GENERAL KNOWLEDGE INFORMATION

1. Which of the following is not a valid MS Power Point View?

   A. Normal View
   B. Notes Page
   C. Reading View
   D. Slide Show

2. Who is the Current Federal Interior Minister of Pakistan?

   A. Pervez Khattak
   B. Shafqat Mahmood
   C. Ijaz ahmed shah
   D. Shehryar Khan Afridi

3. On 15th August, 1947, Qauid-e-Azam took oath as the first _____ of Pakistan.

   A. President
   B. Prime Minister
   C. Chief Justice
   D. Governor General

4. Which key is used to move the cursor to the beginning of line?

   A. Home
   B. Page up
   C. Left Arrow Key
   D. Up Arrow Key
   E. F1

5. If we type incorrect spelling of a word in MS Word, which of the following option will correct the spellings of words document automatically?

   A. Spelling and Grammar
   B. Auto Correct
   C. Auto Format
   D. Thesaurus

6. Allahabad session was held in 1930 by:

   A. Congress
   B. Simon Commission
   C. All India Muslim League
   D. Peoples Party

7. Which menu should we used, if we want to add Clip Art?

    A. File
    B. View
    C. Insert
    D. Help

8. In MS Excel if we want to add a mathematical symbol which cannot be typed through keyboard, which option will be used?

    A. Insert => Special Character
    B. Insert => Symbol
    C. View => Special Character
    D. View => Symbol

9. Who is the Current Federal Minister of Parliamentary Affairs?

    A. Noor-ul-Haq Qadri
    B. Shafqat Mahmood
    C. Muhmmad Azam Swati
    D. Ali Muhammad Khan

10. Which of the following is used to edit a chart in MS Excel?

    A. Drag the chart
    B. Right Click on the chart
    C. Left click on the chart
    D. Double click on the chart

11. Ethics is a system of:

    A. Values
    B. Norms
    C. Principles
    D. Rules

12. To open an existing presentation in MS Power Point which will be the right choice?

    A. Choose File => New
    B. Press Ctrl + N
    C. Press Ctrl + O
    D. Choose View => New

13. The desert in the Bahawalpur district in Punjab is known as _____ desert.

    A. Cholistan
    B. Tharparkar
    C. Nara
    D. Thal

14. Which of the following is not a valid MS Office Document?

    A.   .docx
    B.   .pptx
    C.   .vob
    D.   .doc

15. When Pakistan came into being, at that time Pakistan had _____ provinces.

    A.   04
    B.   05
    C.   06
    D.   07

16. The basic driving force behind the creation of Pakistan is:

    A.   Hindu co-existence
    B.   Islamic ideology
    C.   Hinduism
    D.   Hindu-Muslim Unity

17. How many times, the word 'Salat' (prayer) is mentioned in the Holy Quran?

    A.   700 times
    B.   800 times
    C.   900 times
    D.   1000 times

18. If in the transfer function of a system, there is present a zero in the mirror image position for every pole in the LHS half plane, then the system is called:

    A. Minimum phase system
    B. Non-minimum phase system
    C. All pass systems
    D. All stop systems

19. Zeros are the complex frequencies of a transfer function where the response becomes:

    A. Infinite
    B. Zero
    C. Oscillatory
    D. Exponentially decaying

20. When a control signal is required to have a power level higher than the capability of linear electronic amplifiers, which of the following is preferred?

    A. Amplidyne
    B. AC servomotor
    C. AC tachometer
    D. Metadyne

21. Transfer function of the control system depends on:

    A. System parameters alone
    B. Nature of the input
    C. Initial conditions of input and output
    D. Nature of the output

22. For a transfer function $H(s) = P(s) / Q(s)$, where $P(s)$ and $Q(s)$ are polynomials in s. Then;

    A. The degree of $P(s)$ is always greater than the degree of $Q(s)$
    B. The degree of $P(s)$ and $Q(s)$ are same
    C. Degree of $P(s)$ is independent of degree of $Q(s)$
    D. Maximum degree of $P(s)$ and $Q(s)$ differ at most by one

23. Slope of asymptote in Bode plot of 2nd order system is _____ per octave.

    A. 18 dB
    B. 12 dB
    C. 06 dB
    D. 03 dB

24. Which of the following control systems provides good performance if offset is to be avoided?

    A. Proportional action
    B. Proportional plus integral action
    C. Proportional plus differential action
    D. Proportional plus integral action plus differential action

