JUNIOR INSTRUCTOR (ELECTRICIAN), INDUSTRIAL TRAINING

#### EXAM DATE:22-02-2017

# **1.**The total resistance of **30** Ohm resistor and a **15** ohm resistor connected in parallel

- A.10 Ohms
- B.45 Ohms
- C.150 Ohms
- D.60 Ohms
- Ans:A

#### 2. Hack saw blades are made up of steel

- A.Mild
- **B.High Carbon**
- C.Stainless
- D.High speed
- Ans:D

### 3.Which type of chisel you would select for squaring the corners?

- A.Web chisel
- **B.Diamond chisel**
- C.Cross chisel
- D.Hald round chisel

Ans:B

# 4.Which type of shape is used for displaying the 'No Smoking 'prohibition sign?

A.Circular

B.Rectangle

C.Triangle

D.Square

Ans:A

#### 5.What is the commercial unit of electrical energy?

- A.Watt hour
- B.Mega watt hour
- C.Watt second
- D.Kilowatt hour

Ans:D

### 6.As per Ohm's law state that in a closed electric current is directly proportional to:

A.Resistance

B.Voltage

C.Temperature

D.Specific resistance

Ans:B

# 7.Three resistance 1 K Ohm,2 K Ohm and 7 K Ohms are connected in series with a 30 V supply.The total resistance and current are:

A.10 K Ohms,3 A

B.10 K Ohms, 300mA

C.5 K Ohms,3mA

D.10 K Ohms,3 mA

Ans:D

### 8.A material that can be magnetized only very slightly is called:

A.Diamagnetic

B.Tara magnetic

C.Ferromagnetic

D.Magnetic

Ans:B

#### 9.The S.I.Unit of the flux density of magnet is:

A.Gauss

B.Lines/cm2

C.Tesla

D.Webber/meter

Ans:C

### 10.In a 3 phase balanced load, the current in the neutral wire is:

A.Zero

B.3xIL

C.2xlPh

D.IL

Ans:A

### 11.The metal used for the control spring in an electrical instrument is:

A.Steel

B.Nichrome

C.Hard drawn copper

D.Phosphor-bronze

Ans:D

#### 12.A moving coil instrument works on:

A.Electromagnetic effect

B.Heating effect

C.Chemical effect

D.Electrostatic effect

Ans:A

### 13. The working principle of dynamo meter instruments is

#### similar to that of:

A.AC induction motor

B.Lenz's law

C.D.C.Motor

D.Faraday's laws of electromagnetic induction

Ans:C

#### 14. The rotating speed of the magneto type megger is:

- A.180 rpm
- B.160 rpm
- C.150 rpm
- D.120 rpm

Ans:B

### **15.The current transformer steps up:**

- A.Voltage
- **B.Current**
- C.Power

D.Energy

Ans:A

### 16.The unit of frequency is:

A.Ohm

**B.Joules** 

C.Hertz

D.Watts

Ans:C

#### 17.If the power factor of a circuit is unity, its reactive power is:

A.Zero

**B.Unity** 

C.Maximum

D.Minimum

Ans:A

### **18.**The capacitor is connected in a ceiling fan is:

A.Series to the running winding

B.Parallel to the running winding

C.Parallel to the starting winding

D.Series to the starting winding

Ans:D

### **19.The reciprocal of resistance is:**

A.Henry

**B.Conductance** 

C.Coulomb

D.Impedance

Ans:B

#### 20.The inner tube of high pressure MV lamp has:

A.Halogen gas

B.Helium gas

C.Argon gas

D.Nitrogen gas

Ans:C

### 21.Two 250 V,100W lamps when connected in series to 250 V,supply will light:

A.Bright

B.One dim and other bright

C.Do not glow

D.Dim

Ans:D

#### 22.According to the N.E.Code, the colour code for the neutral

is:

