

These are sample MCQs to indicate pattern, may or may not appear in examination

**University of Mumbai
Online Examination 2020**

Program: BE Automobile Engineering	
Curriculum Scheme: Revised 2016	
Examination: Third Year Semester V	
Course Code: AEDLO5011	
Course Name: Press Tool Design	
Q1.	Which of these occurs first in sheet metal cutting operation
Option A:	Rollover
Option B:	Burnish
Option C:	Fracture
Option D:	Burr
Q2.	Removing the pieces from the edge in shearing operation is known as
Option A:	Perforating
Option B:	Parting
Option C:	Notching
Option D:	Lancing
Q3.	Which of these is the lowest part of the press frame
Option A:	Bed
Option B:	Bolster plate
Option C:	Die set
Option D:	Die block
Q4.	The mechanism connected to and operated by the press ram, for freeing the work piece
Option A:	Stripper
Option B:	Backup plate
Option C:	Knock out plate
Option D:	Upper shoe
Q5.	Fasteners are located in die at distance of
Option A:	1.5* Screw diameter
Option B:	2* screw diameter
Option C:	3.5*screw diameter
Option D:	0.5* screw diameter
Q6.	Lower shoe or die holder is bigger from all sides than die by
Option A:	10mm
Option B:	100mm
Option C:	0.1mm

Option D:	100mm
Q7.	Sharpening allowance provided in punch length is in the range
Option A:	20-25mm
Option B:	60-85mm
Option C:	6-12.5mm
Option D:	10-12.8mm
Q8.	Front or back scrap can be calculated as
Option A:	$t + 0.015 \cdot h$
Option B:	$h + 0.015 \cdot t$
Option C:	$t - 0.015 \cdot h$
Option D:	$(t + h) \cdot 0.015$
Q9.	$x_1, x_2, x_3 \dots$ are the distance of centroids of line elements $L_1, L_2, L_3 \dots$ from
Option A:	X- axis
Option B:	Y - axis
Option C:	Z - axis
Option D:	Neutral axis
Q10.	Calculate the maximum cutting force required to produce, No of pieces (N_p) - 1200
Option A:	40.82 KN
Option B:	80.42 KN
Option C:	82.42KN
Option D:	42.82KN
Q11.	I.S. Code for Tool and Die steels for cold work is
Option A:	IS: 3749-1986
Option B:	IS: 3749-1966
Option C:	IS: 3750-1966
Option D:	IS: 4749-1967
Q12.	A longer life of tools for different press working operations can be achieved by using
Option A:	Tungsten and cobalt carbides
Option B:	Platinum and carbides
Option C:	Brazing tip
Option D:	Titanium and carbides
Q13.	Which of the following sheets are coated with zinc
Option A:	Mild steel sheets
Option B:	Stainless steel sheets
Option C:	Galvanized iron sheets
Option D:	Tin sheets

Q14.	<p>In designing of drawing die, if the d/r ratio is between 10 and 15 then the formula for calculating blank size will be ?</p> <p>D = Flat Blank Diameter d = Finished Shell diameter h = Height of the finished shell r = radius of bottom corner</p>
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.	<p>Calculate the bending force for channel bending for the following data :</p> <p>Thickness of blank (t) = 3.2 mm Bending length (l) = 900 mm Punch radius = Die radius = 9.5 mm Ultimate tensile strength of the material (σ_{ut}) = 400 N/mm² Die opening width (w) = 22.2 mm Die opening factor (K) = 0.67</p>
Option A:	110.25 KN
Option B:	109.25 KN
Option C:	100.25 KN
Option D:	111.25 KN
Q16.	<p>Select the correct formula for calculating Bend allowance.</p> <p>B = Bend allowance along neutral axis, cm α = Bend angle in degree r = Inside radius of bend, cm k = Distance of neutral axis from inside surface of the bend</p>
Option A:	$B = (\alpha/360) * (2\pi (r + k))$
Option B:	$B = (\alpha/360) * (\pi (2r + k))$
Option C:	$B = (\alpha/360) * (2\pi (r + 2k))$
Option D:	$B = (\alpha/360) * (\pi (r + k))$
Q17.	<p>A cup of 60 mm outer diameter (d) and 70 mm depth (h) is to be drawn from 1.0 mm thick (t) cold rolled steel with tensile strength (σ_{ut}) of 410 MPa the corner radius (r) is 1.5 mm. Find the size of the blank (D) and drawing pressure (F). (Assume C = 0.65)</p>
Option A:	25.058 mm and 124.859 KN
Option B:	142.828 mm and 133.735 KN
Option C:	115.235 mm and 859.235 KN

Option D:	55.265 mm and 589.112 KN
Q18.	Flange wrinkling is the defect found in
Option A:	Spinning
Option B:	Bending
Option C:	Deep drawing
Option D:	Cold rolling
Q19.	In drawing operation the metal flows due to _____
Option A:	Work hardening
Option B:	Ductility
Option C:	Plasticity
Option D:	Shearing
Q20.	Determine the angle of bend when bending allowance (B) is 2.61 mm, inside radius
Option A:	45°
Option B:	90°
Option C:	180°
Option D:	360°
Q21.	Embossing is a process of
Option A:	Shallow forming
Option B:	pressing material
Option C:	Internal forming
Option D:	Changing flat,precut metal
Q22.	Coining operations are generally performed in
Option A:	Hot Condition
Option B:	Intermediate Condition
Option C:	Sub cold condition
Option D:	Cold condition
Q23.	Press used for Coining operations are
Option A:	Drop hammers and Hydraulic press
Option B:	open back inclinable press
Option C:	Fly press
Option D:	Eccentric Press
Q24.	Energy in Press Work = Press Capacity X _____
Option A:	Stock thickness
Option B:	Punch length
Option C:	Punch travel
Option D:	Fmax

Q25.	The selected press stroke should be at least _____ than the minimum stroke necess
Option A:	3 to 5 mm
Option B:	10 to 20 mm
Option C:	20 to 30 mm
Option D:	30 to 40 mm

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l, blank dia

g inserts m

(r) is 0.90

