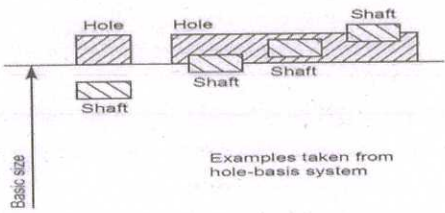
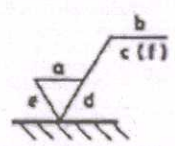


SCHEME OF VALUATION
(Scoring Indicators)

Revision:2015

Course Code:4026

Course Title: PRODUCTION DRAWING

Qst No	Scoring Indicator	Split up score	Sub Total	Total
Part A				
I (1)	 <p style="text-align: center;">Examples taken from hole-basis system</p>	2.5 Marks for each representation	2.5+2.5	5
I (2)	<p>(1) Hole 50^{+25}_0</p> <p style="padding-left: 20px;">Shaft 50^{-0}_{-16}</p> <p>(2) Hole 55^{+16}_0</p> <p style="padding-left: 20px;">Shaft 55^{+51}_{+32}</p>	2.5 Marks for each	2.5 +2.5	5
I (3)	 <ul style="list-style-type: none"> a = Roughness value, R_a in micrometres, b = Roughness grade numbers N_1 to N_7, c = Sampling length, d = Direction of lay, e = Machining allowance and f = Other roughness values. 	Symbol-2.5 Surface texture charct-2.5	2.5+2.5	5
I (4)	Operation-process charts, flow process charts, man and machine process charts, operation process charts, progress process charts, miscellaneous process charts	Any 5.Each carries 1 marks	1x5=5	5

SCHEME OF VALUATION
(Scoring Indicators)

Revision:2015

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Qs t No	Scoring Indicator	Split up score	Sub Total	To tal
Part B				
II (1)	<p>Minimum limit of the hole = Basic size of the hole = $\phi 40$ mm</p> <p>Maximum limit of the hole = (Minimum limit of the hole) + (Tolerance on the hole) = $\phi 40 + 0.021$ mm = $\phi 40.021$ mm</p> <p>Minimum interference = (Maximum limit of the hole) - (Minimum limit of the shaft)</p> <p>i. e., $-0.001 = 40.021 - (\text{Minimum limit of the shaft})$</p> <p>$\therefore$ Minimum limit of the shaft = $40.021 + 0.001 = 40.022$ mm</p> <p>Maximum limit of the shaft = (Minimum limit of the shaft) + (Tolerance on the shaft) = $\phi 40.022 + 0.013 = \phi 40.035$ mm</p>	Limit calculati on=10 Fig-5	10+5=15	15

II
(2)

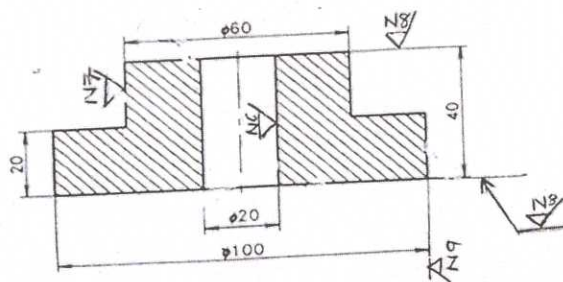
OPERATION CHART							
NAME : Locating pin		MATERIAL: Steel		WEIGHT / PIECE : 0.45kg			
PART NO : 93 0031 06		SPEC. IS : 666 PART- I		TOTAL OPERATIONS : 11			
DRG. NO : LP 0030 09		SIZE : ϕ 25 x 106		CYCLE TIME : 35 minutes			
EQUIPMENT : Drill Jig		QTY. REQD : 20		APPROVED :			
SEQUENCE	DEPT.	OPERATIONS	MACHINES	TOOLS / GUAGE	SET UP TIME (Minute)	OPEN TIME (Minute)	REMARKS
05	D ₁	Remove bar stock to Turning department D ₂	Truck	—	—	1	
10	D ₂	Hold bar stock in self centering chuck machine to ϕ 24 for an approximate length of 106 mm	Lathe	Turning tool	1	4	
15	"	Rough machine ϕ 18 for a length of 70 mm	"	"	—	6	
20	"	Face the end	"	Facing tool	1	2	
25	"	Finish machine of ϕ 24	"	Turning tool	—	4	
30	"	Finish machine of ϕ 16 h 6	"	"	—	5	
35	"	Thread M 16	"	Threading tool	1	3	
40	"	Chamfer the edge	"	Chamfering tool	1	1	
45	"	Part the pin from the bar stock	"	Parting tool	1	2	
50	"	Inspect the Locating pin	—	Gauges	—	1	
55	D ₁	Store in bin	—	—	—	1	
Total					5	30	