A.Black

B.Red

C.Blue

D.Green

Ans:A

# 23.The process by which an e.m.f induced in a DC generator is called:

A.Static

**B.Chemical** 

C.Dynamic

D.Thermal

Ans:C

#### 24. The material used for split rings is:

A.Gold

B.Iron

C.Aluminium

D.Copper

Ans:D

#### 25.The armature core is laminated to minimize the:

A.Cost

B.Eddy current loss

C.Hysteresis loss

D.Weight

Ans:B

# 26.The conductors of the armature winding are soldered to the commutator at the

A.Segment internally

**B.Segment directly** 

C.Riser

D.Brushes

Ans:C

# 27.In a four pole simplex lap-wound armature the number of parallel paths are

A.4

B.6

C.2

D.8

Ans:A

#### **28.**To get spark less commutation, we use:

A.Copper brushes

**B.**Compensating winding

C.Armature lamination

D.Inter poles

Ans:D

#### **29.The speed of a DC series motor at no load is:**

A.Zero

B.3600 rpm

C.Infinite

D.3000 rpm

Ans:C

### 30. Which application requires a high starting torque?

A.Lathe machine

**B.Locomotive** 

C.Reciprocating pump

D.All the above

Ans:B

#### **31.A step-up transformer increases:**

A.Current

**B.**Power

C.Frequency

D.Voltage

Ans:D

#### 32. The purpose of oil in the transformer is to:

A.Lubricate

B.Insulate and cool

C.Lubricate and cool

D.Cool

Ans:B

#### **33.The frequency used in India is:**

A.50 Hertz

B.60 Hertz

C.120 Hertz

D.75 Hertz

Ans:A

#### 34. The output of an alternator is rated in:

A.KW

B.HP

C.B.HP

D.KVA

Ans:D

### 35.Which of the following is not a part of a rotor?

A.Core

B.Shaft

C.End plate

D.Winding

Ans:C

### **36.**The function of flux in soldering is:

A.To clean the dirt on the soldering surface

B.To lower the melting temperature of solder

C.For easy flow of solder into the joint

D.All the above

Ans:D

#### 37. One mega ohm resistance is equal to

A.100 K Ohm

B.1000 K Ohm

C.10000 K Ohm

D.100000 K Ohm

Ans:B

### **38.**The temperature co-efficient of resistance of a semi conductor is:

A.Zero

**B.Extremely high** 

C.Positive

D.Negative

Ans:D

#### **39.Which element is used as Semi conductor material?**

A.Copper

**B.Plastic** 

C.Silicon

**D.Brass** 

Ans:C

#### 40.The rectifier circuit depends on the operation of:

A.Coil

**B.Resistance** 

**C.Transistors** 

D.Diodes

Ans:D

#### 41.A half wave rectifies is suitable only for:

A.Car radies

B.Variable speed

C.Battery charging

D.Electroplating

Ans:C

### 42.The R.M.S.voltage at the transformer secondary is 6 volts.It's peak value is

A.8.5 V

B.9.6 V

C.7.2 V

D.12 V

Ans:A

#### 43. The base materials used for making PCB's are:

A.Ceramic, mica

- B.Rubber, ebonite
- C.Fiber,glass epoxy
- D.All the materials mentioned above

Ans:C

#### 44.A transistor has:

- A.One PN Junction
- **B.Two PN Junction**
- C.Three PN Junction
- **D.Four PN Junction**

