

RAILWAY

TECHNICAL APTITUDE

- Angular frequency as is equal to**
A. $2\pi T$ B. $T/2$ C. $2/T$ D. $f/2$
- According to CCIR standards, television channel width is**
A. 1MHZ B. 5MHZ C. 7MHZ D. 10MHZ
- Starting motor is automobiles generally**
A. Induction motor C. Series motor
B. Squirrel cage motor D. Synchronous motor
- The bell crank lever is a**
A. Straight lever C. Simple bent lever
B. Compound lever D. None of the above
- The ratio of maximum deflection of a beam to its span is called**
A. strain C. poisson's ratio
B. stiffness D. safety factor
- Mercury thermometers can be used to measure temperature upto**
A. 360°C B. 500°C C. 212°C D. 100°C
- In the circuit shown, the reading of the volt meter V will be**
A. 9 volts B. 3 volts C. 4 volts D. 6 volts
- Whenever load on a shunt motor is increased, its speed drops mainly due to**
A. increase, in armature current B. eddy current losses
C. increase in its flux D. decrease in back e.m.f.
- Polarised capacitor is**
A. Mylar C. Electrolytic
B. Paper D. Ceramic
- Multimeters are generally of**
A. Analog type C. Digital type
B. Logical type D. Core type
- Rivets are made of following type of material**
A. Tough C. Ductile
B. Malleable D. None of the above
- The working cycle in case of 4-stroke engine is completed in following number of revolutions of crank shaft**
A. 3 B. $2\frac{1}{2}$ C. 4 D. 2
- Freon-22 is**
A. Dichloro flouro methane
B. Mono chloro Diflouromethane
C. Chloro triflouromethane
D. None of the above
- Arc welding a**
A. Pressure welding C. Soldering welding
B. Fusion welding D. Gas welding
- The spindle of bench vices are usually provided with**
A. V-thread C. Square thread
B. Buttress thread D. Acme thread
- Holes can exist in**
A. any material C. insulators
B. metal D. semi conductors
- Speed of grinding wheel is limited by**
A. Type of bond
B. Grinding operation
C. Rigidity of grinding machine
D. all of the above
- Ball pen functions on the principle of**
A. Viscosity C. Gravitational force
B. Boyle's law D. Surface tension
- The most common semi conductor material is**
A. Gallium C. Bismuth
B. Germanium D. Silicon
- In a petrol engine combustion takes place at**
A. Constant pressure C. Constant temperature
B. Constant volume D. Adiabatic conditions
- The ignition system used in a scooter is**
A. Battery ignition C. Mechanical ignition
B. Magneto ignition D. None of the above
- The specific gravity of a charged coil is**
A. 1.1 B. 1.25 C. 1.20 D. 1.0
- Density of Quartz is**
A. 18.6 B. 12.1 C. 6.3 D. 2.6
- Photovoltaic cells are widely used in**
A. Radars C. Remote sensing
B. Illumination D. All of the above
- The height of the general triangle is 80 cm and the base is 1800 cm what is the area of that triangle in sq. mt**
A. 7200 B. 7.28 C. 7.2 D. can't say
- The angle of deviation for a prism is greater for**
A. Violet B. Red C. Blue D. Green
- Commercial cork is obtained from the species of**
A. Quercus B. Pinus C. Cycas D. Corkus
- When a green leaf is seen in red light its colour**
A. Green B. Red C. Brown D. Black

29. Mechanical efficiency is given by
- A. $\frac{B.P}{I.P} \times 100$ C. $\frac{I.P}{B.P} / 100$
 B. $\frac{I.P}{B.P} \times 100$ D. None of the above
30. Set A has 3 elements, and set B has 6 elements. What can be the minimum number of elements in the set AUB
- A. 3 C. 6
 B. 9 D. 18
31. Depth of Ocean is measured by
- A. Fathometer C. Sonometer
 B. Spectrometer D. Depth meter
32. Baking soda is
- A. K_2CO_3 C. Na_2CO_3
 B. $NaHCO_3$ D. None of the above
33. During day time plants absorb
- A. O_2 C. N_2
 B. CO_2 D. CO
34. Balmer series of lines are visible in
- A. U.V. spectra C. Visible spectra
 B. I.R. spectra D. Hydrogen spectra
35. Cobalt and Nickel are
- A. Diamagnetic C. Anti ferro magnetic
 B. Para magnetic D. Ferro magnetic
36. Nelson cell is used for the manufacture of
- A. Li C. NaOH
 B. Na D. NaCl
37. An ideal gas is one which
- A. Can be easily liquified
 B. Has no forces between the molecules
 C. Has strong inter molecular forces
 D. All are true
38. Specific heat is a property
- A. Extensive C. Chemical
 B. Intensive D. None of the above
39. In a television
- A. Picture is AM, Sound is AM
 B. Picture is AM, Sound is FM
 C. Picture is FM, Sound is FM
 D. Picture is FM, Sound is AM
40. Which capacitor is widely used
- A. Air capacitor C. Mica capacitor
 B. Paper capacitor D. Electrolytic capacitor
41. Compression ratio in diesel engine is
- A. 5:1 to 7:1 C. 10:1 to 12:1
 B. 14:1 to 22:1 D. 1:10 to 12:1
42. The possible resistance of the shunt field winding of a D.C. machine is
- A. 20Ω C. 2
 B. 200 D. 1
43. For a square wave the form factor is
- A. 1.15 C. 1.10
 B. 1.11 D. 1.0
44. A.C. can be easily lowered and raised by
- A. rectifier C. converter
 B. transformer D. motor generator set
45. For measuring a value of resistance, which of the meter will give accurate result
- A. Ohm meter C. Multimeter
 B. Vacuum tube voltmeter D. Potentiometer
46. The commonly used material for thermocouples is
- A. Chromel copel C. Platinum rhodium
 B. Chromel alumel D. Any of the above
47. An exciter is nothing but a
- A. D.C. Shunt motor C. D.C. Shunt generator
 B. D.C. Series motor D. D.C. Series generator
48. In a transformer the chemical contained inside the breather is
- A. water C. mineral wool
 B. mica D. silica gel
49. Which of the following applications would need the smallest size of motor
- A. domestic mixi C. table fan
 B. electric clock D. sewing machine
50. Sodium vapour lamp can be operated in
- A. any position C. vertical position
 B. a horizontal position D. an inclined position
51. Street lights are usually provided at a height of
- A. 2 mt C. 3 to 4 mt
 B. 2.5 to 3 mt D. 5 to 10 mt
52. The efficiency of electric oven is generally in the range
- A. 10% to 25% C. 60% to 80%
 B. 30% to 50% D. 80% to 95%
53. Steel rails are welded by
- A. Resistance welding
 B. Thermit welding
 C. Argon arc welding
 D. Gas welding
54. Which colour of flame represents the highest temperature
- A. Deep blue C. Light purple
 B. Brown yellow D. Very faint yellow
55. Which of the following materials is least ductile
- A. tin C. silver
 B. zinc D. nickel
56. Gears free from interference is
- A. Cycloid gears C. Epicycloid gears
 B. Hyocycloid gears D. Involute
57. Insulation resistance of the cable is measured in terms of
- A. Ohms C. Mega Ohms
 B. Micro Ohms D. Kilo Ohms
58. Which of the following substances has the greater viscosity
- A. Water C. Oxygen
 B. Mercury D. Hydrogen
59. Boosters are basically
- A. Inductors C. Transformers
 B. Capacitors D. None of the above
60. The digital systems usually operate on system
- A. Binary C. Octal
 B. Decimal D. Hexa decimal