#### Minutes of DUPC/BOS Meeting

#### DUPC/BOS meeting held on 13<sup>th</sup> Dec 2019, from 11.00 AM onwards.

Following faculty members and experts from institute of higher learning and industry were present for the meeting,

Prof. S. P. Butee (Head of the Department), Prof. N. B. Dhokey, Prof. Neelam Anand, Prof. S. T. Vagge, Prof. P. Deshpande, Prof. S. U. Dangarikar, Dr. A. M. More, Prof. M.G. Kulthe,

Prof. Ajit Kulkarni (IIT-Bombay), Prof. N. Prabhu (IIT-Bombay), Prof. Shantanu Madge (IIT-Jammu), Dr. Satyam Sahay ( John Deere India Pvt. Ltd- Pune)

- A. Results of the concluding semester were discussed. Results as presented by the department were approved as it is. However concerns were raised by the BOS committee members on the result of the Subject: Powder Metallurgy and Tribilogy of Materials, as 50% students failed (refer Annexure-I to see more details). BOS members also saw the answers sheets of students getting highest and lowest marks in the Powder Metallurgy and Tribilogy of Materials subjects and later approved the result it by asking to take steps to improve the quality of students we are getting. It was brought to the notice of the forum to relook at the performance of these failed students in the upcoming reexam.(Action: HoD, Meta).
- B. To improve structurally in the subjects that have high failing percentage BOS members suggested having a holistic approach while setting question papers and a question paper to be set in a way that average students can score above 50% of the marks. Experts also commented if the faculty desires he/she may declare in the initial stage the minimum passing marks and minimum marks required for AA grade (Action: All Faculty).
- C. SYLLABUS STRUCTURE structure for SY/TY/B.Tech. was also discussed and experts suggested following:
  - 1. Artificial intelligence should be included as a MOOC course (Action: PGR).
  - 2. PG level in future department may add ICME as a new M.Tech. Program and help from experts in the field like Prof. Asim Tiwari of IIT Bombay can be sought (Action: HoD, Meta).
  - 3. A dedicated subject on design and drawing specific to metallurgical structures like casting riser gate design, welding design, welded structures, 3D printing **or** some

- design aspect to be included in respective core subjects like Foundry, Powder Metallurgy, Welding/ Material Joining etc. (Action: Concerned subject teachers)
- 4. The Subject Mechanical Technology of SY is described as too descriptive and can be modified by including design aspects related to 3D printing, casting riser gate design, welding design. Engg. drawing and other design required for metallurgical structures (Action: HoD, Meta).
- 5. Prof. Kamble and Prof. Poddar to sit together to identify and remove overlap in the subjects, 'Materials Processing for Electronic Devices' and Materials and Processes for E-mobility, if any (Action: KK and VP).
- 6. Magnetic materials to be taught in terms of applications. Input from others departments for two similar subjects that are being offered to E and M group also to be taken. Depending on inputs the tailored syllabus is to be presented in the upcoming BOS (Action: VP).
- 7. Thermodynamic Principles in the design of high strength bainitic steels may be added in the SY subject: Metallurgical Thermodynamics and kinetics (Action: PGR).
- 8. Fundamentals of Metal Working laboratory of 4 hours per week to be reduce to 2 hours per week and reduced credit is to be matched by introducing 1 hour Tutorial in the theory course (Action: AMM).
- 9. Principles of physical metallurgy laboratory of 4 hours per week to be reduce to 2 hours per week and 1 reduced credit is to be matched by introducing 2 hour laboratory course for Mechanical Technology of 1 credit (Action: SUD).

With these minor changes as mentioned above the SY syllabus structure is approved by the BOS.

D. Analytical content analysis of question papers is presented in Annexure-II. It is discussed in the BOS meeting.

BOS Meeting Concluded with the vote of thanks to the experts for the valuable inputs.

