Program: BE Electronics Engineering

Curriculum Scheme: Revised 2012

Examination: Third Year Semester VII

Course Code: EXC7054 Course Name: Optical Fiber Communication

Time: 1hour Max. Marks: 50

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

Q1.	The _____ ray passes through the axis of the fiber core.
Option A:	Reflected
Option B:	Refracted
Option C:	Meridional
Option D:	Shew
Q2.	The phenomenon which occurs when an incident wave strikes an interface at an angle greater than the critical angle with respect to the normal to the surface is called as _____
Option A:	Refraction
Option B:	Partial internal reflection
Option C:	Total internal reflection
Option D:	Limiting case of refraction
Q3.	Losses caused by factors such as core-cladding diameter, numerical aperture, relative refractive index differences, different refractive index profiles, fiber faults are known as _____
Option A:	Intrinsic joint losses
Option B:	Extrinsic losses
Option C:	Insertion losses
Option D:	Coupling losses
Q4.	The effects of intrinsic absorption can be minimized by _____
Option A:	Ionization
Option B:	Radiation
Option C:	Suitable choice of core and cladding components
Option D:	Melting
Q5.	What is dispersion in optical fiber communication?
Option A:	Compression of light pulses

Option B:	Broadening of transmitted light pulses along the channel
Option C:	Overlapping of light pulses on compression
Option D:	Absorption of light pulses
Q6.	A perfect semiconductor crystal containing no impurities or lattice defects is called as _____
Option A:	Intrinsic semiconductor
Option B:	Extrinsic semiconductor
Option C:	Excitation
Option D:	Valence electron
Q7.	In semiconductor injection laser, narrow line bandwidth is of the order?
Option A:	4 nm
Option B:	1 nm or less
Option C:	5 nm
Option D:	3 nm
Q8.	The _____ process takes place in both extrinsic and intrinsic semiconductors.
Option A:	Avalanche multiplication
Option B:	External photoemission
Option C:	Internal photoemission
Option D:	Dispersion
Q9.	In photo detectors, energy of incident photons must be _____ band gap energy.
Option A:	Lesser than
Option B:	Greater than
Option C:	Same as
Option D:	Negligible
Q10.	The fraction of incident photons generated by photodiode of electrons generated collected at detector is known as _____
Option A:	Quantum efficiency
Option B:	Absorption coefficient
Option C:	Responsivity
Option D:	Anger recombination
Q11.	In SONET, STS-1 level of electrical signalling has the data rate of _____
Option A:	2488.320 Mbps
Option B:	155.52 Mbps

Option C:	51.84 Mbps
Option D:	622.080 Mbps
Q12.	Adding bits to synchronize one digital signal to another is called:
Option A:	bit stuffing
Option B:	bit-synch
Option C:	SDH
Option D:	WDM
Q13.	Optical MAN'S are usually structured in _____ topologies.
Option A:	Bus
Option B:	Ring
Option C:	Mesh
Option D:	Star
Q14.	How many structures of pre-amplifiers exist?
Option A:	One
Option B:	Two
Option C:	Three
Option D:	Four
Q15.	A regenerative repeater is called as _____
Option A:	Repetitive repeater
Option B:	Regenerator
Option C:	Attenuator
Option D:	Gyrator
Q16.	The total power loss in a point to point link is given as,
Option A:	PT= Pi -Po
Option B:	PT = Po – Pi
Option C:	PT= PR – Ps
Option D:	PT= Ps- PR
Q17.	For measuring the shape of input pulse in time-domain intermodal dispersion method, the tested fiber is replaced by another fiber whose length is less than _____ of the test fiber
Option A:	1%
Option B:	5%
Option C:	10%
Option D:	20%
Q18.	A permanent joint formed between two different optical fibers in the field is

	known as a _____
Option A:	Fiber connector
Option B:	Fiber attenuator
Option C:	Fiber splice
Option D:	Fiber dispersion
Q19.	In surface emitter LEDs, more advantage can be obtained by using _____
Option A:	BH structures
Option B:	QC structures
Option C:	Gain-guided structure
Option D:	DH structures
Q20.	In a multimode fiber, much of light coupled in the fiber from an LED is _____
Option A:	Increased
Option B:	Reduced
Option C:	Lost
Option D:	Unaffected
Q21.	The InGaAsP is emitting LEDs are realized in terms of restricted are _____
Option A:	Length strip geometry
Option B:	Radiance
Option C:	Current spreading
Option D:	Coupled optical power
Q22.	_____ mode is temporary, selective and continuous.
Option A:	Cell switching
Option B:	Buffer switching
Option C:	Cache
Option D:	Circuit switching
Q23.	_____ refers to the process whereby a node finds one or more paths to possible destinations in a network.
Option A:	Routing
Option B:	Framing
Option C:	Lightning
Option D:	Cloning
Q24.	What is needed to predict the performance characteristics of single mode fibers?
Option A:	The intermodal delay effect
Option B:	Geometric distribution of light in a propagating mode
Option C:	Fractional power flow in the cladding of fiber

Option D:	Normalized frequency
Q25.	The finite spectral width of the optical source causes _____
Option A:	Depletion
Option B:	Frequency burst
Option C:	Pulse broadening
Option D:	Efficient reflection