

GOVERNMENT POLYTECHNIC, SHEOHAR		
DEPARTMENT OF MECHANICAL ENGG.		
QUESTION BANK		
SUBJECT:-Manufacturing Engg. Sem :-3rd		
s.no	Question	Unit
1	Compare Turning, Step Turning, Taper Turning and Parting Off Operation ?	1
2	A person wants to make a taper shape on a bar with a specification of D1=8 mm and D2=4mm and a Length of 10mm. Calculate the taper Angle for swing of compound rest?	1
3	A person wants to hold the work piece in lathe machine. work piece shape round irregular, small types of chuck use for respective shape of work piece?	1
4	List any four properties of lubricants?	1
5	List any four functions of cutting fluid?	1
6	Discuss the criterion for selection of cutting fluid?	1
7	Explain any two of the following lathe operations 1)knurling 2)boring 3)threading	1
8	Define following operations on lathe:(a) Knurling (b) Threading	1
9	Discuss the classification of cutting fluids with their properties and applications.	1
10	Explain the operation and tools required for any two of the following lathe operations:(a) Turning (b)Facing (c) Boring (d) step turning	1
11	Classify different types of lubricants used in machining	1
12	Explain the following terms-(a) Step turning (b) Notching	1
13	Describe CNC machine and write down its advantages.	1
14	Explain with neat sketch thread cutting operation on lathe machine	1
15	Draw the sketch diagram of lathe machine and write down its main parts	1
16	Sketch and describe the essential elements of a twist drill?	2
17	Explain the construction and working principle of horizontal type broaching machine with a neat sketch?	2
18	Differentiate between horizontal type and vertical type broaching machine for four differentiates.	2
19	Differentiate between drills and reamers for four differences.	2
20	Explain drill bit parts and their respective functions with neat sketches.	2
21	Write the name of different types of broaching machines. Explain any one of them in details.	2
22	Describe the essential elements of a broaching tool.	2
23	Define the following:(a) Reaming (b) Boring	2
24	Sketch and describe the essential elements of a twist drill.	2
25	Explain the construction and working principle of horizontal type broaching machine with a neat sketch.	2
26	Write the advantages and limitations of broaching	2
27	Sketch the geometry of twist drill and write the name of its main parts.	2
28	Write the required equipments for arc welding process and also write its applications.	3
29	Explain differential indexing in milling machines.	3
30	List out the four welding defects with their causes and remedies.	3
31	Write the name of different types of milling machines. Explain any one of them in details.	3
32	List any four welding defects.	3
33	Explain Simple Indexing.	3
34	Write the advantages of manufacturing gears by shaping method.	3
35	Explain the following with neat sketch a)Face Milling b)Down Milling	3
36	Write the advantages and limitations of submerged arc welding process.	3
37	Differentiate between soldering and brazing (At least four points)	3
38	Write the advantages and disadvantages of TIG welding.	3
39	Discuss the different types of welding flames.	3
40	Explain compound indexing in milling machine	3
41	Differentiate between end milling and face milling operation.	3
42	Explain spot welding process with neat sketch and write its application	3
43	Describe the characteristics required for a lubricant.	4
44	Explain any one of the following sheet metal operations:(a) Punching (b)Notching (bending	4
45	Write the heat treatment process applied to gears.	4
46	Write short notes on any two of the following gear manufacturing methods.(a) Casting (b)Stamping (c)Rolling (d)Gear shaping	4
47	Explain the following gear finishing processes-a)Gear Grinding b)Gear Burnishing	4
48	List the various operations that can be carried out with press. Describe any two of them in brief.	4
49	Explain the function of any two of the following components of diesel (a) Bolster plate (b) Stripper (c) Guide pin	4
50	Explain the following terms-(a) Hobbing (b) stamping	4
51	Explain any two of the following organic coatings.a)Enamels b)oil base paint	5
52	Discuss the different types of abrasives used for grinding wheels.	5
53	Differentiate between Galvanizing and parkerizing with four differences.	5

54	Classify the grinding machines and write the composition of grinding wheel.	5
55	Describe center less grinding. Also write the advantages and disadvantages of this process.	5
56	list the name of abrasive used in grinding wheel?	5
57	Describe the Indian Standards method of specifying a grinding wheel with the help of an example.	5
58	Discuss the advantages and limitations of centerless grinding operation.	5
59	Write short notes on any two (a) Oil- base point (b) Galvanizing (c) Rubber base coating.	5
60	Explain the designation of grinding wheel.	5
61	Explain any one of the following a)Glazing b)Dressing	5
62	Explain basic principle of electroplating and write its applications.	5
63	Describe centerless grinding with the help of neat sketch.	5
64	Expain galvanizing process and wite its advantages	5