### **Annexure-I**

# DEPARTMENT OF METALLURGY AND MATERIALS SCIENCE, COEP PUNE-5

S.Y.Metallurgy Result Analysis (Examination Year December 2017)

Sr.	Subject Code	Subject	Min. Passing mark	Max. Marks	Pass Percentage
	NATA/O	Structure and Properties	40	00	04.44
	MT160	of Materials	40	89	94.44
	MT16024	Materials Testing Lab	40	88	90.00
		R-Principles of Physical			
	MT16013	Metallurgy	35	91	85.29
		B-Principles of Physical			
	MT12002	Metallurgy	35	91	66.67
		OB-Principles of Physical			
	MT203	Metallurgy	35	91	100.00
	MT16018	PPM Lab	40	94	100.00
		Introduction to Ceramic			
	MT16004	Engineering	35	85	87.40
	PE	Fundamentalf of Metallurgy	33	86	75.71
	PE	FOM Lab	45	87	100.00

# DEPARTMENT OF METALLURGY AND MATERIALS SCIENCE, COEP PUNE-5 T.Y.Metallurgy Result Analysis (Examination Year December 2017)

Sr. no.	Subject Code	Subject	Min. Passing mark	Max. Marks	Pass Percentage
1	Regular	Transport Phenomena	35	89	92.31
2	Backlog	B-Transport Phenomena	35	89	100.00
3	Backlog(old)	<b>OB-Transport Phenomena</b>	35	89	100.00
5	Regular	R-Iron Making	35	82	96.97
6	Backlog	B-Iron Making	35	82	60.00
7	Regular	OB-Iron Making	35	82	100.00
		R-Heat Treatment			
9	Regular	Technology	35	90	88.06

		B-Heat Treatment			
11	Regular	Technology	35	90	50.00
12	Regular	R-HTT Lab	35	89	91.04
13	Regular	B-HTT Lab	35	89	100.00
		Mineral Processing and			
14	Regular	Extraction of Materials	35	89	91.43
15	Regular	MPEM Lab	50	68	100.00
		Wire Drawing and			
		<b>Sheet Metal Forming</b>	35	87	96.00
		Nondestructive Testing	45	82	100.00
		Tribology of Materials	38	62	65.00

# DEPARTMENT OF METALLURGY AND MATERIALS SCIENCE, COEP PUNE-5 B.Tech Metallurgy Result Analysis (Examination Year December 2018)

Sr.	Subject	Subject	Min.	Max.	Pass
no.	Code		Passing	Marks	Percentage
			mark		
1	Regular	Materials Joining	40	88	91.43
2	Backlog	B-Materials Joining	40	60	33.33
3		Materials Joining LAB	40	94	100.00
		R-Corrosion and Surface			
4	Regular	Protection	39	86	86.96
		B-Corrosion and Surface			
5	Backlog	Protection	39	52	100.00
6	Backlog	CSP Lab	52	87	100.00
7	Regular	<b>Electronic and Magnetic Materials</b>	35	90	85.00
		B-Electronic and Magnetic			
8	Regular	Materials	35	73	67.00
9	Backlog	Powder Metallurgy	35	66	50.00
10	Regular	B-Powder Metallurgy	35	66	25.00
		Nanomaterials and			
11	Backlog	Nanotechnology	47	90	83.00
12	Regular	Fracture of engineering materials	40	79	100.00
13		Project Stage -I	40	90	100.00
14	Regular	MOOCS	40	84	100.00
		Selection of Material and			
15		Processes	56	86	100.00

### DEPARTMENT OF METALLURGY AND MATERIALS SCIENCE, COEP PUNE-5 <u>FY MTECH(Materials Engineering) Result Analysis (Examination Year May</u> 2017)

Sr. no.	Subject Code	Subject	Min. Passing mark	Max. Marks	Pass %
		Mathematical Modelling of			
		Metallurgical Processes	38	80	100.00
		Corrosion Engineering	39	67	100.00
		Phase Transformation	41	87	100.00
		Concepts in Materials Science	35	88	100.00
		Adv.Ceramic Engineering	40	69	100.00
		Nanomaterials & Nanotechnology	66	87	100.00
	ILOE	Lab Practice -I	50	82	91.67
	ILOE	Seminar-I	40	82	66.67
		Advanced Composites	35	77	91.67

