Duration: 60 Mins   **Total Marks: 63**   **ID: ITISKILL3046ZK**

Student Name: _____   Roll No: _____

1. How many days a mechanic takes to assemble 64 machines if he assembles 8 machines in 3 days?

   A) 22 days   B) 24 days
   C) 26 days   D) 20 days

2. How many hours will take for a 100 watts bulb to consume 1 kwh energy?
 W = 1 Kwh
 P = 100 Watts <br> t = ____Hours

   A) 10 hours   B) 18 hours
   C) 24 hours   D) 12 hours

3. What is the percentage of copper if the casting weight of copper 42.3 kg and tin weight 2.7 kg?

   A) Cu 96%   B) Cu 94%
   C) Cu 98%   D) Cu 92%

4. Which is the example for statically induced emf?

   A) Refrigerator   B) Transformer
   C) Generator   D) Motor

5. What is the x value for $x^2 + 62 = 126$?

   A) 4   B) 10
   C) 6   D) 8

6. What is the flow of electrons in any conductor?

   A) Current   B) Power
   C) Voltage   D) Resistance

7. Which is equal to electric power?

   A) I^2R watts   B) IRA
   C) R^2I watts   D) RI

8. A motor cycle tyre is sold for Rs 300/- what is the purchase price if 25% profit is added to it.

   A) Rs 200   B) Rs 220
   C) Rs 240   D) Rs 260

9. What is the square root of 0.017?

   A) 0.13   B) 0.00001
   C) 0.001   D) 0.000001

10. Which is the unit of resistance?

   A) Ohm   B) Watt
   C) Volt   D) Ampere

11. What is the total resistance if three resistances of 3 ohms, 9 ohms and 5 ohms are connected in series?

   A) 11 ohms   B) 7 ohm
   C) 17 ohms   D) 1/17 ohms

12. What is the LCM of 12, 18, 6, 36?

   A) 36   B) 42
   C) 18   D) 12

13. Which is the unit electrical power?

   A) Ampere   B) Ohms
   C) Watts   D) Volts

14. What is the improper fraction for the given mixed fraction ? 7 x (3/7)

   A) "7/28"   B) (52/7)
   C) "28/7"   D) "7/52"

15. What is the voltage of the immersion heater?
P = 500 watts
 I = 2.27 Amps
 V = _____Volts

   A) 230.3 volts   B) 210.3 volts
   C) 200.3 volts   D) 220.3 volts

16. Which property of a substance is opposing the flow of electric current?

   A) Resistance   B) Current
   C) Voltage   D) EMF

17. Convert decimal 0.000659 to fraction?

   A) (659/10000)   B) (659/1000000)
   C) (659/100000)   D) (659/1000)

18. How much is 8% of 40 kg?

   A) 3.2 kg   B) 2.2 kg
   C) 5.2 kg   D) 4.2 kg

19. What is the length of each part is a copper wire of 225 metre long is cut into 900 equal parts?

A) 0.25 metre
B) 0.28 metre
C) 0.29 metre
D) 0.23 metre

20. Simplify: (17.49x5.2)/(6.5)

A) 13.69
B) 13.79
C) 13.89
D) 13.99

21. What is the product of 0.003 x 0.5?

A) 0.0015
B) 0.15
C) 0.015
D) 0.00015

22. What is the resistance?
 I = 11.5 Amps
 V = 380 Volts
 R = _____Ohms

A) 23 ohms
B) 43 ohms
C) 33 ohms
D) 13 ohms

23. What percentage of 80 is 20?

A) 0.2
B) 0.25
C) 0.4
D) 0.8

24. What is the unit of intensity of magnetic field?

A) m/wb
B) Coloumb
C) wb/m
D) Hertz

25. What denotes letter M in MKS system?

A) Micron
B) Millimeter
C) Meter
D) Mile

26. What is the square root of decimal number 550.37?

A) 22.46
B) 22.26
C) 21.26
D) 23.46

27. What is the filament resistance if a 6 volt bulb draws a current of 0.5 Amps?

A) 10 W
B) 1.2 W
C) 12 W
D) 3 W

28. What is the HCF of 18, 42, 24?

A) 2
B) 18
C) 24
D) 6

29. What will be the rpm of smaller gear if a 180 mm dia meshes with 60 mm dia gear and the bigger gear makes 60 rpm?

A) 120 rpm
B) 180 rpm
C) 160 rpm
D) 140 rpm

30. What are fundamental units?

A) Length, Mass, Time
B) Length, Mass, Volume
C) Length, Pressure, Volume
D) Length, Mass, Area

