour cost + Direct expenses.

Prime cost is also named as Direct cost.

2) Factory cost :- It consists of prime cost and facory expenses.

i.e Factory cost = Prime cost + Factory expenses.

Factory cost is also named as Works Cost.

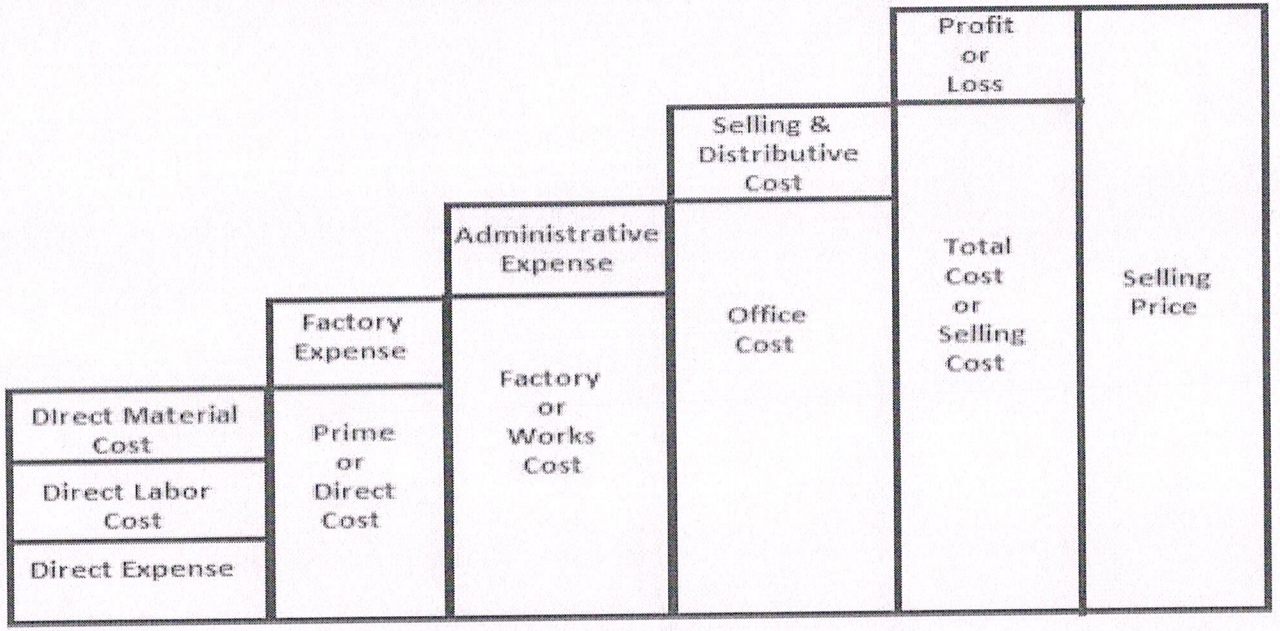
3) cost :- th It consists of factory cost and administrative expenses.

i.e Office cost = Factory cost + Administrative expenses

Office cost is also named as manufacturing cost or cost of production.

4)Total cost :- It includes Office cost and selling and distribution expenses.

i.e Total costs = Office cost+ Selling expenses+ Distribution expenses.



Block diagram to illustrate the relation between 'Elements of Cost' & 'Components of Cost'.

ESTIMATING AND COSTING

Example

Prepare a statement giving the following information:

(i) Material cost (ii) Prime cost (iii) Factory cost (iV) Administrative overheads (V) Selling overheads (Vi) Total cost and (Vii) Profit.

