

Program: BE Mechanical Engineering

Curriculum Scheme: Revised 2016

Examination: Third Year Semester V

Course Code: MEDLO5012 and Course Name: Machining Sciences and Tool Design

Time: 1hour

Max. Marks: 50

Note to the students:- All the Questions are compulsory and carry equal marks .

Q1.	If in an orthogonal turning process, the chip thickness = 0.32 mm, feed = 0.2 mm/rev. Then the chip thickness ratio will be:
Option A:	2.6
Option B:	3.2
Option C:	1.6
Option D:	0.625
Q2.	Chips formed in orthogonal cutting are in form of.....
Option A:	Discontinuous
Option B:	Coils in tight, flat spiral
Option C:	Long curl
Option D:	Continuous with BUE
Q3.	In an orthogonal turning process, the chip thickness ratio = 0.28 mm, rake angle = 10° and friction angle = 46° , Then the value of shear angle will be:
Option A:	30.58°
Option B:	26.17°
Option C:	16.17°
Option D:	20.58°
Q4.	To reduce the wear of tool on harder material it should be machined at.....
Option A:	Lower cutting speed & smaller feed
Option B:	Lower cutting speed & higher feed
Option C:	Higher cutting speed & lower feed
Option D:	Higher DOC & lower feed
Q5.	Secondary deformation zone in metal cutting operation is located at:
Option A:	Shear plane
Option B:	Tool chip interface
Option C:	Tool work piece interface
Option D:	Tool face
Q6.	In ORS system of $i-\alpha-\gamma-\gamma_1-Ce-\lambda-R$, symbol Ce stands for ?
Option A:	cutting edge angle
Option B:	back rake angle

Option C:	relief angle
Option D:	shear angle
Q7.	If heat transferred to atmosphere is neglected, then the average amount of heat in % transferred to tool is nearly equal to:
Option A:	70
Option B:	15
Option C:	20
Option D:	96
Q8.	In milling cutter, the additional space provided behind the relieved land (primary relief) of a cutter to eliminate undesirable contact between the cutter and the workpiece is called as?
Option A:	Undercut
Option B:	Contour
Option C:	Groove
Option D:	Clearance
Q9.	Hardness at elevated temperature called as
Option A:	Softness
Option B:	Brittleness
Option C:	Hot hardness
Option D:	Strength
Q10.	following material increase corrosion resistance property
Option A:	Chromium
Option B:	Iron
Option C:	Silica
Option D:	Sulfur
Q11.	CBN stand for
Option A:	Cubic Boron Nitride
Option B:	Cubic Boron Nitric
Option C:	Carbon Boron Naphete
Option D:	Cubic Boro Nitrate
Q12.	following tool material has lower hardness and wear resistance
Option A:	Cermets
Option B:	HSS
Option C:	Carbide
Option D:	CBN
Q13.	crater wear observed on
Option A:	flank face
Option B:	rake face
Option C:	side edge
Option D:	flank edge
Q14.	Flank wear observed on

Option A:	flank face
Option B:	rake face
Option C:	Shank
Option D:	Base
Q15.	breaking away of a small piece from the cutting edge of the tool
Option A:	Flacking
Option B:	Chipping
Option C:	Trimming
Option D:	Cutting
Q16.	Which of the following is the tool nomenclature system?
Option A:	Orthogonal Rake System (ORS)
Option B:	Operational Rake System (ORS)
Option C:	Computational Rake System (CRS)
Option D:	Isometric Rake System (IRS)
Q17.	Which of the following is the tool nomenclature system for single point cutting tool?
Option A:	Numerical rake system (NRS)
Option B:	Maximum rake system (MRS)
Option C:	Edge rake system (ERS)
Option D:	Original rake system (ORS)
Q18.	MRS in single point cutting tool nomenclature stands for ?
Option A:	Mass Rake System
Option B:	Minimum Rake System
Option C:	Maximum Rake System
Option D:	Modified rake system
Q19.	The surface or surfaces below and adjacent to the cutting edge is called _____ of the tool.
Option A:	Body
Option B:	Shank
Option C:	Edge
Option D:	Flank
Q20.	The point where the side cutting edge and end cutting edge intersect is called as _____ of the tool
Option A:	Nose
Option B:	Heel
Option C:	Shank
Option D:	Face
Q21.	In milling cutter, the shaft on which the arbor type cutters are mounted or driven is called as?

Option A:	Arbor
Option B:	Land
Option C:	Face
Option D:	Cutter body
Q22.	In milling cutter , the cutting edge angle which a helical cutting edge makes with a plane containing the axis of a cylindrical cutter is known as?
Option A:	relief angle
Option B:	Helix angle
Option C:	Shear angle
Option D:	Face angle
Q23.	In milling cutter, the angle in a plane perpendicular to the axis of the cutter, between the face of the tooth and a radial line passing through the cutting edge is known as?
Option A:	radial rake angle
Option B:	helix angle
Option C:	relief angle
Option D:	shear angle
Q24.	The chip and coolant space between the back of one tooth and the face of the following tooth of milling cutter is know as?
Option A:	Flank
Option B:	Land
Option C:	Flute or gash
Option D:	Shank
Q25.	Range of helix angle for plain helical milling cutters is
Option A:	80 - 90 degree
Option B:	180 - 190 degree
Option C:	150 - 160 degree
Option D:	20 - 30 degree