Chart preparation=15

15

15

II
(3)



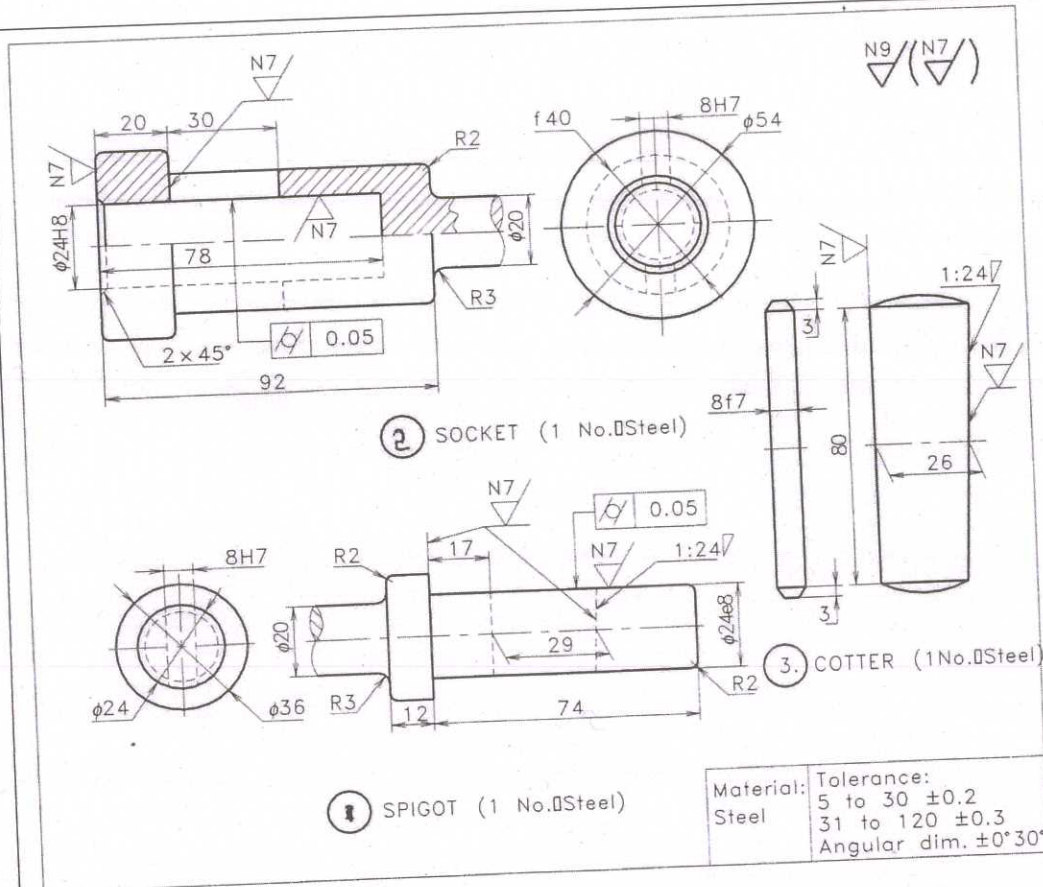
3 marks for each roughness value marking as per BIS

3x5=15

15

6. Surface finish values on mating surface N8 on crank holes, crank pin and N7 on crank shaft etc.....5
 7. All other surface roughness value of N9() on top right side.....5
 Total=50 Marks

III
(2)



ITEM LIST

Item	Description	Qty.	Material
1	Spigot	1	M. S.
2	Socket	1	M. S.
3	Cotter	1	M. S.

Marks Distribution

- Disassembled drawing of socket and spigot joint with relevant views, dimensions and item list.....20
- Spigot inside socket is fitted with easy running fit H8/e8.H8 on socket and e8 on spigot.....5
- Cotter pin is fitted with normal running fit H7/f7. H7 on spigot and f7 on cotter.....5
- Bore of the socket and cylindrical surface of spigot are to be marked with Cylindricity tolerance value of 0.05.....10
- All the mating surfaces are to be finished with a roughness of N7.....5
- All the remaining surfaces are to be finished with a roughness value of N9() on right top.....5

Total=50 marks