KENDRIYA VIDYALAYA SANGATHAN VARANASI		
REGION SESSION ENDING EXAMINATION 2016-2017		
CLASS -XII (1st Pre paper)		
SUBJECT-PHYSICS		
Marking Scheme		
1	Radio waves> Infrared light >Blue light >X-Rays	1
2	Denser to rarer medium angle of incidence denser medium is grater	½ ½
3	X=12.3/√V A	1
4	Becquerel	1
5	Large Varian of current voltage across zenes diode does not charge	1
6	Imax $\alpha (a + b)^2$ Imax $\alpha(a-b)^2$ OR Apparent height more than real height	1 1 2
7	Putting $K_E=P_E$ $½mv^2=Kq^2/ro$ $ro=2Kq^2/mv^2$ on putting $ro=5X10^{-13}m$	1 1
8	High frequency to be modulated , information large signal to cover large distance use-different frequency for bord casting	1 1
9	Electric and magnetic field oscillate on light ray and UV ray	1 1
10	B=MoNl ,n=N/l n= no. of town per unit area $Q=NBA=(nl)A=Mon^2lAl$ $Q=LI$, $L=Mon^2lA$	 1 1
11	Trans forms fig. with $E_P= -N_P$ dd/dt and $V_P= -Np$ dd/dt Mutual induction emf is Es= -Ns dd/dt Es=Vs , Vs/Vp=Ns/Np Ns/Np>1	1 1 1
12	Interference and diffractiondifference (3)	1+1+1
13	V=20cm fig. U1= -30 applying 1/f=1/v+1/u =V= -15cm	1+1 1
14	$R/S= l_1/100l_1$ $l_1/100-l_1(X+S/X)=l_2/100-l_2$ $X=l_1/100(100-l_2/l_1-l_2)S$	
15	Decay constant definition 1/T½ No of atoms N=No(½) A(average value=0.693No/T½(½) T/T½ $A/A^1=3/16$	
16	define with area conductor,semi conductor, Insulator with fig. (a)resistivity $P=m/ne^2$	

<table>
<tr><td></td><td>(b)increasing temperature, relaxation time decrease
Increasing No density , decreasing resistivity</td><td></td></tr>
<tr><td>17</td><td>Antenna transmits and receives diagram
d= √2Rh
$d \propto \sqrt{h}$</td><td></td></tr>
<tr><td>18</td><td>Impedance $Z=\sqrt{R^2+(X_C-X_L)^2}$

$X_L= 2\pi\nu L$

$X_C= 1/2\pi\nu C$
$X_C = X_L$ & Z= R</td><td></td></tr>
<tr><td>19</td><td>(a) The input and output wave front as in a NOT GATE

(b)
<table><tr><td>A</td><td>B</td><td>$\bar{A}.\bar{B} = Y$</td><td>Y+B=X</td></tr><tr><td>0</td><td>1</td><td>1</td><td>1</td></tr><tr><td>1</td><td>1</td><td>0</td><td>1</td></tr></table></td><td></td></tr>
<tr><td>20</td><td>(i) Reducing area of normagnetic field direction.
(ii) (a) R is independent frequency
(b) frequency increased X_L= increase (XL= $2\pi\gamma$L)
Current density</td><td>½
½ + ½
½
½ +½</td></tr>
<tr><td>21</td><td>(i) E=nγ=hc/λ
E=3 V
(ii) hc/λ= Wo + Emox
Emox=hc/λ-Wo
Emox=1.1ev</td><td>½
1
½
½
½</td></tr>
<tr><td>22</td><td>(a) concern for other, understanding the concept and ability to apply in our daily life
(b) no change inside the metallic cavity electric field is zero, whole charge on outer surface</td><td>2
2</td></tr>
<tr><td>23</td><td>Fig. + $AB/A^1B^1= CF_1/CF^1CB^1$
Proved formula F=1/V+1/U
(a) P=SD (b) f=1/P=20 cm and M= f/U + f u= -10 cm
OR
(a) (a) fig + (b) angular magnification of the telescope = fo/fe^1 m=1500
(b) D and angle suborde n/R=$3.48*10^{-6}$
d= 0.1373 cm</td><td>1
½
1
½ +½
1½
1</td></tr>
<tr><td></td><td>(a) Electronic potential amount of work done m moving a unit +ve charge
(i) For anial (ii) for equational potential iX zero</td><td>1
1</td></tr>
</table>

24	(b) V= od / ε_o + c= ε_oA/d + c^1=ε_oA/d-t OR Electric field intensity $\bar{E}=\bar{F}/q_o$ Si unit NC^{-1} EpA=Kq/$(r-l)^2\uparrow$ + Ean=Kq $\{r^2+l^2p-l^2-r+^2lr/(r^2-l^2)^2\}$ = 2k (2ql)r/$(r^2-l^2)^2$ Eax=2k→pr/$(r^2-l^2)^2$ = 2k→rp/$(r^2-l^2)^2$	1+1+1 1 1 1+1 1
25	dB→ = Mo/4π idl/(r^2+n^2) B= dB sinθ = sin θ= r/s=r/$\sqrt{r^2+n^2}$ B= OR (a) Electronic field accelerated the change where field put thecharge particles again and again Brv=mv^2/r r= mv/Bq (b) Electronic decreasing sprit path of continuously increasing radius V=Be/2πme putting value V= $0.224*10^8$	1 ½ 1½ ½ ½ 1 1 ½