25. For a type I system, the position error arises at steady state when there is a:

    A. Constant acceleration input
    B. Step displacement input
    C. Ramp or velocity input
    D. Unit parabolic input

26. The device that can act as a complete electronic circuit is:

    A. Zener diode
    B. Junction diode
    C. Integrated circuit'
    D. Junction transistor

27. A common emitter amplifier has a voltage gain of 50, an input impedance of 100 ohms and an: output impedance of 200 ohms. The power gain of the amplifier is:

    A. 1250
    B. 500
    C. 100
    D. 50
    E. 2000

28. The characteristic of a thyristor closely resemble to the characteristics of:

    A. PN-junction
    B. Constant voltage source
    C. Constant current source
    D. Thyratron gas tube

29. What is the advantage of class A operation of an amplifier?

    A. Its low distortion
    B. Its high gain
    C. Its high efficiency
    D. Its high adeptness

30. Which one of the following is an active device?

    A. Electric bulb
    B. Transformer
    C. SCR
    D. Loudspeaker

31. A tangent galvanometer is:

    A. An absolute instrument
    B. A secondary instrument
    C. A recording instrument
    D. An integrating instrument

32. An N-type crystal is:

    A. Neutral
    B. Negatively charge
    C. Positively charged
    D. Insufficient Information

33. A device which converts mechanical energy into electrical energy is called;

    A. Electric generator
    B. Transformer
    C. Mechanical device
    D. Amplifier

34. The internal voltage drop in the case of silicon diodes is around:

    A. 2 to 5 volts
    B. 0.6 to 0.7 volts
    C. 5 to 10 volts
    D. 10 to 20 volts

35. The rotating part of a DC generator is knows is:

    A. Pole
    B. Stator
    C. Commutator
    D. Armature

36. Every chemical element has its own unique type of particle, called its:

    A. Molecule
    B. Electron
    C. Proton
    D. Atom

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37.

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4

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37. Which of the following can be measured by using Hall's effect?

    A. Magnetic field intensity
    B. Electrical energy
    C. Electrostatic field intensity
    D. Average number of holes

38. The potential barrier in germanium p-n junction is:

    A. 0.3 V
    B. 0.7 V
    C. 1 V
    D. 0.5 V

39. A solid state detector mainly consists of a _____.

    A. Silicon diode
    B. Silicon crystal
    C. Transistor
    D. Germanium crystal

40. The series-parallel combination of solar cells is known as:

    A. Photo-combination cell
    B. Photoelectric cell
    C. Photovoltaic array
    D. Combination diode

41. A binary digital system deal with quantities or variables which have _____ discrete values or states.

    A. 04
    B. 03
    C. 02
    D. 05
    E. 06

42. The ripple factor is _____ for a half wave rectified sine wave.

    A. 1.65
    B. 1.45
    C. 1.21
    D. 1.00

43. Who discovered the thermionic emission?

    A. Gamows
    B. Lee de Forest
    C. Edison
    D. Rutherford

44. In the FET, current flows along a semiconductor path called:

    A. Channel
    B. Drain
    C. Source
    D. Junction

45. Lenz's law is a statement of law of conservation of_____ that can be conveniently applied to the circuits involving induced currents.

    A. Energy
    B. Mass
    C. Charge
    D. Momentum

46. If the speed of a shunt motor is to be controlled between zero and normal running speed N, the most practical way to achieve this would be to insert a resistance of suitable value in:

    A. Parallel with the field
    B. Series with the field
    C. Parallel with the armature
    D. Series with the armature

47. A charged body moving along a circle in a magnetic field $B= 10^{-2}$ T, a mass $m= 10^5$ kg, velocity $v= 1$ m/s, and charge $q= 10^7$ coulomb. What is the radius of its circular track?

    A. 0.1 m
    B. 10 m
    C. 100 m
    D. 1.0 m

48. The current generated when a conductor moves across a magnetic field is called:

    A. Active emf
    B. Effective emf
    C. Optimum emf
    D. Induced emf

49. Two coils having equal resistances, but different inductances are connected in series. The time constant of the series combination is the:

    A. Sum of the time constants of the individual
    B. Average of the time constants of individual coils
    C. Product of the time constants of individual coils
    D. Geometric mean of the time constants of individual coils

50. Permeance is the reciprocal of:

    A.   Flux density
    B.   Resistance
    C.   Ampere-turns
    D.   Reluctance

51. A DC shunt motor running at rated load and speed with rated supply voltage. If the supply voltage is halved, then the speed of the motor becomes:

    A.   Slightly more than the rated speed
    B.   Slightly less than the rated speed
    C.   Half of the rated speed
    D.   Double of the rated speed

