

University of Mumbai
Examination 2020

Program: Electronics and Telecommunication Engineering

Curriculum Scheme: Rev2012

Examination: Third Year Semester VI

Course Code: ETC604

Course Name: Television Engineering

Time: 1 hour

Max. Marks: 50

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

Q1.	A pulse-type waveform (such as television line pulse) is a modification of
Option A:	square wave
Option B:	rectangular wave
Option C:	saw tooth wave
Option D:	sine wave
Q2.	The main purpose of interlacing in television scanning is to
Option A:	reduce flicker
Option B:	brighten the TV picture
Option C:	sharpen picture outline
Option D:	increase channel bandwidth
Q3.	If a TV picture has 525 lines and scanning rate is 30 pictures/second, time for scanning one line is second.
Option A:	30/525
Option B:	525/30
Option C:	1/30 x 525
Option D:	30 x 525
Q4.	The function of a sync separator ma TV set is to separate the signals.
Option A:	video and sound
Option B:	video and line sync
Option C:	line sync and field sync
Option D:	sound and field sync
Q5.	The main function of electron gun in a cathode-ray tube is to ---- electrons.
Option A:	deflect
Option B:	produce
Option C:	size
Option D:	aspect
Q6.	In a CRT, focussing of electron beam is achieved by varying
Option A:	grid bias
Option B:	heater voltage
Option C:	voltage of first accelerating anode
Option D:	secondary accelerating voltage
Q7.	The term wide-band as applied to an oscilloscope denotes the bandwidth of its
Option A:	vertical amplifier

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Option B:	horizontal amplifier
Option C:	both vertical and horizontal amplifiers
Option D:	none of the above
Q8.	An oscilloscope is generally used to measure the value of voltage
Option A:	dc
Option B:	rms ac
Option C:	peak-to-peak ac
Option D:	average value of ac
Q9.	The purpose of a synch oscilloscope is to
Option A:	set the intensity level
Option B:	control brightness
Option C:	set the focus
Option D:	lock the signal
Q10.	The length of the sweep screen is controlled by
Option A:	sync control
Option B:	sweep selector
Option C:	horizontal gain
Option D:	vertical gain
Q11.	A demodulator probe is used to
Option A:	extend the bandwidth of an oscilloscope
Option B:	increase the gain of an oscilloscope
Option C:	prevent distortion of TV station signal
Option D:	de-energise the vertical amplifier
Q12.	White-dot and cross-hatch patterns are commonly called patterns.
Option A:	linearity
Option B:	colour bar
Option C:	convergence
Option D:	background
Q13.	In practice, it is desirable to prevent vertical rolling of chroma bars because of the
Option A:	loss of contrast
Option B:	frequency drift in vertical oscillator
Option C:	snaking action caused by the 50 Hz and 100 Hz hum voltage
Option D:	none of the above
Q14.	Colour bar generators are used mainly to check the operation of the in colour TV receivers.
Option A:	number of chroma bars
Option B:	chroma circuitry
Option C:	video
Option D:	RF
Q15.	A vectorgram is useful because it shows at a glance whether the operation of the

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 is normal.
Option A:	RF amplifier
Option B:	horizontal amplifier
Option C:	chroma demodulator
Option D:	video amplifier
Q16.	In a TV receiver set, sound and video signals are separated at the
Option A:	video detector
Option B:	video amp
Option C:	sync separator
Option D:	IF stage
Q17.	The vertical and horizontal pulses in a TV set are separated at the
Option A:	AFC
Option B:	sync amp
Option C:	sync separator
Option D:	AGC
Q18.	When in a TV receiver set, both sound and picture are weak and distorted, the problem is most likely to be in the
Option A:	AFC
Option B:	FM detector
Option C:	tuner
Option D:	video amp
Q19.	Lack of raster in a TV receiver set often indicates no
Option A:	TV signal
Option B:	video signal
Option C:	AGC
Option D:	high voltage
Q20.	Tropospheric scatter is used with frequencies in the following range :
Option A:	H.F.
Option B:	V.H.F.
Option C:	U.H.F.
Option D:	U.F.
Q21.	In a broadcast superheterodyne receiver, the
Option A:	local oscillator operates below the signal frequency
Option B:	mixer input must be tuned to the signal frequency
Option C:	local oscillator frequency is normally double the IF
Option D:	RF amplifier normally works at 455 kHz about the carrier frequency
Q22.	The number of lines per field in the United States TV system is
Option A:	262 $\frac{1}{2}$
Option B:	525
Option C:	30
Option D:	60

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Q23.	The signals sent by the TV transmitter to ensure correct scanning in the receiver are called
Option A:	sync
Option B:	chroma
Option C:	luminance
Option D:	video
Q24.	In television, 4:3 represents the
Option A:	interlace ratio
Option B:	maximum horizontal deflection
Option C:	aspect ratio
Option D:	ratio of the two diagonals
Q25.	Equalizing pulses in TV are sent during
Option A:	horizontal blanking
Option B:	vertical blanking
Option C:	the serrations
Option D:	the horizontal retrace