Physics

1.The slit width				a slit, if first mir	nima for red light	is at 300
a)	1×10−6m	b)	5.2×10−6m	c)	1.3×10−6m	d)
2.6×10						
					on a plane glass	
	th of light used is	s 5880A.If the di	ameter of the 15	th bright ring is	0.59cm, the diam	neter of
the 5th ring is						
a)	0.226cm	b)	0.446cm	c)	0.336cm	d)
0.556c						
	intensity after in	iterference of tw	o coherent wave	s represented b	y y1a1cost and y	/2a2cos2t
will be						
a)	a1-a2 b)	a1+a2	c)	a12-a22	d)	
a12+a						
					thickness 3.6×10	
			a position origina	Ily occupied by	30th bright fringe	e. The
	of the sheet, if					
a)	1.5 b)	1.2	c)	1.3 d)	1.7	
				wave length 600	Onm, the distance	e between
	For changing frii			330		
a)			n the slits by 5cm		the screen is r	noved by
5cm towards th	,		reen is moved by	/ 3cm towards tl	he slits d)	
) and (b) are cor					
					erimposed, what	are the
			the resulting bea			
a)	5I and I b)	5I and	3l c)	9I and	d I d)	9I and
31						
					ed, then 84 fring	
				length is used, t	hen 62 fringes a	e seen in
	v, the wave length					
a)	6893Å b)	5904Å	,	5523Å d)	6429Å	
					a certain point P	on the
			of second maxi			
a)	5.1 mm b)	5 mm	c)	40 mm d)	5.2 m	m
	uble slit experim					
a)		will decreases	b)		th will increase	c)
	ge width will ren		d)	there will be n		
				, for a light of wa	ave length 5000Å	. If the
	is 1×10-4cm, th					
a)	300 b)	450	c)	600 d)	150	
		t light beam of ii	ntensities I and 4	I. The maximun	n and minimum ii	ntensities
in the resulting						
a)	9I and 3I	b)	9I and 5I	c)	5I and I d)	
5I and						
					he same time t0,	light
			The refractive in			
a)	4/3 b)	3/2	c)	8/3 d)		of these
					en them is 2.1 m	
	e between the wa	ave fronts at tha	t point is 7.692 т	т. Wave length o	of light emitted by	/ source
will be	0	0				
a)	5386Å b)	5400Å	. c)	5460Å d)	5892Å	١
	air bubble in wat		_			
a) .	convex lens	b)	concave lens	c)	glass plate	d)
plano d	anical lane					
	convex lens		gnifier if the obje			

a)		beyond		b)		within th	ne focal	length	c)		betwee	n f and
2f	d)		at 2f									
			sm the a	angle of	minimun	n deviati	on is 30	ე. Then i	the refra	ctive ind	ex of the	е
materia	I of the p	orism is										
a)		1/2	b)		2	c)		2	d)		22	
17.Lum	inous flu	ıx is expı	ressed ir	n								
a)		Lumen	b)		Candel	a	c)		Weber	d)		Lue
18.Ligh	t travels	through	a glass	plate of	thicknes	s d. If n	is the re	fractive i	index of	glass an	d c is th	e
velocity	of light	in vacuu	m, the ti	me take	n by ligh	t to trave	el throug	h the gla	ass plate	is		
a)		n/cd	b)		nc/d	c)		nd/c	d)		ndc	
19.Wha	it is the r	magnifica	ation wh	en an ol	oject is p	laced at	2f of a d	convex n	nirror			
a)		1/3	b)		2/3	c)		1	d)		3/2	
20.A tai	nk is fille	d with w	ater upt	o a heigl	ht of 12.	5 cm. Th	e appar	ent dept	h of a ne	edle at t	he botto	m of the
tank is ((n of wat	ter = 1.33	5)	_				-				
a)		12.5 cm	ıb)		9.4 cm	c)		16.6 cm	ıd)		11.17 c	m
21.A ma	an unde	r water ir	ı a lake	is viewir	ng a boy	standing	g on the	bank of	the lake.	Then fo	r him th	e boy
appears	s to be											-
a)		shorter	b)		taller	c)		of the s	ame size)	d)	
	16 cm											
22.A co	nvex mi	rror plac	ed at a d	distance	of 20 cn	n from a	candle f	orms a	virtual im	age at th	ne same	position
as that	formed b	oy a plan	e mirror	at a dis	tance of	12 cm fi	rom the	candle. \	What is t	he focal	length of	of the
convex	mirror?							O				
a)		20 cm			15 cm			10 cm			5 cm	
