1. It transforms the potential energy of the compressed air into mechanical work.
   a. Actuators b. Pressures c. Instruments d. Sensors

C 2. One of the following devices can be used to isolate the control circuit from the load.
   a. Toggle switch b. Circuit breaker c. Relay d. Rotary switch

C 3. If there are 3 identical resistors connected in parallel, the total resistance will be
   a. 4/3 times the individual resistance c. 1/3 times the individual resistance
   b. 3 times the individual resistance d. 2/3 times the individual resistance

D 4. Among the following sensors which one is the input terminal of the PLC?
   a. Lighting b. Liner electrical actuator c. solenoids valve on plant system d. Speed

D 5. It alternately pressurizes & exhaust the two cylinder connections to control the direction of movement
   a. Piercing valve b. Gate valve c. Pressure valve d. Directional valve

A 6. What do you call the two vertical lines of the ladder diagram between which circuits are connected?
   a. Power line b. Power source c. Power branch d. Power rails

D 7. In what mode when changing the contents of memory areas while the PLC is actually in operation
   a. Monitor mode b. Exit mode c. Program mode d. Run mode

B 8. It is a device that measures or manipulates variables such as flows temperature level or pressure
   a. Valves b. Sensors c. Instrument d. Regulator

A 9. Thermo couple are used for the measurement of
   a. Temperature b. Current c. Pressure d. Humidity

C 10. What is the correct PLC operation order?
   a. Logic scan …….. input scan …… self scan ……. Output scan
   b. Output scan …….. Input scan …… self scan ……. Logic scan
   c. Input scan …… self scan ……. Logic scan ……. Output scan
   d. Self scan ……. Input scan …… Logic scan ……. Output scan

B 11. A transformer having 1000 primary turns is connected to a 250 v AC supply for a secondary voltage 400 v, the number of secondary turns should be
   a. 400 b. 1600 c. 1250 d. 250

C 12. It is a device, which converts one form of energy or signal into another form
   a. Sensors b. Actuators c. Transducers d. Pressures

B 13. After completion of rewinding which testing mechanism is correct?
   a. Ventilation of the system test c. Forward/Reverse running test
   b. Low voltage test d. Full load test

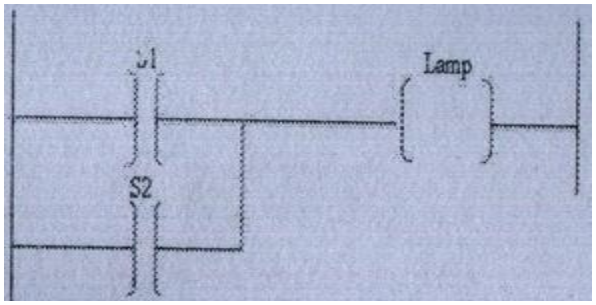
14. These switches are very similar to relays, except a permanent magnet is used instead of a wire coil
   a. Rotary switches b. Float switches c. Reed switches d. Limit switches

A 15. An electronic component which is used as switching device
   a. Transistor b. Zener diode c. Capacitor d. Resistor

D 16. Resistivity of a conductor is mostly affected by:

   a. Composition b. Pressure c. Current d. Temperature

C 17. This ladder diagram describes the program in what operation?



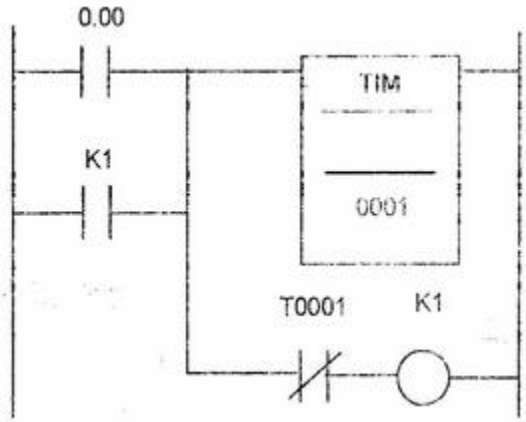
   a. AND – operation b. IF –operation c. OR – operation d. IF - operation

C 18. What is the best initial treatment for skin burns?

a. Cool the burnt skin with cold water
b. Apply alcohol to the burnt skin
c. Apply oil to the burnt skin
d. cool the burnt skin with toothpaste

C 19. Decide whether each of these statement is True(T) or False(F) based on the figure below showing a ladder diagram rung for which

