

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

**University of Mumbai**  
**Online Examination 2020**

Program: BE in Automobile Engineering

Curriculum Scheme: Revised 2016

Examination: Final Year Semester VII

Course Code: AEC702 and Course Name: CAD/CAM/CAE

Time: 1 hour

Max. Marks: 50

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

Q1.	Which of the following is not an analytical entity?
Option A:	Line
Option B:	Circle
Option C:	Hermite
Option D:	Parabola
Q2.	The degree of the B-Spline curve is
Option A:	Dependent on no. of control points
Option B:	Independent of no. of control points
Option C:	Always equal to no. of control points
Option D:	Always one more than the no. of control points
Q3.	Which of the following modelling 3D model representation is also called as building block approach
Option A:	CSG
Option B:	B-rep
Option C:	Feature Based
Option D:	Parametric
Q4.	X coordinate of the point at $u=0.3$ on a Bezier curve having end points $P_0(2,1)$ and $P_3(4,1)$ and other control points as $P_1(5,1)$ and $P_2(3,3)$ is
Option A:	3.566
Option B:	3.694
Option C:	5.458
Option D:	2.812
Q5.	The parameter in the parametric representation of a circle is
Option A:	Radius of the circle
Option B:	X coordinate of the centre
Option C:	Y coordinate of the centre
Option D:	$\theta$

Q6.	For a 2D point (3,1,1) , the new coordinate of the point after reflection about X-axis will be
Option A:	(3,- 1,1)
Option B:	(- 3,1,1)
Option C:	(3,- 1,1)
Option D:	(- 3,- 1,1)
Q7.	In 2D-translation, a point (x, y) can move to the new position (x', y') by using the equation
Option A:	$x' = x + dx$ and $y' = y + dx$
Option B:	$x' = x + dx$ and $y' = y + dy$
Option C:	$x' = x + dy$ and $y' = y + dx$
Option D:	$x' = x - dx$ and $y' = y - dy$
Q8.	If the angle of rotation is positive while performing transformation, then the rotation direction is
Option A:	Clockwise
Option B:	Anticlockwise
Option C:	parallel
Option D:	perpendicular
Q9.	If the point is represented as (4, 6, 2) in 2D, the actual x and y coordinate of the point is
Option A:	4, 6
Option B:	2, 3
Option C:	6, 4
Option D:	3, 2
Q10.	If we have applied scaling by 2 units in both directions and received final coordinates of the polygon, then to recover the original coordinates of the polygon we have to apply scaling transformation with...
Option A:	$S_x = 2, S_y = 2$
Option B:	$S_x = 0.5, S_y = 0.5$
Option C:	$S_x = 0.5, S_y = 2$
Option D:	$S_x = 2, S_y = 0.5$
Q11.	A proper code block for tapping canned cycle is
Option A:	N10 G80 X25 Y25 Z-10 R2
Option B:	N10 G81 X25 Y25 Z-10 R3
Option C:	N10 G83 X25 Y25 Z-10 R4
Option D:	N10 G84 X25 Y25 Z-10 R5
Q12.	The absolute location of point A and B are (30, 20) and (95, 20). The CNC code block to move the tool from point A to B in absolute mode for contouring will be
Option A:	N10 G91 G01 X90 Y20
Option B:	N10 G91 G01 X95 Y0
Option C:	N10 G01 X95
Option D:	N10 G90 G01 X95 Y0

Q13.	M code for Spindle on, Counter Clockwise
Option A:	M01
Option B:	M02
Option C:	M03
Option D:	M04
Q14.	In a point to point type NC system
Option A:	Control of position and velocity is essential
Option B:	Control of only velocity of the tool is sufficient
Option C:	Control of only position of the tool is sufficient
Option D:	Neither velocity nor position needs to be controlled
Q15.	API is used to _____ the application
Option A:	Interface with
Option B:	Install
Option C:	Improve
Option D:	Simulate
Q16.	Select the option which is not related to part programming in turning
Option A:	Diameter mode
Option B:	radius mode
Option C:	z axis movement
Option D:	y axis movement
Q17.	FEA can handle
Option A:	only material nonlinearity
Option B:	only material and contact nonlinearity
Option C:	material, contact and geometric nonlinearity
Option D:	only contact and geometric nonlinearity
Q18.	Shape functions are used to
Option A:	determine the field variable within the element
Option B:	determine the shape of the function
Option C:	determine the field variable at nodes
Option D:	determine the degree of freedom of the element
Q19.	CAE is an element in _____ stage
Option A:	Design
Option B:	Machining
Option C:	Manufacturing
Option D:	Quality
Q20.	Output of the CAD department directly serves as the input to the following department :
Option A:	CAM department
Option B:	Finance department

Option C:	Quality Control department
Option D:	Ware housing management
Q21.	The scope and coverage of CIM as compared to CAD CAM is
Option A:	Smaller
Option B:	Broader
Option C:	Narrow
Option D:	Medium
Q22.	Which one of the following rapid prototyping processes uses a photosensitive liquid polymer as the starting material?
Option A:	Droplet Deposition Manufacturing
Option B:	Stereo lithography
Option C:	Laminated-Object Manufacturing
Option D:	Fused-deposition modeling
Q23.	Which one of the following is not an indirect rapid tooling method
Option A:	Epoxy Tooling
Option B:	3D Keltool
Option C:	Spray metal tooling
Option D:	Metal Deposition
Q24.	Photolithography is also called as
Option A:	Optical Lithography
Option B:	Stereo lithography
Option C:	Multiphoton Lithography
Option D:	Laser Lithography
Q25.	In input file format for RP is
Option A:	.slt
Option B:	.stl
Option C:	.plt
Option D:	.iges