23.Whe	n light tr	ravels fro	m 1 me	dium to	another	that rem	ains una	altered is	;			
a)		speed	b)		wave le	ngth	c)		frequen	су	d)	
	intensity	,										
		f a teles	cope is 1	100 cm a	and mag	nification	n is 19. T	The foca	I length o	of the ob	jective a	and eye
piece a	re											
a)		90 cm a	and 10 c		b)		85 cm a	and 1 cm	ıc)		95 cm a	and 25
a) cm	d)		None of	f the abo	ové	~>>			,			and 25
a) cm 25.In a	compou	nd micro	None of scope the	f the abo	ové t produc		gnificatio	on 10 an	d eyepie	ce produ		and 25
a) cm 25.In a	compou	nd micro	None of oscope the erall mag	f the abo	ové t produc		gnificatio	on 10 an	id eyepie croscope	ece produ e is	uces a	and 25
a) cm 25.In a magnific a)	compou cation 5	nd micro . The ove 2	None of oscope the scope t	f the abo he objec gnificatio	ové t produc		gnificatio	on 10 an	d eyepie	ece produ e is		and 25
a) cm 25.In a magnifica) 26.The	compou cation 5	nd micro The ove 2 If the sky	None of oscope the erall mag b) is due to	f the abo he object gnification	ové et produc on produ 5	ced by th	gnification ne comp	on 10 an ound mi 2	d eyepie croscope d)	ece produ e is	uces a	and 25
a) cm 25.In a magnific a)	compou cation 5. colour o	nd micro The ove 2 of the sky scatterin	None of secope the secope the secope the second the sec	f the aborned the object of th	ové t produc	ced by th	gnificatione comp	on 10 an ound mi 2 on of ligh	d eyepie croscope d)	ece produ e is	uces a	and 25
a) cm 25.In a magnific a) 26.The a)	compou cation 5. colour o interfere	nd micro The ove 2 of the sky scattering	None of oscope the rall mag b) is due the right	f the aborned the object of th	ove or production production 5	ced by th	gnification e comp refraction on of ligh	on 10 an ound mi 2 on of ligh	d eyepie icroscope d)	ece produ e is c)	uces a 50	and 25
a) cm 25.In a magnifica) 26.The a) 27.An o	compou cation 5. colour o interfere	nd micro The ove 2 of the sky scattering ence of li	None of oscope the erall mag b) is due to high to a dista	f the about the object of the	ove ot production production of b) from a co	ced by th	gnification gne comp refraction on of light	on 10 an ound mi 2 on of ligh t al length	nd eyepie icroscope d) nt	ece produ e is c) mage wil	uces a 50	
cm 25.In a magnifica) 26.The a) 27.An ca)	compou cation 5. colour o interfere bject is	nd micro The ove 2 If the sky scatterinence of li placed a 3f/2, rea	None of pscope the psc	f the about the object of the	bye ove t product on produ 5 b) from a cc b)	ced by the c) reflection reconvex lere	gnification gne comp refraction on of light	on 10 an ound mi 2 on of ligh it al length	nd eyepie croscope d) nt n f. The ir virtual, d	ece produ e is c) mage will ouble the	uces a 50	
cm 25.In a magnifica) 26.The a) 27.An o a) object	compou cation 5. colour o interfere bject is	nd micro The ove 2 If the sky scattering ence of li placed a 3f/2, rea	None of oscope the rall mag b) is due to the right and in f/2, real	f the about the object of the	ove t product on product 5 b) rom a cc b) erted	ced by the convex lends	gnification refraction on of light as of foctione of t	on 10 an ound mi 2 on of ligh al length he foci, f, virtua	nd eyepie icroscope d) nt n f. The ir virtual, d I and ere	ece produce is c) mage will ouble the	uces a 50 Il be at e size o	f the