Following data refer to a factory for the financial year ending, 31st March, 1981

1.	*Stock of materi al on 1st April, 1980*	*= Rs. 50 000*
2.	*Material purchased*	*= Rs. 340,000*
3.	*Drml'ing office salaries*	*=Rs. 5,000*
4.	*Rent, taxes and insurance of factory*	*= Rs. 10,000*
5.	*Pay and commission to salesmen*	*= Rs. J(),000*
6.	*Depreciation of equipment*	*=Rs. 200*
7.	*Wages to labour (Direct labour cost)*	*=Rs. -50,000*
8.	*General administrative expenses*	*=Rs. 3400*
9.	*JVater and po11•er for factory*	*= Rs. 9000*
10.	*S:lle of products*	*= Rs. 000 ,000*
11.	*Works A1aw1ger's salary*	*=Rs. 15,000*
12.	*Salary of office staff (including executives)*	*=Rs. 60,000*
13.	*Depreciation of rhe plant*	*= Rs. 8,000*
14.	*Material transportation*	*=Rs. 2,000*
15.	*lVater and lightin J for office*	*=Rs. 3,000*
16.	*Rent, taxes and insur.1nce of office*	*=Rs. 1,500*
17.	*Repairs and maintenance of plant*	*= Rs. 5,000*
18.	*Direct Expenses*	*=Rs. 500*
19.	*Stock of nnterial on 31st \1arch,* ***1981***	*= Rs. 45,000*

Solution: First we have to determine the material cost

Material cost = Stock of material on 1st April 1980+ Material purchased- Stock of material on 31 March 1981

= Rs.50000+Rs. 340000-Rs.450000

=Rs.345000

(i) Prime cost= Direct materials+ Direct labour+ Direct Expenses

= 345000+250000+500= Rs.595000

(i) Factory overheads are:

Rent,taxesand insurance of factory=Rs.10000
Water and Power of factory= Rs.9000
Works mangers salary= Rs.15000
Depreciation of plant = Rs.8000
Material transportation= Rs.2000
Repair and maintenance of plant= Rs.5000
Total = Rs.49000
Factory cost= Prime cost+Factory overheads
= 595000+49000= Rs.644500

(i) Administrative overheads are :

Drawing office salaries= Rs.5000

Depreciation of office equipment= Rs. 200

General administration Expenses= Rs.3400

Salaries of office staff=Rs. 60000

Water and lighting for office=Rs.3000

Rent taxes and insurance of office= Rs. 1500

Total=. Rs.73100

(i) Selling overheads are:

= Pay to salesmen = Rs.1000

(i) Total cost = Factory cost+ Administrative overheads+ Selling Overheads

=644500+73100+10000

=Rs. 727600

(i) Net profit= Selling price-Total cost

= 90000-727600=Rs.172400

ESTIMATION OF WEIGHTS OF MATERIALS & COST OF MATERIAL

PRINCIPLES

- The principles or step by step procedure of estimating weight of material and thus cost of material are as follows:
- - break up the component drawing into simple and meaningful parts
- calculate the volume of each individual part making use of Mensuration formulae
- small fillets and rounded corners may be neglected
- sum up all these volumes to get the total volume of the component
- multiply the volume by density (specific weight) of material if the entire component is made of same material; or else compute weights independently.
- account for scrap and wastage
- direct material cost is obtained by multiplying the weight of component by cost per unit weight of the material.

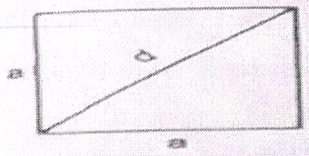
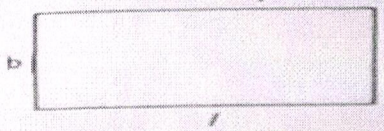
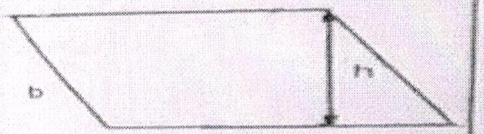
MENSURATION

Mensuration is the science of measuring It is the branch of applied Mathematics which deals with finding the lengths of lines, perimeters and areas of surfaces, volumes of solids etc., The formulae given hereunder will be of immense use and serve for

ready reference in estimating the volumes and weights of given components

7.2.1 Perimeters and Areas of Plane Figures :

Table - 1

FIGURE	DIMENSIONS	PERIMETER (P)	AREA (A)
1. Square 	a : Side d : diagonal	4a	a^2 or $\frac{d^2}{2}$
2. Rectangle 	l : length b : width	2 (l + b)	l × b
3. Parallelogram 	h : height l, b : sides	2 (l + b)	l × h