Geometricl Optics

Sr	Questions	Answers Choice
1	The refractive index of air is:	A. 6 B. 7 C. 2 D. 1,0003
2	Power of lens is:	A. q/p B. 1/q C. 1/p D. 1/f
3	A device which has two ways communication is:	A. Television<o:p></o:p> B. Radio<o:p></o:p> C. Hard disk<o:p></o:p> D. Mobile phone<o:p></o:p>
4	Focal length for concave mirror is :	A. -ve B. +ve C. same D. none of these
5	To see from submarine the ship at the surface of water , we use:	A. Telescope B. Microscope C. Peri scope D. Prism
6	Which types of image is produced by the converging lens of human eye if it view a distant object?	A. Real , erect, same size B. Real, inverted, diminshed C. Virtual, erect,diminshed D. Virtual, inverted, magnified
7	The mirror whose outer surface is reflecting is called:	A. Concave mirror B. Convex mirror C. Lens D. Mirror
8	How does sound travel from its source to your ear:	A. By changes in air pressure<o:p></o:p> B. By vibration in wires or strings<o:p></o:p> C. By electromagnetic waves<o:p></o:p> D. By infrared waves<o:p></o:p>
9	To see stomach problems we use:	A. Gastroscope B. Bronchoscope C. Cystoscope D. All of these
10	Which types of image is formed by a concave lens on a screen?	A. Inverted and real B. Inverted and virtual C. upright and real D. Upright and virtual
11	Optical fibre are:	A. Cheap B. Flexible C. Lighter D. All of these
12	Totally reflecting prism is used in:	A. periscope B. binoculars C. periscope and binocular D. telescope
13	The ray of light striking to the side of prism is called:	A. refraction ray B. incident ray C. reflected ray D. emergent ray

14	The mirror whose inner surface is reflecting is called:	A. Concave mirror B. Convex mirror C. Miroor D. Lens
15	An example of input device computer is:	A. Keyboard<o:p></o:p> B. printer<o:p></o:p> C. monitor<o:p></o:p> D. RAM<o:p></o:p>
16	Which form of energy is sound:	A. <span style="font-size:11.0pt;line-height:107%; font-family:"Calibri",sans-serif;mso-ascii-theme-font:minor-latin;mso-fareast-font-family: Calibri;mso-fareast-theme-font:minor-latin;mso-hansi-theme-font:minor-latin; mso-bidi-font-family:Arial;mso-bidi-theme-font:minor-bidi;mso-ansi-language: EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">Electrical B. <span style="font-size:11.0pt;line-height:107%; font-family:"Calibri",sans-serif;mso-ascii-theme-font:minor-latin;mso-fareast-font-family: Calibri;mso-fareast-theme-font:minor-latin;mso-hansi-theme-font:minor-latin; mso-bidi-font-family:Arial;mso-bidi-theme-font:minor-bidi;mso-ansi-language: EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">mechanical C. <span style="font-size:11.0pt;line-height:107%; font-family:"Calibri",sans-serif;mso-ascii-theme-font:minor-latin;mso-fareast-font-family: Calibri;mso-fareast-theme-font:minor-latin;mso-hansi-theme-font:minor-latin; mso-bidi-font-family:Arial;mso-bidi-theme-font:minor-bidi;mso-ansi-language: EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">Thermal D. <span style="font-size:11.0pt;line-height:107%; font-family:"Calibri",sans-serif;mso-ascii-theme-font:minor-latin;mso-fareast-font-family: Calibri;mso-fareast-theme-font:minor-latin;mso-hansi-theme-font:minor-latin; mso-bidi-font-family:Arial;mso-bidi-theme-font:minor-bidi;mso-ansi-language: EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">Chemical
17	The angle of which prism deviates the incident ray is called:	A. angle of incident B. angle of reflection C. angle of deviation D. angle of minimum deviation
18	Totally reflecting prism turns the incident ray at an angle of:	A. 90^o B. 60^o C. 75^o D. 45^o
19	Half of radius of curvature is called:	A. Focal length B. Principal focus C. Axis D. None of these
20	The critical angle for a beam of light passing from water into air is 48.8 degrees. This mean that all light rays with an angle of incidence greater than this angle will be:	A. Absorbed B. Totallly reflected C. Partially reflected and partially transmitted D. Totally transmitted
21	An object is 14 cm is front of a convex mirror. The image is 5.8 cm behind the mirror. What is the focal length of the mirror?	A. 4.1 cm B. 8.2 cm C. 9.9 cm D. 20 cm

