D.Y. PATIL COLLEGE OF ENGINEERING & TECHNOLOGY
KASABA BAWADA KOLHAPUR-416006
(An Autonomous Institute)
S. Y. B. Tech-ETC(Semester-III)
END SEMESTER EXAMINATION, OCT./NOV.- 2021-22
COURSE NAME: **Instrumentation and Control System**   COURSE CODE: **201ETL205**

Q. Paper Code:

22SYET205305

Day and Date: Friday, 28/01/2022
Time: 10.00 am to 11.00 am

Seat No :

Max. Marks- 50

OBJECTIVE

				Correct Option
Q. 1)	Which of the following is the output of a thermocouple?			D
	A) Alternating current	B) Direct current		
	C) A.C. voltage	D) D.C. voltage		
Q. 2)	Electrical strain gauge works on the principle of _____			A
	A) variation of resistance	B) variation of area		
	C) variation of inductance	C) variation of capacitance		
Q.3)	Which type of motion is transmitted by hydraulic actuators?			C
	A) linear motion	B) rotary motion		
	C) both A and B	D) none of these		
Q. 4)	What is the main advantage of using a digital storage oscilloscope?			D
	A) uses disc storage	B) uses mixed mode storage		
	C) uses analog storage	D) uses digital storage		
Q. 5)	Spectrum analyzer works in _____			B
	A) Time domain	A) Time domain		
	C)Space domain	C)Space domain		
Q. 6)	Which of the following instrument measures the amplitude and phase of the signal?			A
	A) Network analyzer	B) Spectrum analyzer		
	C) Oscilloscope	D) Klystron		
Q. 7)	How the overall operation of DSO is controlled?			A
	A) Using microprocessors	B) Using ICs and transistors		
	C) Using discrete components	D) Using diodes and transistors		
Q. 8)	What does VI stand for?			B
	A) Visible Information	B) Virtual Instruments		
	C) Virtual Idea	D) Visible Items		
Q. 9)	Which of the following graphics formats is not be used on a front panel?			A
	A) JPG	B) BMP		
	C) WMF	D) EPS		
Q. 10)	What determines the program order of execution of code in LabVIEW?			A
	A) The data flow	B) The time when you entered the code		
	C) It goes from left to right.	D) All of these		

Q. 11)	Transfer function of a system is defined as the ratio of output to input in		C
	A) Z-transformer	B) Fourier transform	
	C) Laplace transform	D) All of these	
Q.12)	The output signal is fed back at the input side from the _____point		C
	A) Summing	B) Differential	
	C) Take-off	D) All of these	
Q. 13)	In Signal flow graph method, every variable is represented by _____		B
	A) block	B) node	
	C) flow	D) arrow	
Q. 14)	E(s)/R(s) is known as		A
	A) error ratio	B) signal ratio	
	C) close ratio	D) control ratio	
Q. 15)	Mathematical models of most physical system are characterized by _____equations.		B
	A) Linear	B) Differential	
	C) first order	D) second order	
Q. 16)	The frequency and time domain are related through which of the following?		A
	A) Laplace Transform and Fourier Integral	B) Laplace Transform	
	C) Fourier Integral	D) Either B or C	
Q. 17)	In time domain system, which response has its existence even after an extinction of transient response?		C
	A) Step response	B) Impulse response	
	C) Steady state response	D) All of these	
Q. 18)	Standard test signals in control system are:		D
	A) Impulse signal	B) Impulse signal	
	C) Unit step signal	D) All of these	
Q. 19)	Transient response analysis is done for_____ systems.		B
	A) Unstable	B) Stable	
	C) Conditionally stable	D) Marginally stable	
Q. 20)	Gain margin is:		D
	A) It is a factor by which the system gain can be increased to drive it to the verge of instability	B) It is calculated at gain cross over frequency	
	C) It is calculated at phase cross over frequency	D) Both A and C	
Q.21)	Which of the following is the best method for determining the stability and transient response?		A
	A) Root locus	B) Bode plot	
	C)Nyquist plot	D)Nichols	
Q. 22)	Asymptotic stability is concerned with:		B
	A) A system under influence of input	B) A system not under influence of input	
	C) A system under influence of output	D) A system not under influence of output	
Q. 23)	For making an unstable system stable:		B
	A) Gain of the system should be increased	B) Gain of the system should be decreased	
	C) The number of zeroes to the loop transfer function should be increased	D) The number of poles to the loop transfer function should be increased	
Q. 24)	Which of the following techniques is utilized to determine at the actual point at which the root locus crosses the imaginary axis?		C

		A) Nyquist technique	B) Nichol's technique		
		C) Routh-Hurwitz technique	D) Bode technique		
Q. 25)		The necessary condition for the stability of the linear system is that all the coefficients of characteristic equation 1+G(s)H(s) =0, be real and have the :			C
		A) Positive sign	B) Negative sign		
		C) Same sign	D) Both positive and negative		

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