52. Which of the following is NOT an integrating instrument?

    A.   Ampere-hour meter
    B.   Watt-hour meter
    C.   Voltmeter
    D.   Both A and B

53. The main reason for the connecting of a pulse transformer at the output stage of the thyristor triggering circuit is to:

    A.   Amplify the power of the triggering pulse
    B.   Provide electrical isolation
    C.   Reduce the turn on time of thyristor
    D.   Avoid spurious triggering of the thyristor due to noise

54. One electron is moving in electric and magnetic fields. It will gain energy from:

    A.   Magnetic field
    B.   Electric field
    C.   Both A and B
    D.   Insufficient Information

55. The function of the starter for a dc motor is:

    A.   To limit the starting current
    B.   To limit the starting voltage
    C.   To increase field resistance
    D.   To reduce armature resistance

56. A battery consists of 44 2-V cells, each with an internal resistance of 0.12 Ω. The voltage of each cell has fallen to 1.8V. It is a requirement to charge the battery at a constant current of 4 A from a charger with an internal resistance of 2 Ω. The applied voltage at the commencement of charge is:

    A.   135.15 V
    B.   163.43 V
    C.   108.32 V
    D.   120.67 V
    E.   130.33 V

57. The ratio of starting torque to full load torque is minimum in:

    A.   Shunt motor
    B.   Series motor
    C.   Differential compound motor
    D.   Cumulative compound motor

58. Photons always propagate with speed c, but light comes into view to travel at a speed diverse from c in an opaque medium. We can explain this fact by _____ in medium by introducing a phase change upon re-radiation.

    A.   Electron oscillators
    B.   Discharge tube
    C.   Cathode rays
    D.   Electromagnetic rays

59. Frog-leg winding is:

    A.   Same as simplex winding
    B.   Same as duplex winding
    C.   Combined lap and wave winding on a single rotor
    D.   Duplex wave winding on a single rotor

60. In the periodic table, semi-conductors belong to:

    A.   Third group
    B.   Fifty group
    C.   Fourth group
    D.   First group

61. In a DC machine without interpoles, to get improved commutation, the brush shift angle must be:

    A.   Varies with change in load
    B.   Kept constant
    C.   Zero degree
    D.   100 degrees

62. If the step response of an initially relaxed circuit is known, then the ramp response can be obtained by:

    A.   Integrating the step response
    B.   Differentiating the step response
    C.   Integrating the step response twice
    D.   Differentiating the step response twice

63. Eddy current losses in a dc machine are given by $B^2f^2t^2V$ where V stands for:

    A.   Voltage generated
    B.   Peripheral velocity
    C.   Linear velocity of conductors
    D.   Volume of iron part

64. Second Cauer's form of reactive network synthesis is the successful removal of:

    A.   Poles at infinity
    B.   Zeros at infinity
    C.   Poles at origin
    D.   Zeros at origin

65. If residual magnetism of a shunt generator is destroyed accidentally, it may be restored by connecting its shunt field:

    A.   to earth
    B.   to an alternator
    C.   to a battery
    D.   in reverse

66. The lines of force are circular and their direction depends upon the direction of:

    A.   Voltage
    B.   Capacitance
    C.   Current
    D.   Resistance

67. The DC compound motors are generally:

    A.   Cumulative compound
    B.   Differential compound
    C.   Levelling compound
    D.   Beveling compound

68. Commutators of 220 V DC generator have brushes which are generally made of:

    A. Copper
    B. Electro graphite
    C. Graphite copper
    D. Carbon copper

69. Power factor of electric bulb is:

    A. Zero
    B. Lagging
    C. Leading
    D. Unity

70. When a number of two port networks are connected in cascade, the individual:

    A. H-matrices are multiplied
    B. Y_{sc} matrices are added
    C. Z_{oc} matrices are added
    D. Chain matrices are multiplied

71. In hot wire instruments the sensing wire is made of:

    A. Copper
    B. Silver
    C. Platinum-iridium
    D. Copper-nickel

72. The direction of the induced e.m.f. during electromagnetic induction can be determined by making use of:

    A. Lenz's law
    B. Faraday's law
    C. Ampere's law
    D. Laplace law

73. In an inductance A.C. circuit, the current:

    A. Lags the voltage
    B. Leads the voltage
    C. Is in phase with the voltage
    D. Both A and B

74. Capacitive susceptance is expressed in terms of:

    A. Farads
    B. Siemens
    C. Micro-farads
    D. Ohms

   A. 30.0 W
   B. 35.2 W
   C. 43.3 W
   D. 26.6 W
   E. 45.4 W

76. If the length of a one side of square is increased by 20% and the other is decreased by 20%, then the area:

   A. decreases by 20%
   B. decreases by 4%
   C. remains the same
   D. increases by 10%

77. A bag containing 7 blue balls and 14 red balls. If one ball is drawn at a random from bag, what is the probability that the ball is blue?

