Assignment 0

The due date for submitting this assignment has passed. Due on 2019-02-04, 23:59 IST. As per our records you have not submitted this assignment.

1) The sum of numbers 436.32, 227.2 and 0.301 in appropriate significant figure is 1 point
   (a) 663.821
   (b) 664
   (c) 663.8
   (d) 663.82

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b)

2) The length and breadth of a rectangular sheet are 16.2 cm and 10.1 cm respectively. The area of the sheet in appropriate significant figure is 1 point
   (a) 164 cm$^2$
   (b) 163.62 cm$^2$
   (c) 163.6 cm$^2$
   (d) None of those

No, the answer is incorrect.
Score: 0
The power factor in a LCR circuit at resonance is

(a) 0
(b) 0.5
(c) 0.8
(d) 1

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d)

4) Let $M$ and $R$ are the mass and radius of flywheel, what happens to its moment of inertia when mass is doubled and radius is reduced to half

(a) Increases
(b) Decreases
(c) Becomes double
(d) Becomes half

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d)

5) Within the limit of elasticity, strain produced is directly proportional to stress applied, by

(a) Pascal's law
(b) Hook's law
(c) Planck's law
(d) Newton's law

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b)
6) Nearest approach to a perfectly plastic material

(a) Putty
(b) Quartz
(c) PVC
(d) Polystyrene

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)

7) The young’s modulus of the material in gaseous state is always

(a) 1
(b) Almost infinite
(c) Almost zero
(d) None of those

No, the answer is incorrect.
Score: 0
Accepted Answers:
(c)

8) In magneto statics, the magnetic field generated by a steady current is given by

(a) Biot-Savart’s Law
(b) Faraday’s Law
(c) Ohm’s Law
(d) Faraday’s Law

No, the answer is incorrect.
Score: 0
Accepted Answers:
(a)
10) Which one of the following attracts a magnet?

(a) Aluminium
(b) Copper
(c) Iron
(d) None of those

No, the answer is incorrect.
Score: 0
Accepted Answers:
(c)

10) Viscosity is most closely related to

(a) Diffusion
(b) Friction
(c) Adhesive force
(d) Cohesive force

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b)

11) The viscous drag on a spherical body moving with a speed \( v \) is proportional to

(a) \( 1/v^2 \)
(b) \( v^2 \)
(c) \( 1/v \)
(d) \( V \)

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d)

12)
Solder will be composed of

(a) 90% lead-10% tin and cores of rosin “flux”
(b) 10% lead-90% tin and cores of rosin “flux”
(c) 30% lead-70% tin and cores of rosin “flux”
(d) 60% lead-40% tin and cores of rosin “flux”

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d)

13) A voltmeter is a galvanometer with:

(a) A very low resistance connector in series with galvanometer coil
(b) A very low resistance connector in parallel with galvanometer coil
(c) A very high resistance connector in series with galvanometer coil
(d) A very high resistance connector in parallel with galvanometer coil

No, the answer is incorrect.
Score: 0
Accepted Answers:
(c)

14) Without changing the direction of incident ray, if the plane mirror is rotated by angle ‘\(\theta\)’, the reflected beam will rotate by angle:

(a) \(\theta\)
(b) \(2\theta\)
(c) \(\theta/2\)
(d) No change

No, the answer is incorrect.
Score: 0
Accepted Answers:
(b)
A transformer has an efficiency of 80%. It is connected to a power input of 5 kW at 200 V. If secondary voltage is 250 V, the primary and secondary currents are respectively

(a) 25 A, 20 A
(b) 20 A, 16 A
(c) 25 A, 16 A
(d) 40 A, 25 A
(e) 40 A, 16 A

No, the answer is incorrect.
Score: 0
Accepted Answers:
(c)

The length of the tube of a microscope is 10 cm. The focal lengths of the objective and eye le are 0.5 cm and 1 cm. The magnifying power of the microscope is about

(a) 5
(b) 166
(c) 23
(d) 500

No, the answer is incorrect.
Score: 0
Accepted Answers:
(d)
In the circuit shown in figure the inputs at A and B are respectively 7 V and 0.8 V. If the potential drops across the forward biased diodes are negligible and the breakdown voltage of zener diode is 5 V, the output voltage is:

(a) 0.8 V  
(b) 7 V  
(c) 3.9 V  
(d) 0 V  
(e) 5 V

No, the answer is incorrect.  
Score: 0  
Accepted Answers:  
(e)  

In the circuit shown, the internal resistance of the cell is negligible. The steady state current through the 2 Ω resistor is

(a) 0.6 A  
(b) 1.2 A  
(c) 0.9 A  
(d) 1.5 A
19) Least count of a screw gauge is:

(a) Pitch of screw gauge / no. of divisions on circular scale
(b) Pitch of screw gauge
(c) Pitch of screw gauge × no. of divisions on circular scale
(d) None of those

No, the answer is incorrect.
Score: 0
Accepted Answers: (a)

20) When the two jaws of the vernier calipers are in contact and the zero of the main scale does not coincide with the zero of the vernier scale then it is called

(a) Zero error
(b) Positive error
(c) Negative error
(d) None of those

No, the answer is incorrect.
Score: 0
Accepted Answers: (a)