

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Program: BE Mechanical Engineering

Curriculum Scheme: Rev2016

Examination: Third Year Semester V

Course Code: BMEDLO5011 and Course Name: Press Tool Design

Time: 1 hour

Max. Marks: 50

=====

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

Q1.	Flange wrinkling is the defect found in
Option A:	Spinning
Option B:	Bending
Option C:	Deep drawing
Option D:	Cold rolling
Q2.	In Hydraulic press, the force applied by ram through out stroke is
Option A:	Constant
Option B:	Adjustable
Option C:	Variable, depending on slide position
Option D:	Non uniform
Q3.	Angular clearance are provided on dies, this is of the order?
Option A:	5° to 10°
Option B:	3° to 5°
Option C:	0.5° to 1°
Option D:	0.1° to 0.5°
Q4.	The function of _____ is to eject workpiece from die cavity after the press operation.
Option A:	Stop
Option B:	Pilot
Option C:	Knockout
Option D:	Stripper
Q5.	In mechanical press, force available from press is maximum at
Option A:	90 degrees crank angle
Option B:	45 degrees crank angle
Option C:	Bottom Dead Centre
Option D:	Throughout stroke
Q6.	If blank is our final product, clearance is provided on the....
Option A:	Die
Option B:	Punch
Option C:	Half on die and half on punch
Option D:	Die or punch depending on material and thickness of sheet
Q7.	Effect of sheet thickness on clearance if thickness is increased?
Option A:	Increases
Option B:	Decreases

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Option C:	No effect
Option D:	First decreases and then increase
Q8.	Which of the parameter does not include in designing of bending die
Option A:	Bend radius
Option B:	Bend Allowance
Option C:	Bending pressure
Option D:	Stripper plate
Q9.	Tool life _____ with increase in die clearance.
Option A:	decreases
Option B:	remains constant
Option C:	changes with specific conditions
Option D:	increases
Q10.	Tab when left without removing any material is called
Option A:	Perforating
Option B:	Parting
Option C:	Notching
Option D:	Lancing
Q11.	Which is the not type of mechanical overload limiting device?
Option A:	Die set
Option B:	Shear collars device
Option C:	Stretch links device
Option D:	Shear Pins devices
Q12.	Calculate die opening factor (K) for a 45° bend in aluminium blank. the following data is given : Blank thickness (t) = 1.6 mm Bend length (l) = 1200 mm Die - opening (w) = 8 * metal thickness(t) Ultimate tensile strength (σ_{ut}) = 455 N/mm ² Bending force (F) = 145.24 KN
Option A:	0.133
Option B:	0.122
Option C:	1.33
Option D:	1.22
Q13.	In blanking operation, the strip has to be advanced a correct distance, the device used is called _____
Option A:	Stock guide
Option B:	Stock Stop
Option C:	Stripper plate
Option D:	Knock out

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Q14.	In designing of drawing die, if the d/r ratio is between 10 and 15 then the formula for calculating blank size will be ? D = Flat Blank Diameter d = Finished Shell diameter h = Height of the finished shell r = radius of bottom corner
Option A:	$D = (\sqrt{d^2 + 4dh}) - r$
Option B:	$D = (\sqrt{d^2 + 4dh}) - 0.1r$
Option C:	$D = (\sqrt{d^2 + 4dh}) - 0.5r$
Option D:	$D = (\sqrt{d^2 + 4dh}) - 0.8r$
Q15.	Compound dies which operations may be performed at one station.
Option A:	Cutting
Option B:	Bending
Option C:	Drawing
Option D:	Cutting, Bending
Q16.	The process of Moving a small straight punch up and down rapidly into a die known as?
Option A:	Perforating
Option B:	Parting
Option C:	Nibbling
Option D:	Lancing
Q17.	Find the force required to shear a 35 mm diameter hole in a 3 mm thick M.S. sheet. (Ultimate Shear strength = 400 N/mm ²)
Option A:	10.5 tonnes
Option B:	13.5 tonnes
Option C:	16 tonnes
Option D:	6 tonnes
Q18.	In drawing operation the metal flows due to _____
Option A:	Work hardening
Option B:	Ductility
Option C:	Plasticity
Option D:	Shearing
Q19.	Following type of sheet is used for making food containers
Option A:	Mild steel sheets
Option B:	Stainless steel sheet
Option C:	Galvanized iron sheet
Option D:	Tin plate
Q20.	One of the following type of die are used for producing coins, ornaments, medals, table piece wall piece.
Option A:	Embossing die
Option B:	Compound die
Option C:	Conning die

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Option D:	Combination die
Q21.	Determine the angle of bend when bending allowance (B) is 2.61 mm, inside radius (r) is 0.90 mm, thickness (t) is 2.3 mm, and assume $k = t/3$.
Option A:	45°
Option B:	90°
Option C:	180°
Option D:	360°
Q22.	Find the die clearance range for 4 mm thick M.S. sheet. (Clearance percent of sheet 2.5- 5 %)
Option A:	0.5 mm - 0.6 mm
Option B:	0.1 mm - 0.2 mm
Option C:	0.2mm - 0.3mm
Option D:	0.4mm - 0.5mm
Q23.	To compensate spring back, which technique is used
Option A:	Overbending
Option B:	Knockout
Option C:	Stock Stop
Option D:	Stripper
Q24.	As the clearance increases, the punch force required?
Option A:	Decreases
Option B:	Increases
Option C:	Remains same
Option D:	First increases and then decreases
Q25.	Why strip layout process is carried out
Option A:	As routine work
Option B:	Maximum utilization of material
Option C:	Press operations are incomplete without it
Option D:	Part of the press operation

University of Mumbai
Examination 2020 under cluster 4 (PCE)

Program: BE Mechanical Engineering

Curriculum Scheme: Rev2016

Examination: Third Year Semester V

Course Code: BMEDLO5011 and Course Name: Press Tool Design

Time: 1 hour

Max. Marks: 50

Question	Correct Option (Enter either 'A' or 'B' or 'C' or 'D')
Q1.	C
Q2.	A
Q3.	C
Q4	C
Q5	C
Q6	B
Q7	A
Q8.	D
Q9.	D
Q10.	D
Q11.	A
Q12.	C
Q13.	B
Q14.	A
Q15.	A
Q16.	C
Q17.	B
Q18.	C
Q19.	D
Q20.	C
Q21.	B
Q22.	B
Q23.	A
Q24.	A
Q25.	B