Ans:B

#### 45.A transistor is a -----operative device

A.No hage

**B.Current** 

C.Both Voltage and current

D.None of the above

Ans:B

#### 46.An SCR is a:

A.Transistor

**B.Alternator** 

C.Semi-conductor device

D.Heat regulating device

Ans:C

# 47.In one of the following domestic appliance universal motor is used:

A.Food mixer

**B.Grinder** 

C.Fan

D.Washing machine

Ans:A

#### 48.For safety, the fuses should be placed on:

A.Any wire

B.Earth wire

C.Neutral cable

D.Phase cable

Ans:D

#### 49.The maximum permissible load in a lighting sub circuit is:

A.880 W

B.850 W

C.800 W

D.750 W

Ans:C

### **50.Copper losses in a transformer is that power loss caused by:**

A.Resistance

B.Eddy current

C.Counter E.M.F

D.Magnetic field reversal

Ans:A

# 51.Hysteresis loss in a transformer is reduced by using the proper:

A.Number of coils

B.Material in the core

C.Load

D.Lamination thickness

Ans:B

#### 52.Transformer is used to change the value of:

A.Frequency

**B.Power** 

C.Voltage

**D.**Power factor

Ans:C

#### 53. The colour of dry silica gets is:

A.Pale yellow

B.Pale pink

C.Plae green

D.Blue

Ans:B

# 54.Thermal overload relay is provided in starter to protect the motor against

A.Excess current

**B.Short circuit** 

C.Open circuit

D.Low voltage

Ans:A

#### 55.Inching operation is also called as:

A.Starting

**B.Stopping** 

C.Jogging

D.Breaking

Ans:C

#### **56.A slip ring induction motor has:**

A.Wound rotor

B.Short circuited rotor

C.Double cage motor

D.None of the above

Ans:A

# 57.In a shaded pole single phase motor the revolving field is produced by:

A.Capacitor

**B.Shading ring** 

C.Regulator

D.Winding

Ans:B

#### 58.In distributed winding all the coils will live the same:

A.Pitch

B.Width

C.Length

D.Thickness

Ans:C

#### 59. The tip of the soldering iron is made of:

A.sted

B.Copper

C.Tin

D.Chromium

Ans:B

#### 60.The type of insulator used in stay wire is:

A.Pin type

B.Suspension type

C.Shackle type

D.Egg type insulators

Ans:D

# 61.While using wooden poles the span should not exceed-meters.

A.40-50 m

B.50-8 m

C.60-110 m

D.100-300 m

Ans:A

# 62.Which of the following gates a high output with all the input high?

A.NOT

B.OR

C.AND

D.NOR

Ans:C

### 63.Epoxy compound used with underground cable does not need:

A.Cooling

**B.Heating** 

C.Stirring

D.Mixing

Ans:B

#### 64.The chance of occurrence of corona are maximum during:

A.Dry weather

**B.Winter** 

C.Hot summer

D.Humid weather

Ans:D

### 65.The critical value of surge impedance of a long transmission line is:

A.50 Ohm

B.100 Ohm

C.150 Ohm

D.200 Ohm

Ans:A

### 66.The conductor carries more current on the surface in comparison to its core.The phenomenon is called the :

A.Corona

B.Lenz's law

C.Ferranti effect

D.Skin effect

Ans:D

#### 67.The largest size hydro electric unit in India is:

- A.500 MW
- B.165 MW
- C.350 MW

D.90 MW

Ans:B

#### 68.For high head and low discharge, the water turbine used in:

- A.Kaplan turbine
- **B.Francis turbine**
- C.Pelton wheel
- D.Propeller turbine

