

ಕರ್ನಾಟಕ ಪ್ರೌಢಶಿಕ್ಷಣ ಪರೀಕ್ಷಾ ಮಂಡಳಿ  
6ನೇ ಅಡ್ಡರಸ್ತೆ, ಮಲ್ಲೇಶ್ವರಂ, ಬೆಂಗಳೂರು - 560003.  
KARNATAKA SECONDARY EDUCATION EXAMINATION BOARD  
6th Cross, Malleshwaram, Bengaluru - 560003.

ಬಹು ಆಯ್ಕೆ ಪ್ರಶ್ನೆ ಆಧಾರಿತ ಮಾದರಿ ಪ್ರಶ್ನೆಪತ್ರಿಕೆ  
Multiple Choice Question Based Model Question Paper  
2020 - 21

ಪತ್ರಿಕೆ / PAPER - 03

ವಿಷಯ : ಎಲಿಮೆಂಟ್ಸ್ ಆಫ್ ಮೆಕ್ಯಾನಿಕಲ್ ಇಂಜಿನಿಯರಿಂಗ್ ಅಂಡ್ ಎಲೆಕ್ಟ್ರಿಕಲ್ ಇಂಜಿನಿಯರಿಂಗ್ - 2  
Subject : Elements of Mechanical Engineering and electrical engineering - 2  
ಮಾಧ್ಯಮ / Medium : English

ಸಂಕೇತ ಸಂಖ್ಯೆ : 71E ]

[Code No : 71E

ಸಮಯ : 02.30 ಘಂಟೆ]

[Time : 02.30 Hours

ಒಟ್ಟು ಪ್ರಶ್ನೆಗಳ ಸಂಖ್ಯೆ : 50 + 25 = 75]

[Total No. of Questions : 50 + 25 = 75

ಗರಿಷ್ಠ ಅಂಕಗಳು: 50 + 25 = 75]

[Max. Marks: 50 + 25 = 75

Four choices are given for each of the questions/incomplete statements. Choose the correct answer and shade the correct choice in the OMR given to you with a black / blue ball point pen. 50 x 1 = 50

- The combustion of fuel takes place outside the engine cylinder is known as  
A. IC engine  
B. CI engine  
C. SI engine  
D. EC engine
- Only air is enter into the engine cylinder during suction stroke in  
A. diesel engine  
B. petrol engine  
C. gas engine  
D. jet engine
- Diesel engine always works on  
A. otto cycle  
B. diesel cycle  
C. cornot cycle  
D. Rankine cycle
- In two stroke engine every revolution of crank shaft gives  
A. two working stroke  
B. three working stroke  
C. one working stroke  
D. four working stroke
- A carburetor is used to supply  
A. petrol and air  
B. petrol and diesel  
C. petrol and lubricating oil  
D. petrol air and lubricating oil
- The actual power developed in the engine cylinder of an IC engine is known as  
A. indicated horse power  
B. frictional horse power  
C. break horse power  
D. horse power

7. The maximum temperature in the IC engine cylinder is of the order of
- A.  $500 - 1000^{\circ}\text{C}$
  - B.  $1000 - 1500^{\circ}\text{C}$
  - C.  $1500 - 2000^{\circ}\text{C}$
  - D.  $2000 - 2500^{\circ}\text{C}$
8. The minimum piston rings in a piston are
- A. two
  - B. three
  - C. four
  - D. six
9. If petrol is used in diesel engine then
- A. higher knocking will occur
  - B. low power will be produced
  - C. efficiency will be low
  - D. blacksmoke will be produced
10. In a diesel engine the fuel is ignited by
- A. spark plug
  - B. fuel injection
  - C. battery ignition
  - D. heat of the compressed air
11. During refrigeration cycle heat is rejected by
- A. compressor
  - B. evaporator
  - C. condenser
  - D. expansion valve
12. The device used to maintain lower temperature is called as
- A. a.c. cooler
  - B. electric blower
  - C. refrigeration
  - D. refrigerator
13. Air compressor is used to decrease the
- A. pressure of air
  - B. volume of air
  - C. temperature of air
  - D. pressure and volume of air
14. The SI unit of volume is
- A. m
  - B.  $\text{m}^2$
  - C.  $\text{m}^4$
  - D.  $\text{m}^3$
15. The refrigeration process governs by
- A. second law of thermo dynamics
  - B. first law of thermo dynamics
  - C. Newton's law
  - D. Faraday law
16. In a vapour compression refrigeration system the lowest temperature during the cycle occur after
- A. compression
  - B. expansion
  - C. evaporation
  - D. condensation