		D. 20 cm
22	Snell' law is:	A. n = sin<x/sin <r B. n=sin <i/sin<r C. n = sin <r/sin<i D. <i/<r
23	After refraction from a convex lens, rays of light parallel to the principal axis converge at a point, this point of convex lens is called:	A. Principal focus B. Pole C. Focal length D. Optical center
24	Sun light consist of _____ colour	A. 6 B. 7 C. 5 D. 2
25	Which of the following is not processing:	A. Arranging<o:p></o:p> B. Manipulating<o:p></o:p> C. Calculating<o:p></o:p> D. Gathering<o:p></o:p>
26	The index of refraction depends on:	A. The focal length B. The speed of light C. the image distance D. The object distance
27	Hard disk is made of:	A. Aluminium<o:p></o:p> B. Copper<o:p></o:p> C. Iron<o:p></o:p> D. Plastic<o:p></o:p>
28	The S.I unit of power of a lens is:	A. Dioptre B. Volt C. Ampere D. Watt
29	CD which is made of soft material is called:	A. Hard disk<o:p></o:p> B. Floppy disk<o:p></o:p> C. Iron disk<o:p></o:p> D. Copper disk<o:p></o:p>
30	The minimum value of angle of deviation is called:	A. Minimum angle B. incident angle C. angle of minimum deviation D. None of these
31	From which of the following we can get information almost about everything:	A. Book<o:p></o:p> B. Teacher<o:p></o:p> C. Computer<o:p></o:p> D. Internet<o:p></o:p>
32	Magnification of mirror is given by:	A. m=p/q B. m=q/p C. m=pxq D. m=1/p+q
33	A data storage device is:	A. Printer<o:p></o:p> B. Hard disk<o:p></o:p> C. Monitor<o:p></o:p> D. CPU<o:p>

		B. SPS<o:p></o:p>
34	For a normal person audible frequency range for sound wave lies between:	A. 10 Hz and 10kHz<o:p></o:p> B. 20Hz and 20 kHz<o:p></o:p> C. 25 Hz and 25 kHz<o:p></o:p> D. 30Hz and 30 kHz<o:p></o:p>
35	Spherical mirrors are used in:	A. Medical B. Search light C. Microscope D. All of these
36	The line which passes through pole of the mirror and center of curvature is called principal:	A. axis B. Focus C. Line D. None of these
37	Which is an example of a longitudinal wave:	A. Sound wave<o:p></o:p> B. Light wave<o:p></o:p> C. Radio wave<o:p></o:p> D. Water wave<o:p></o:p>
38	When a ray of light enters from denser medium to rare medium, the angle of incidence for which angle of refraction is 90^{o} is called:	A. angle of incidence B. critical angle C. angle of refrection D. None of these
39	Mathematical relationship between critical angle "C" and refractive index "n" is:	A. N = C B. N = 1 / sin c C. N = 1 / cos c D. N = 1 / sin2 c
40	Astronauts in space need to communicate with each other by radio links because:	A. Sound waves travel very slowly in space<o:p></o:p> B. Sound waves travel very fast in space<o:p></o:p> C. Sound waves cannot travel in space<o:p></o:p> D. Sound waves have low frequency in space<o:p></o:p>
41	The distance of image from mirror is represented by:	A. q B. p C. F D. m
42	Angle opposite to the base of triangle of prism is called:	A. angle of incidence B. angle of refraction C. angle of prism D. emerging angle
43	Snell's law is stated as:	A. Sin i / sin r = n1/n2 B. sin i / sin r = n2/n1 C. sin r / sin i = n2/n1 D. sin r / sin i = 2n2/n1
44	An object of placed at he centre of curvature of a concave mirror. The image produced by the mirror is located:	A. out beyond the centre of curvature. B. at the centre of curvature C. between the centre of curvature and the focal point D. at the focal point
45	The loudness of a sound is most closely related to its:	A. Frequency<o:p></o:p> B. Period<o:p></o:p> C. Wavelength<o:p></o:p> D. Amplitude<o:p></o:p>
46	Concave mirror formula is given by:	A. R = 2r B. sin<i/sin<r C. 1/f=1/p+1/q