a) cm 25.In a magnific a) 26.The a) 27.An o a) object 28.Two	compou cation 5 colour o interfere bject is c) thin cor	nd micro The ove 2 If the sky scattering ence of li placed a 3f/2, rea	None of oscope the rall mag b) is due to the right and in f/2, real	f the about the object of the	ove t product on product 5 b) rom a cc b) erted	ced by the convex lends	gnification refraction on of light as of foctione of t	on 10 an ound mi 2 on of ligh al length he foci, f, virtua	nd eyepie icroscope d) nt n f. The ir virtual, d I and ere	ece produce is c) mage will ouble the	uces a 50 Il be at e size o	
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34.A concave lens has focal length f. A real object pl produces an image	aced at a distance f in front of the lens from the pole
a) at infinity b) at f	c) at f/2 d) at 2/f
35. The image formed by a plane mirror is	
a) real and same size as the objectb)	virtual, same size as the object c)
real and magnified d) non	e of these
36. The limit of resolution of the eye is one minute at	
lateral separation of 3cms. To see the two persons ju	
a) 20km b) 15km c)	10km d) 30km
37. In the displacement method of measuring the foca	
the two positions of the lens between the object and	
of the object is	and dondern to dorn and rem respectively. The length
a) 6.25 cmb) 1.5 cm c)	6 cm d) 36 cm
38. The refracting angle of a prism is A and the refraction	
angle of minimum deviation is	tive index of the material of the phonic of 702, the
	90-A d) 180-2A
a) 180-A b) 180-3A c) 39.A ray of light travels from vacuum into a medium	
to be twice the angle of refraction. The angle of incid	
,	s-1n/2 c) 2sin-1nd)
2sin-1n/2	
40.An object placed at distance 'a' from the focus of	a convex lens forms its real image at a distance b
from the focus. The focal length of the mirror is	
a) ab b) ab c)	a+b2 d) ab
41. The distance between a point source of light and	a screen is doubled. The intensity of light on the
screen will be	. (7)
a) Four times the original value b)	half of the original value c)
two times the original value d)	one quarter the original value.
42. From the following which one is used for studying	
a) prism of crown glass b)	prism of flint glass c) prism of
quartz d) prism with combination of fli	nt and crown glass
43. Electromagnetic waves are	
a) longitudinal waves b)	transverse waves c) neither
longitudinal nor transverse d) stat	ionary waves
44. If there are no atmosphere the average temperature	re on the surface of the earth would be
a) lower b) higher c)	same as now d) 00C
45.displacement current was first produced by	
a) Ampereb) Henry c)	Maxwell d) base
46. Pick out the odd one which has extremely short w	ave length much shorter than that of visible light and
can be emitted from the nucleus of an atom.	· ·
	a radiation c) γ radiation d)
infra red radiation	, , , , , , , , , , , , , , , , , , , ,
47. The TV transmission tower in Delhi has a height of	of 240m. The distance upto when the broadcast can
be received [taking radius of earth to be 6.4×106m]	A 2 form the dictarios apto when the broadcast can
a) 100 km b) 60 km c)	55 km d) 50 km
48.All the members of electro magnetic spectrum ha	
	ocity c) wave length d)
wave number	wave length d
49.Infra red spectrum lies between a) radio and micro wave region b)	visible and UV region c)
,	· · · · · · · · · · · · · · · · · · ·
micro wave and visible region d)	UV and X-ray region
50.Choose the waves relevant to telecommunication	
,	ole c) infra red d)
micro waves	