Ans:C

#### 69.Control rods used to nuclear reactors are made of:

A.Boron

**B.Zirconium** 

C.Beryllium

D.Lead

Ans:A

# 70.The fraction of a solar collector is of converting solar energy into:

A.Radiations

B.Electrical energy directly

C.Kinetic energy

D.Thermal energy

Ans:D

### 71. The digits used in binary number system are:

A.0,0

B.0,1

C.1,2

D.2,2

Ans:B

### 72.Fleming's right hand rule is to identify the:

A.Direction of flux

B.Direction of rotation of a generator

C.Direction of current in a motor

D.Direction of induced e.m.f

Ans:D

### 73.Which type of DC generator is used for welding generator set?

A.DC differential compound generator

B.DC cumulative compound generator

C.DC series generator

D.DC shunt generator

Ans:A

#### 74.Poly face induction motor is usually:

A.Self starting

**B.Slow starting** 

C.Not self starting

D.None of these

Ans:A

### 75.In a 3 point starter the No Volt Coil(NVC)is connected in series with:

A.Armature

**B.Field** 

C.Supply

D.Starting resistor

Ans:B

#### 76.A wire gauge is used to measure

A.Diameter of a wire

B.Length of a wire

C.Thickness of insulation layer

D.Area of wire

Ans:A

#### 77.Coolant is used for cooling the

- A.Job only
- B.Machine

C.Hot chips

D.Cutting tool

Ans:D

### 78.In which type fire both foam and dry powder fire extinguishers can be used?

A.Class'A'Fire

B.Class'B'Fire

C.Class'C'Fire

D.Class'D'Fire

Ans:B

### 79.Which one of the materials of the atom contains only four free election?

A.Gold

B.Copper

C.Germanium

D.Mica

Ans:C

### 80.Negative temperature cost-efficient among the following materials:

- A.Tungsten
- B.Carbon
- C.Gold

D.Silver

Ans:B

# 81.The year in which the fourteen Indian Commercial Banks were nationalised:

A.1969

B.1976

C.1982

D.1991

Ans:A

### 82.The Article of Indian Constitution which endows special status to the state of Jammu and Kashmir:

A.356

B.370

C.357

D.365

Ans:B

### 83.National Academy of Administration, Mussoorie is named after which of the following statesman?

A.Jawaharlal Nehru

B.Sardar Vallabhai Patel

C.Lal Bahadur Shastri

D.Indira Gandhi

Ans:C

### 84.The headquarters of Zoological Survey of India is situated at:

A.Kolkata

B.Bengalooru

C.Mumbai

D.New Delhi

Ans:A

#### 85. Whose Autobiography is 'THE INDIAN STRUGGLE'?

A.Maulana Abdul Kalam Azad

B.M.A.Ansari

C.Subhash Chandra Bose

D.B.R.Ambedkar

Ans:C

#### **86.National Training Centre for Dogs is situated in:**

A.Indore

**B.Gwallior** 

C.Bhopal

D.Nagpur

Ans:B

# 87.One of the tributaries of River Cauvery orginates from Kerala.Which of the following

A.Neeleswaram

B.Bhavani

C.Kabani

D.Pambar

Ans:C

# 88.Who was the first President of Jathinashini Sabha, an association for abolition for caste system in Kerala?

A.Mitavadi Krishnan

B.K.Kelappan

C.Swami Agamananda

D.Sahodaran Ayyappan

Ans:B

#### 89.Ente Jeevitha Smarankal is the autobiography of:

A.K.P.Kesava Menon

B.E.M.S.Nampoothiripad

C.Mannath Padmanabhan

D.P.Krishnapillai

Ans:C

### 90.Who is the captain of the Indian Kabbadi Team which won the Kabbadi Team which won the Kabbadi World Cup 2016?

A.Ajay Thakur

B.Anup Kumar

C.Nitin Tomar

D.Anil Razdan

Ans:B

### 91.Hortus Malabaricus, a monumental work on Botany is the contribution of:

A.The Portuguese

B.The British

C.The Dutch

D.The French

Ans:C

#### 92.Who was the last Diwan of the Princely State of Cochin?

A.R.K.Shanmugham Chetti

B.C.P.Karunakara Menon

C.P.S.N.Unnithan

D.A.F.W.Dixon

Ans:B

### 93.River Churni referred to in Kautilyas'Arthashastra is identified with which of the following rivers in Kerala?

A.Bharatapuzha

B.Pampa

C.Periyar

D.Chaliyar

Ans:C

### 94.Which constitutional amendment upheld the power of Parliament to amend the fundamental rights?

A.22<sup>nd</sup> Amendment

B.42<sup>nd</sup> Amendment

C.63<sup>rd</sup> Amendment

D.72<sup>nd</sup> Amendment

Ans:B

#### 95.The only fresh water lake in Kerala:

A.Vembanad

B.Kayamkulam

C.Shastamkotta

D.Aakkulam

Ans:C

### 96.The last visit of Mahatma Gandhi to Kerala was in connection with which of the following events?

A.1920 Khilafat Agitation

B.1942 Quit India

C.1936 Temple Entry Proclamation

D.1931 Guruvayoor Satyagraha

Ans:C

### 97.Pasteur Institute of India, one of the leading institutes in the production of Anti-rabbis vaccine is located at:

A.Ooty

B.Coonoor

C.Kodaikanal

D.Kothagiri

Ans:B

### 98.NAURA, a place which finds mention in ancient historical records of Kerala stands for:

A.Varkala

B.Kollam

C.Kannur

D.Kodungalloor

Ans:C

### 99.The Union Railway Minister who presented the most number of Railway budgets:

A.Madhav Rao Sindhia

B.Laloo Prasad Yadav

C.C.K.Jaffer Sherif

D.Jag Jeevan Ram

Ans:D

#### **100.Silver Revolution is related to:**

A.Milk

**B.Steel** 

C.Egg

D.Fish

Ans:C