17. A refrigerant should have the following property
- A. high latent heat
  - B. high boiling point
  - C. high specific heat
  - D. high specific volume
18. For summer air conditioning the relative humidity of air should not be less than
- A. 75 %
  - B. 40 %
  - C. 90 %
  - D. 60 %
19. In winter air conditioning the air is
- A. cooled and dehumidified
  - B. cooled and humidified
  - C. heated and dehumidified
  - D. heated and humidified
20. The refrigerant commonly used for domestic refrigeration is
- A. alcohol
  - B. neon
  - C. water
  - D. ammonia
21. Knurling is the operation of
- A. cutting smooth collars
  - B. under cutting
  - C. roughing the surface for hand grip
  - D. enlarging hole size
22. The grooves on the drills are called
- A. flute
  - B. land
  - C. tang
  - D. body clearance
23. What is the number of jaws in self centered chuck ?
- A. four
  - B. three
  - C. two
  - D. five
24. Lathe bed is usually made of
- A. structural steel
  - B. stainless steel
  - C. mild steel
  - D. cast iron
25. The end of the drill bit is in
- A. round shape
  - B. flat shape
  - C. conical shape
  - D. semi – conical shape
26. Bench drilling machine is also called as
- A. radial drilling machine
  - B. portable drilling machine
  - C. pillar drilling machine
  - D. sensitive drilling machine

27. The following part of a lathe serves as housing for the driving pulleys
- A. carriage
  - B. head stock
  - C. tool post
  - D. tail stock
28. A part useful in turning taper is
- A. apron
  - B. lead screw
  - C. compound rest
  - D. saddle
29. For which of the following operation on a lathe slowest speed is adopted ?
- A. thread cutting
  - B. drilling
  - C. under cutting
  - D. plain turning
30. The tool used for making internal threads is called as
- A. reamer
  - B. drill
  - C. v tool
  - D. tap
31. The principle of electro magnetic induction is found by
- A. Ampere
  - B. Faraday
  - C. Ohms
  - D. Jhon-watt
32. When ever the magnetic flux linking with the coil changes an e.m.f is induced this law is known as
- A. electromagnetic induction
  - B. End rule
  - C. Lenz's law
  - D. Kirchhoffs law
33. The law of electromagnetic induction have been used in the construction of
- A. ammeter
  - B. electric motor
  - C. generator
  - D. volt meter
34. The unit of magnetic flux is
- A. ampere
  - B. volt
  - C. watt
  - D. weber
35. The magnitude of emf induced in a coil is equal to the
- A. rate of change of flux
  - B. rate of change of voltage
  - C. rate of change of current
  - D. rate of change of power
36. No. of fingers used in Flemings right hand rule is
- A. two
  - B. five
  - C. four
  - D. three

37. In India supply frequency is
- A. 100 c/s  
B. 50 c/s  
C. 25 c/s  
D. 75 c/s
38. The time taken by an alternating quantity to complete one cycle is called
- A. frequency  
B. speed  
C. time period  
D. wave form
39. One complete set of positive and negative values is called
- A. r m s - value  
B. average value  
C. amplitude  
D. cycle
40. The number of cycles per second is known as
- A. ohm's  
B. frequency  
C. speed / sec  
D. newton
41. The function of the thermostat in an automatic electric iron is to
- A. reduce the current  
B. limit the current  
C. regulate the heat by switching on & Off  
D. on and off of indicating lamp
42. The heat proof insulating material used in heaters is
- A. porcelain  
B. glass wool  
C. mica  
D. asbestos
43. A regulator is used in ceiling fan circuit to
- A. drop the voltage applied to the fan  
B. increase the torque  
C. decrease the current  
D. increase the speed
44. which appliance works on heating effect of electric current ?
- A. food mixer  
B. table fan  
C. washing machine  
D. toaster
45. Heating materials used in electric iron is
- A. Eureka  
B. nichrome  
C. tungsten  
D. aluminum
46. How many Junctions does the diode consist ?
- A. 2  
B. 3  
C. 1  
D. 4

47. In a P – type semi conductor the majority current carriers are
- A. free electrons
  - B. protons
  - C. valance electron
  - D. holes
48. A diode is a
- A. linear device
  - B. non-linear device
  - C. bi-linear device
  - D. rectilinear device
49. The breakdown voltage of silicon semiconductor diode is
- A. 0.7 V
  - B. 0.9 V
  - C. 0.8 V
  - D. 0.3 V
50. An N-type semiconductor is a semiconductor that has been doped with
- A. trivalent impurity
  - B. pentavalent and trivalent impurity
  - C. pentavalent impurity
  - D. quadravalent impurity

ಕಚ್ಚಾಕಾರ್ಯಕ್ಕಾಗಿ / For Rough Work