		C. 1/f=1/p+1/q D. 1/f=1/p-1/q
47	The distance of spherical mirror is called:	A. Curvature B. Aperture C. Sphere D. a,b
48	An object is placed 6 cm away in front of a concave mirror that has 10 cm focal length. Determine the location of the image:	A. -5 cm B. -10 cm C. -15 cm D. -20 cm
49	Power of convex lens is 10 D. Its focal length is:	A. 100 m B. 10 m C. 1 m D. 0.1 m
50	Optical fibers work on the principle of:	A. Refraction B. Reflection C. Total internal reflection D. Diffraction
51	The data stored in C.D is:	A. 680 MB<o:p></o:p> B. 650 MB<o:p></o:p> C. 700 MB<o:p></o:p> D. 750 MB<o:p></o:p>
52	The principal focus of a concave mirror is:	A. Virtual B. Real C. Imaginary D. Dual aspect
53	The ratio of image height to object height is called:	A. Linear magnification B. Power C. Refraction D. Radius of curative
54	The ray of the light after reflection from concave mirror passes through:	A. Centre B. Principal focus C. Pole D. None of these
55	A converging mirror with a radius of 20 cm creates a real image 30 cm from the mirror. What is the object distance?	A. 5.0 cm B. 7.5 cm C. 15 cm D. 20 cm
56	The focal length is related to radius of curvature by the formula:	A. f = 2R B. f = 4R C. f = R/2 D. R = f/2
57	The distance of the object from the mirror is represented by :	A. q B. p C. m D. F
58	The point through which rays of light pass after reflection from concave mirror is called principal:	A. Focus B. Circle C. Axis D. Radius
59	Speed of light in air is ms^{-1}	A. 3 x 10⁸ B. 3 x 10¹¹ C. 3 x 10⁵ D. 340
60	Which of the following quantities is not change during refraction of light?	A. Its direction B. Its speed C. its frequency D. Its wavelength
61	In totally reflecting prism one angle is of 90^{o}, and other two angles are of:	A. 30^o,30^o B. 45^o,90^o C. 45^o,45^o D. 40^o,40^o
62	_____ is always virtual in case of convex mirror.	A. p B. image C. object D. all of these
63	The totally reflectiing prism one angle is of:	A. 45^o B. 90^o

	The totally reflecting prism one angle is of	C. 180^o D. 120^o
64	The centre of spherical mirror is called:	A. Focus B. Axis C. Centre D. Pole
65	When light passes through a prism it deviates from its original path due to:	A. Reflection B. Diffraction C. Interference D. Refraction
66	When the object is placed beyond 2F of a convex lens, the image formed will be:	A. Real, inverted and smaller than the object B. Real, inverted and of the same size as the object C. Real, inverted and larger in size than the object D. Virtual, erect and larger in size than the object
67	The critical angle for glass to:	A. 24^o B. 48^o C. 42^o D. 50^o
68	The refractive index of internal coating of optical fibre is:	A. 1.56 B. 1.51 C. 1.53 D. 1.58
69	A normal eye can see near objects clearly at a distance of:	A. 20 cm B. 25 cm C. 30 cm D. 35 cm
70	What does the term e-mail stand for:	A. Emergency mail<o:p></o:p> B. Electronic mail C. Extra mail<o:p></o:p> D. External mail<o:p></o:p>
71	The distance between two consecutive waves compressions or rarefactions is called:	A. Focal length<o:p></o:p> B. Wave length<o:p></o:p> C. Frequency<o:p></o:p> D. Time period<o:p></o:p>
72	If focal length of a lens is 1m, then its power will be:	A. 1 D B. 0.5 D C. 1.5 D D. 1 D
73	Critical angle for diamond is:	A. 60^o B. 24^o C. 26^o D. 49^o
74	Bouncing back of light after striking the surface is called:	A. Refraction B. Reflection C. Diffraction D. Interference
75	Image formed on a camera is:	A. real,invertred, and diminished B. virtual, upright and diminshed C. virtual, upright and magnified D. real, inverted and magnified
76	In a convex mirror the size of the image:	A. Is smaller than the size of the object B. Is greater than the size of the object C. Depends upon the position of the object D. Is equal to the size of the object
77	The distance between principal focus and pole of mirror is called:	A. Princpal focus B. Focal length C. P D. Image
78	If a ray of light is glass is incident on an air surface at an angle greater than the critical	A. refract only B. reflect only

angle, the ray will.

C. partially refract and partially reflect
D. Diffract only