### DEPARTMENT OF METALLURGY AND MATERIALS SCIENCE, COEP PUNE-5 M.TECH Process Metallurg Result Analysis (Examination Year Nov. 2017)

Sr. no.	Subject Code	Subject	Min. Passing mark	Max. Marks	Pass %
		Advanced Iron and steel making	41	75	100
		Solidification of Mateials and Joining Processes	35	88	100.00
		Heat and Mass Transfer	35	87	100.00
		Concepts in Materials Science	35	88	100.00
	ILOE	Advanced Composites	35	77	75.00
		Lab Practice -I	50	86	91.67
		Seminar-I	40	77	75.00
		Heat Treatment Technology	35	69	100.00
		Powder metallurgy	35	66	50.00

 $\underline{\textbf{Annexure-II}}$  Numerical Content analysis of UG question papers is as follows:

Sr.no	Subject	<b>T1</b>	<b>T2</b>	ESE	Total	Q PAPER As per EXAM CELL FORMAT
		S.Y	.B.Tech N	Metallurg	y	
1	PPM	8	4	23	35	YES
2	SPM	10	5	20	35	YES
3	ICE	10	10	20	40	YES
5	FOM Th	0	5	7	12	YES
		T.Y	.B.Tech	Metallurg	y	
1	TP	14	14	42	70	YES
2	IM	4	10	10	24	YES
3	HTT	2	0	8	10	YES
4	MPEM	4	3	16	23	YES
5	WDSM	2	6	14	22	YES
6	TOM	0	0	0	0	YES
7	NDT	0	0	12	12	YES
		В	Tech Me	etallurgy		
1	CSP	NR	NR	30	30	YES
2	MJ	5	0	16	21	NO
3	EMM	6	5	22	33	YES
4	FEM	5	5	22	32	YES
5	PM	2	1	5	8	YES
6	NMNT	NR	NR	5	5	No
7	SMP	10	5	24	39	YES

## Numerical Content analysis of PG question papers is as follows:

Sr.	Subject					Q PAPER
no.						As per
						EXAM
				ES		CELL
		<b>T1</b>	<b>T2</b>	E	Total	FORMAT
	F.Y.M.Tech Metallurgy (Materials	Enginee	ring)& ]	Process	s metallu	rgy
	CONCEPTS IN MATERIALS					YES
1	SCIENCE	4	6	28	38	
2	ADVANCED COMPOSITES	0	0	19	19	YES
	F.Y.M.Tech Metallurgy	(Materia	ıls Engi	neering	g)	
1	PHASE TRANSFORMATION	5	4	24	33	YES
	MATHEMATICAL					
	MODELLING IN					
2	METALLURGICAL PROCESSES	10	0	23	33	YES
	Nanomaterials and					
3	Nanotechnology	0	0	5	5	No
4	Adv. In Ceramic Engg.	0	0	15	15	YES
5	CORROSION ENGINEERING	0	0	30	30	YES
	F.Y.M.Tech Metallurg	gy (Proces	ss Metal	lurgy)		
	ADVANCED IRON AND STEEL					
1	MAKING	3	4	12	19	Yes
	SOLIDIFICATION OF					
	MATERIALS					
2	AND JOINING PROCESSES	0	10	20	30	Yes
3	HEAT AND MASS TRANSFER	14	14	42	70	YES
4	<b>Heat Treatment Technology</b>	2	0	8	10	Yes
5	POWDER METALLURGY	0	0	5	5	YES

	DEPARTMENT OF METALLURGY AND MATERIALS SCIENCE, COEP PUNE-5					
<u>S</u> .	S.Y.Metallurgy Result Analysis (Examination Year December 2017)					
Sr.	Subject	Subject	Min.	Max.	Pass	
no.	Code		Passing	Marks	Percentage	
			mark			

	Structure and Properties			
MT160	of Materials	40	89	94.44
MT16024	Materials Testing Lab	40	88	90.00
	R-Principles of Physical			
MT16013	Metallurgy	35	91	85.29
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	Introduction to Ceramic			
MT16004	Engineering	35	85	87.40
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