31. How much voltage will be required to illuminate a 40 watts fluorescent lamp draws a current of 0.10 amperes?

A) 400 volts
B) 390 volts
C) 405 volts
D) 395 volts

32. How much watt second in 1 watt hour?

A) 1000 watt sec
B) 2000 watt sec
C) 4000 watt sec
D) 3600 watt sec

33. Which is very good conductor?

A) Cast iron
B) Steel
C) Wrought iron
D) Copper

34. Which statement is correct according to ohm's law?

A) I = 1/V
B) I = R
C) I = R/V
D) I = V/R

35. Divide (20/31)/(15/62)

A) 2(3/2)
B) 2(2/3)
C) 2(4/3)
D) 2(1/3)

36. What is the current?
 R = 50 Ohms
 220 Volts
 I =_____Amps

A) 4.3 Amps
B) 4.2 Amps
C) 4.1 Amps
D) 4.4 Amps

37. What is the decimal fraction of conversion of 18.5%?

A) 0.185
B) 0.195
C) 0.175
D) 0.165

38. Which is the example for dynamicallly induced Emf?

A) Motor bike
B) Motor
C) Generator
D) Car

39. How much power does it consumes if an electric heater draws a current of 10 amps at 200 volts?

A) 2000 watts
B) 2020 watts
C) 2010 watts
D) 2030 watts

40. Which law states that at constant termperature the current passing through a closed circuit is directly proportional to the potential difference and inversely proportional to the resistance?

A) Newton's law
B) Ohm's law
C) Lenz's law
D) Hooke's law

41. What is the current Flow in the bulb?
 P = 550 watts
 R = 22 Ohms
 I = _____Amps

A) 4 Amps   B) 5 Amps

C) 3 Amps   D) 2 Amps

42. What is the formual for induced emf?

A) BL sinq volts   B) BLV sinq volts

C) B²L sinq volts   D) B²V sinq volts

43. Which is same in series connection of resistors in a circuit?

A) Power   B) Current

C) Resistance   D) Voltage

44. What is the length L2, if total length (L) is 2.75 metre and L1:L2 = 2:3?

A) 1.1 metre   B) 1.25 metre

C) 1.75 metre   D) 1.65 metre

45. Which is the unit of current?

A) Ohm   B) Watt

C) Volt   D) Ampere

46. Convert 0.456 decimal fraction into percentage?

A) 0.456   B) 0.0456

C) 0.000456   D) 45.6

47. What is the definition of ratio?

A) Equality between two ratios   B) Relation of two quantities of the different kind

C) Relation of two quantities of the same kind   D) Inequality between two ratios

48. What is the resistance of an electric iron if the rating of electric iron is 220 V and 500 watts?

A) 94.8 ohms   B) 95.8 ohms

C) 97.8 ohms   D) 96.8 ohms

49. How many millimetres are there in 1 inch?

A) 24.5 mm   B) 2.45 mm

C) 2.54 mm   D) 25.4 mm

50. What is the total resistance if two resistances of 4 ohms and 6 ohms are connected in parallel?

A) 5   B) 2.4

C) 4   D) 10

51. What is the rated power if an adjustable resistor bears the following label 1.5 k ohms/ 0.08A?

A) 9.6 watts   B) 9.8 watts

C) 9.2 watts   D) 9.4 watts

52. Which is mineral insulator

A) Porcelain   B) Glass

C) Quartz   D) Mica

53. What does EMF stands for?

A) Electronic Magnetic Force   B) Electro Magnetic Force

C) Electromated Force   D) Electro Motive Force

54. What is the power required?
 I = 0.455 Amps
 R = 484 Ohms
 P = _____Watts

A) 100.2 watts   B) 101.2 watts

C) 98.2 watts   D) 99.2 watts

55. Simplify: (3/4)+(2/5)-(5/20)

A) (3/10)   B) (9/10)

C) (13/10)   D) (12/10)

56. Which law states about electromagnetic induction?

A) Ohm's law   B) Lenz's law

C) Hooke's law   D) Faraday's law

57. What is the voltage?
 R = 250 Ohms
 I = 0.44 Amps
 V = _____Volts

A) 108 Volts   B) 100 Volts

C) 110 Volts   D) 105 Volts

58. What are the two classifications of system of units?

A) Metric and International   B) British and Metric

C) Fundamental and derived   D) Gravitational and non-gravitational

59. What is the power if an emf of one volt causes a current flow of 1ampere?

A) 1 watt   B) 1 HP

C) 1 kilowatt   D) 1 Kilowatt hour

60. Which machine converts mechanical energy into electrical energy?

A) Heater   B) Iron box

C) Battery   D) Generator

61. What is the square root of 529?

A) 43   B) 23

C) 12   D) 33

62. Convert 52% into fraction?

A) (13/25)   B) (11/25)

C) (17/25)   D) (9/25)

63. What is the ratio of 4 kg to 800 grams?

A) 04:08   B) 08:04

C) 02:04   D) 05:01