   A. 1/7
   B. 1/3
   C. 1/2
   D. 2/3

78. $(3 \times 0.3 \times 0.03 \times 0.003 \times 30) = ?$

   A. 0.0000243
   B. 0.000243
   C. 0.00243
   D. 0.0243

79. The sum of three numbers is 136. If the ratio between first and second be 2 : 3 and that between second and third is 5 : 3, then the second number is:

   A. 40
   B. 48
   C. 72
   D. 60

80. If "n" varies directly as "m", and "n" is 3 when "m" is 24, then what is the value of "n" when "m" is 11?

   A. 1.375
   B. 1.775
   C. 1.95
   D. 2.0

81. The impedance value of generator is 0.2pu on a base value of 11KV, 50MVA. The impedance value for a base value of 22 KV, 100 MVA is

   A. 0.2pu
   B. 2.4pu
   C. 0.4pu
   D. 0.15pu

82. A lightning arrester connected the line and earth in a power system:

   A. Reflects back travelling waves approaching it
   B. Suppress high frequency oscillations in the line
   C. Protects transmission line against direct lightning stroke
   D. Protects terminal equipment against travelling surge

83. In frequency modulation, noise components which affect the amplitude can be eliminated using:

   A. a differentiator
   B. an oscillator
   C. an fm limiter circuit
   D. a mixer
   E. an rf amplifier

84. Cost of operation of which of the following plants is least?

   A. Gas turbine plant
   B. Thermal power plant
   C. Nuclear power plant
   D. Hydroelectric plant

85. The effect of ice deposition on the conductor is:

   A. Increased skin effect
   B. Reduced corona losses
   C. Reduced sags
   D. Increased weight

86. The protection against direct lightening strokes and high voltage steep waves is provided by:

   A. Earthing of neutral
   B. Lightening arresters
   C. Ground wires
   D. Lightening arresters and ground wires

87. Which of the following directly affects the air standard efficiency of a diesel engine?

    A. Velocity
    B. Torque
    C. Speed
    D. Compression ratio

88. In power plants cooling towers are used to:

    A. Cool exhaust steam
    B. Cool repeated steam
    C. Cool feed water
    D. Cool condenser outlet water

89. Skin effect is proportional to which of the following?

    A. Diameter of conductor
    B. (diameter of conductor)1/2
    C. (diameter of conductor)2
    D. (diameter of conductor)3

90. The capacitor switching is easily done with:

    A. Vacuum circuit breaker
    B. Oil circuit breaker
    C. Air blast circuit breaker
    D. SF_6

91. The characteristic impedance of a transmission line depends upon which of the following?

    A. Geometrical configuration of the conductors
    B. Conductivity of the material
    C. Surface treatment of the conductors
    D. Shape of the conductors

92. A short transmission line has equivalent circuit consisting of:

    A. Series inductance L and shunt capacitance G
    B. Series resistance R and shunt capacitance G
    C. Series resistance R and shunt capacitance C
    D. Series resistance R and series inductance L

93. Shunt capacitance is usually neglected in the analysis of:

    A. Short transmission lines
    B. Medium as well as long transmission lines
    C. Long transmission lines
    D. Medium transmission lines

94. Super-heated steam is always:

    A. At a pressure more than the cooler steam pressure
    B. At a temperature higher than the saturation temperature corresponding to a steam pressure
    C. At a pressure less than the maximum cycle pressure
    D. Separated from water particles before being supplied to the turbine

95. Which of the following are linked by transmission lines?

    A. Service points to consumer premises
    B. Distribution transformer to consumer premises
    C. Generating station to receiving end station
    D. Receiving end station to distribution transformer

96. A load curve is a plot of:

    A. Load versus generation capacity
    B. Load versus current
    C. Load versus time
    D. Load versus cost of power

97. As compared to steam at the entry to the turbine, which of the following will be larger at exit?

    A. Specific volume
    B. Pressure
    C. Flow rate
    D. Specific enthalpy

98. Total load transmitted a 3 phase transmission line is 10,000 kVA at 0.8 power factor lagging. The I^2R losses are 900 kW. The efficiency of transmission line is:

    A. 60%
    B. 95%
    C. 90%
    D. 99%

99. In high voltage transmission lines the top most conductors is:

    A. R-phase conductor
    B. Y-phase conductor
    C. B-phase conductor
    D. Earth conductor

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