

Mantra to get the best outcome.....



Class 10 <sup>th</sup> CBSE							
MA	IRKS : 80	PHYSICS		TIME : 3 :00 HR.			
MULTIPLE CHOICE QUESTIONS [1×20=20]							
1.	Focal length of plane mirror is						
	(A) At infinity		(B) Zero				
	(C) Negative		(D) None of th	ese			
2.	Image formed by p	e formed by plane mirror is					
	(A) Real and erect		(B) Real and in	verted			
	(C) Virtual and erect		(D) Virtual and	) Virtual and inverted			
3.	concave mirror gives real, inverted and same size image if the object is						
	placed						
	(A) At F	(B) At infinity	(C) At C	(D) Beyond C			
4.	The radius of curva	e radius of curvature of a mirror is 20 cm the focal length is					
	(A) 20 cm	(B) 10 cm	(C) 40 cm	(D) 5 cm			
5.	The angle of reflection is equal to the angle of incidence:						
	(A) always		(B) sometimes				
	(C) under special conditions		(D) never				
6.	6. The angle between an incident ray and the plane mirror is 30°.						
	angle between the	incident ray and refl	ected ray will be	2:			
	(A) 30°	(B) 60°	(C) 90°	(D) 120°			
7.	A ray of light is inci	gle of 90° with the					
	mirror surface. The angle of reflection for this ray of light will be:						
	(A) 45°	(B) 90°	(C) 0°	(D) 60°			

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8. The image of an object formed by a plane mirror is:

- (A) virtual (B) real (C) diminished (D) upside-down
- 9. The image formed by a plane mirror is:
  - (A) virtual, behind the mirror and enlarged.
  - (B) virtual, behind the mirror and of the same size as the object.
  - (C) real, at the surface of the mirror and enlarged.
  - (D) real, behind the mirror and of the same size as the object.
- 10. The mirror formula is

(A) 
$$\frac{1}{v} - \frac{1}{u} = \frac{1}{f}$$
 (B)  $\frac{1}{v} \times \frac{1}{u} = \frac{1}{f}$  (C)  $\frac{1}{v} + \frac{1}{u} = \frac{1}{f}$  (D)  $\frac{1}{v} \neq \frac{1}{u} \neq \frac{1}{f}$ 

11. In a convex spherical mirror, reflection of light takes place at:

	(A) a flat surface	(B) a bent-in surface
	(C) a bulging-out surface	(D) an uneven surface
12.	A diverging mirror is:	
	(A) a plane mirror	(B) a convex mirror

- (C) a concave mirror (D) a shaving mirror
- 13. If R is the radius of curvature of a spherical mirror and f is its focal length, then:
  - (A) R = f (B) R = 2f (C) R = f/2 (D) R = 3f
- 14. The focal length of a spherical mirror of radius of curvature 30 cm is:
  - (A) 10 cm (B) 15 cm (C) 20 cm (D) 30 cm

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15.	15. If the focal length of a spherical mirror is 12.5 less cm, its radius of							
	curvature will be:							
	(A)	25 cm	(B) 15 cm	(C) 20 cm	(D) 35 cm			
16.	16. The other name of potential difference is:							
	(A)	ampereage		(B) wattage				
	(C)	voltage		(D) potential e	nergy			
17.	7. Which statements/statements is /are correct?							
	1. An ammeter is connected in series in a circuit and a voltmeter is							
	connected in parallel.							
	2. An ammeter has a high resistance.							
	3. A voltmeter has a low resistance.							
	(A)	1, 2, 3	(B) 1, 2	(C) 2, 3	(D) 1			
18.	3. Which unit could be used to measure current?							
	(A)	Watt	(B) Coulomb	(C) Volt	(D) Ampere			
19.	. If the current through a floodlamp is 5 A, what charge passes in 10							
	seconds?							
	(A)	0.5 C	(B) 2 C	(C) 5 C	(D) 50 C			
20.	0. If the amount of electric charge passing through a conductor in 1							
	minutes is 300°C, the current flowing is							
	(A)	30 A	(B) 0.3A	(C) 0.5A	(D) 5A			

## **VERY SHORT ANSWER QUESTIONS**

- 21. What happens when a ray of light falls normally (or perpendicularly) on the surface of a plane mirror?
- 22. A ray of light is incident on a plane mirror at an angle of 30°. What is the angle of reflection?
- 23. A ray of light strikes a plane mirror at an angle of 40° to the mirror surface. What will be the angle of reflection?
- 24. A ray of light is incident normally on a plane mirror. What will be the:
  - (A) angle of incidence? (B) angle of reflection?
- 25. What type of image is formed?
  - (A) in a plane mirror? (B) on a cinema screen?
- 26. Define reflection of light?
- 27. What is a normal?
- 28. Explain the term focal length of a mirror.
- 29. What is the difference between a real image and a virtual image.
- 30. What is a spherical mirror?

## SHORT ANSWER QUESTIONS

- 31. Name the two types of spherical mirrors. What type of mirror is represented by the:
  - (A) back side of a shining steel spoon?
  - (B) front side of a shining steel spoon?
- 32. What is the relation between the focal length and radius of curvature of a spherical mirror (concave mirror or convex mirror)? Calculate the focal length of a spherical mirror whose radius of curvature is 25 cm.
- 33. Explain with a suitable diagram, how a concave mirror converges a parallel beam of light rays. Mark clearly the pole, focus and centre of curvature of concave mirror in this diagram.
- 34. Describe with a suitable diagram, how a convex mirror diverges a parallel beam of light rays. Mark clearly the pole, focus and centre of curvature of convex mirror in this diagram.
- 35. Compare how an ammeter and a voltmeter are connected in circuit.
- 36. What do the following symbols mean in circuit diagrams?



- 37. If 20 C of charge pass a point in a circuit in 1 s, what current is flowing?
- 38. A current of 4A flows around a circuit for 10 s. How much charge flows past a point in the circuit in this time?
- 39. What is the current in a circuit if the charge passing each point is 20 C in 40 s?
- 40. Fill in the following blanks with suitable words:

(A) A current is a flow of ..... For this to happen there must be a ...... circuit.

(B) Current is measured in ..... using an ..... placed in ...... In a circuit.

## LONG ANSWER QUESTIONS

## [2×5=10]

- 41. Write any five features of a plane mirror.
- 42. With a neat labelled diagram of concave and a convex mirror explain the differences between them?



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