(a) When pressing start push button (0.00) timer 1 will active. Coil (k1) will turn on & (k1) contact will close
(b) After 30 seconds the set time, the coil (10.00) will turn off



a. (1) T (2) F
b. (1) F (2) T
c. (1) T (2) T
d. (1) F (2) F

~~D~~ 20. A linear cylinder which develop thrust in one direction only

a. Rotary actuators
b. Actuators
c. Double acting cylinder
d. single acting cylinder

B 21. The starting winding of a single phase motor is placed in the

a. Rotor
b. Stator
c. Armature
d. field

B 22. The color coded the resistor **brown, black, red, gold** what is the value of the resistance

a. 10k
b. 1k
c. 100k
d. 1000k

B 23. The aim of preventive maintenance is to

a. Increase failure rate of tool or equipment
b. Increase the reliable of a tool or equipment
c. Improve the standard quality of a tool or an equipment
d. Reduce the life span of a tool or equipment

C 24. Which of the following will remain the same in all paths of a series circuit?

a. Voltage
b. Power
c. Current
d. Resistance

A 25. A transformer transforms

a. Voltage & current
b. current
c. voltage
d. frequency

B 26. It is a remotely controlled electromagnetically actuated switch with several contacts

a. Solenoid valve
b. Relay
c. Sensors
d. Coil

C 27. Designed to introduce particles of oil in to the air flow to lubricate the moving parts in the components downstream

a. Valves
b. Pressure
c. Filter drier
d. Lubrications

28. The responsible person to maintain the quality of work performed by a work team

a. Quality assurance
b. worker
c. all members of the team
d. supervisor

D 29. Based on the electron flow concept electrons move from

a. Line 1 to line 2
b. Line 2 to line 2
c. Positive to negative
d. Negative to positive

A 30. In an open loop control system

a. Output is independent of control input
b. Output is dependent on control input
c. Only system parameters have effect on the control output
d. None of the above

B 31. A closed loop system is distinguished from open loop system by which of the following?

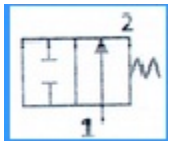
a. Servomechanism
b. Feedback
c. Output pattern
d. Input pattern

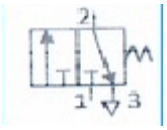
32. In electrical-pneumatic system analogy the current is considered analogous to
a. velocity b. Pressure c. air flow d. Air flow rate

C 33. A.C. servomotor is basically a
a. universal motor b. single phase induction motor
c. two phase induction motor d. three phase induction motor

D 34. Linear variable differential transformer (LVDT)
a. linear variable displacement transformer
b. linear variable displacement transducer
c. used for measuring linear displacement (position).
d. all

Column A	Column B
X 1. 3/2 way directional valve. normally close (NC)	A. Rectifier
I 2. Which DC motor has approximately constant speed	B. Spindle motor
Z 3. Washing machine	C. Varistor
__ 4. One form of energy converts to electrical energy	D. Memory
D 5. Used to store programs & data in computer system	E. Effective communication
C 6. Current limiting device	F. Initiative
A 7. Convert AC to pulsating DC voltage	G. DC series motor
__ 8. Performance of operation or quality of product or service to ensure customer satisfaction is monitored	H. Feed back
	I. Shunt motor
J 9. Is the lack of accuracy	J. Error
W10. 2/2 way directional valve	K. Flow
__ 11. Indicates the tank pressure	L. Pressure gauge
__ 12. Each member co-operating with everyone & assisting other when they need help	M. Successful team work
	N. Quality control
O 13. An instrument used to measure insulation resistance	O. Mega ohmmeter
__ 14. Proper attitude towards work	P. Transmitter
K 15. GPM is a measurement for	Q. Air service unit
B1 16. Voltage transformer	R. Ratio 1:2
R 17. Step up transformer	S. Ratio 2:1
S 18. Step down transformer	T. Hard disk driver
C1 19. Line voltage	U. Reed switch
__ 20. Team member understand how their tasks fit in with other peoples tasks	V. Limit switch
U 21. Contactless sensors	
Y 22. Smoke detector	
A1 23. Current transformer	
__ 24. It conditions the compressed air to provide clean air at optimal pressure & adds lubricants to extend the life of those pneumatic system which need lubrication	
G 25. Which types of motors has a high starting torque?	

W. 

X. 

Y.
Z.
A1

B1

C1 VL= VP 3